

National Human Development Report



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Graduation From Least Developed Country Status

Lao PDR, 2017



GRADUATION FROM LEAST DEVELOPED COUNTRY STATUS

Lao PDR, 2017

The 5th National Human Development Report

Ministry of Planning and Investment, and
United Nations Development Programme
in Lao PDR,
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FOREWORD

In partnership between the Government of the Lao People's Democratic Republic (Lao PDR) and the United Nations Development Programme (UNDP), four National Human Development Reports (NHDRs) have been published to date, the latest on the promotion of employment and livelihood (2009) and on international trade (2006). With the Government and the people having embarked on a journey to graduate from Least Developed Country (LDC) status, there is a pressing need to understand where Lao PDR stands in terms of the graduation criteria, and how the concept of human development can be harnessed to ensure smooth graduation and achieve sustainable development. This 5th NHDR therefore focuses on graduation from LDC status. Similarly to past issues, the preparation of this report—from identification of the topic to finalization—has been based on broad consultations and strong national ownership. A National Advisory Board composed of representatives from different ministries, universities and research institutes has provided guidance throughout the process.

This report provides its readers with an overview of the current status of human development and progress toward graduation from LDC status. It also examines potential benefits and challenges of graduation, explores policy options and proposes actions in selected sectors. The findings show that Lao PDR has made significant progress in human development and poverty reduction and is well on track to graduate from LDC status. This progress, however, is spread unevenly across regions and ethnic groups. Moreover, the country's economic diversification remains limited, backward and forward linkages remain weak, and resilience to economic shocks and natural calamities continues to be low.

The report also highlights that the benefits of graduation do not accrue automatically and pragmatic policies will be required to take advantage of opportunities while managing risks. International and regional integration, for instance, will create opportunities to diversify the economy by promoting areas of Lao PDR's comparative advantage and plugging into regional and global production networks. At the same time, the country needs to overcome the challenges of limited human capital, a small labor force and low investments in human development sectors such as health, education and social protection. To take full advantage of potential opportunities, Lao PDR may need to leapfrog low-end labour-intensive manufacturing, creating competitive advantage in high-value-added niche products. This requires investing in human development.

This report provides policy options at the macro level around the enhancement of fiscal space for human development, improvement of regulations to accommodate diversification and ensure macroeconomic stability, and harnessing of the demographic dividend to enhance the country's human assets and diversify the economy. The Ministry of Planning and Investment (MPI) is confident that this report will provide an important contribution to the implementation of national socio-economic development plans and strategies.



Dr. Kikeo CHANTHABOURY
Vice Minister, Ministry of Planning and Investment

FOREWORD

I am pleased to present the 2017 National Human Development Report for Lao PDR on *Graduation from Least Developed Country status*.

Much has changed since the launch of the last National Human Development Report on employment and livelihoods. In recent years, the economy has continued to grow by around 7 percent per annum, one of the fastest growth rates in the world. The Millennium Development Goal on Poverty has been achieved and Lao PDR has become a lower Middle Income Country as per the World Bank's Atlas method. The value of Lao PDR's Human Development Index has risen to 0.575¹.

The timing of this National Human Development Report is opportune. In 2016, Lao PDR adopted its 8th National Socio-Economic Development Plan for 2016-2020, setting the path for successful graduation from Least Developed Country status, and for economic growth with quality. The National Plan is closely aligned with the Agenda 2030 and its global Sustainable Development Goals, with 60 percent of its indicators linked to the global Sustainable Development Goals indicators. One of the main principles of the Goals is to leave no one behind. This report highlights that Lao PDR continues to face challenges to equitable human development. Incomes have risen, but poverty reduction and consumption lag behind the GDP growth rate and inequalities are increasing. Addressing these challenges will be essential to fulfil the country's aspirations to graduate smoothly from Least Developed Country status.

The report is a collaboration between the UNDP in Lao PDR and the National Economic Research Institute, compiled by a team of Lao and international experts. It is intended to be an analytical tool to stimulate debate, contribute to the policy options and choices of Lao PDR, and inform the important decisions that will accompany its graduation from Least Developed Country status.

I would like to thank and congratulate the authors, in particular Dr. Sitthiroth Rasphone, Dr. Sarthi Acharya and Dr. Anis Chowdhury. My sincere appreciation also goes to the many Government experts and the colleagues within the UN Team in Lao PDR who contributed to the report with their valued advice.



Kaarina Immonen
UN Resident Coordinator
UNDP Resident Representative in Lao PDR

¹ Human Development Index Value as of 2014

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This 5th National Human Development Report supplements the 8th National Socio-Economic Development Plan in analyzing the progress of Lao PDR in graduating from LDC status. It also explores the potential benefits and challenges of graduation. Moreover, it provides policy options for the Government to consider, to guarantee a smooth graduation and sustainable development of the country.

Appreciation goes to the co-authors, Dr. Sarthi Acharya and Dr. Sitthiroth Rasphone and technical advisor Dr. Anis Chowdhury, for directing the process that led to the successful finalization of this report. They received strong support from Ms. Amphaphone Sayasenh, who assisted with research, data collection and processing, as well as valuable inputs throughout the process. Special thanks go to Dr. Leeber Leepouapao, the former National Director of the project, and his management and coordination team in the National Economic Research Institute (NERI), for their excellent support in management administration during the entire duration of the project.

The National Advisory Board has played a key role in providing guidance throughout the process, in particular, the Chair, Dr. Bounthavy Sisouphanthong, who guided the selection of research themes and provided comments on various drafts.

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Vientiane, December 2016

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Executive Summary

Human development (HD) is about the real freedom ordinary citizens have to decide who to be, what to do, and how to live. HD is an integral part of fundamental human rights and the ultimate aim of sustainable and inclusive development.

The 5th National Human Development Report (NHDR) examines different facets of underdevelopment in the Lao People's Democratic Republic (Lao PDR) that classify it as a Least Developed Country (LDC). To a great extent, the Human Asset criterion and its indicators used for LDC classification are the same as those that categorize a country's level of HD. In the continuum of HD, LDC graduation is one of the early milestones a country has to reach. Improving HD is essential for smoothly moving out of LDC status. Therefore, the LDC graduation process has to be viewed from the perspective of HD.

Key Findings

Human Development

Lao PDR has made impressive progress in human development and poverty reduction. Lao PDR's HDI value rose from 0.340 in 1980 to 0.575 in 2014. With the decline in the poverty rate from 46% in 1992/93 to slightly over 23% in 2012/13, Lao PDR achieved the Millennium Development Goal (MDG) target of reducing the poverty rate by half. The progress towards other MDG targets has also been encouraging. Between 2002/2003 and 2012/2013, the literacy rate rose from about 75% to 83%. Net enrolment at the primary school level increased from around 84% in 2005/2006 to about 98% in 2013/14 (nearly universal). Lao PDR is on track to meet the MDG target of reducing the under-5 mortality rate, which has fallen from 146 in 2001 to 79 in 2011 (and to an estimated 70 in 2015). Infant mortality dropped from 116 to 68 during the same period. Maternal mortality has also fallen dramatically, from 796 in 1995 to 357 in 2009 (and to an estimated 260 in 2015).

However, Lao PDR's progress in poverty reduction and human development are uneven both across its regions and among its ethnic groups. Poverty and deprivation are concentrated in particular regions (usually remote and rural areas) inhabited by ethnic communities. After a secular decline until 2007/2008, the poverty rate in the Southern region increased in 2012/2013, and is 6 percentage points higher than the national rate. The Northern region also has a higher poverty rate. Nearly half the population in Saravane and over 40% in Bokeo and Sekong live in poverty, in contrast to just 6% in the capital city. Poverty is markedly higher in rural areas, at 28.6%, compared with 10% in urban areas. This gap increased over the past five years as urban poverty fell at a faster pace. Poverty is largely concentrated among minority (non-Lao-Tai) ethnic groups, the less educated and those who primarily depend on family farming or are unemployed.

As a result, the level of human development is low in some regions and among non-Lao-Tai ethnic groups. The provincial HDI values range from 0.771 (Vientiane Capital) to 0.286 (Khammuane). At the bottom of the list are Phongsaly (North), Saravane (South) and Khammuane (Centre). In relative terms, Champasack's HDI rank fell from 5 in 2003 to 9 in 2013, while Bokeo, Huaphanh and Khammuane lost

more than five ranks during the same period as their progress on the HDI lagged behind others. Non-Lao-Tai minorities constitute two thirds of people without formal education. Net secondary enrolment in Lao PDR as a whole is almost 50%, but it is as low as 31% in Phongslay and Saravane, and as high as 82% in Vientiane Capital. There are also large gender disparities in both poverty and the level of human development. Less than 60% of women in poor households can read and write, compared with over 80% of males in poor households.

The increase in inequality and spatial disparities, together with high vulnerability, has slowed the pace of Lao PDR's progress in poverty reduction and human development. A large number of people live just above the poverty line and remain vulnerable. Two thirds of the population in Lao PDR live on less than \$2 (PPP) per day, compared with the poorest 10% in Thailand and Vietnam. The per capita consumption of 60% of those who moved out of poverty between 2007/2008 and 2012/2013 was no more than 50% above the poverty line. About half of the poor in 2012/2013 were previously non-poor in 2007/2008 and more than two thirds of them had been non-poor at some point during the past 10-year period. They have fallen back into poverty due to small shocks to their livelihoods, having been unable to maintain their health and nutritional level, and having had to withdraw their children from schools.

Inequality is detrimental to human development, and thwarts efforts to graduate the country out of its LDC status. The inequality-adjusted HDI value was some 24.4% lower than the unadjusted HDI value in 2011-2013. If inequality remained at its 1992/1993 level, poverty incidence would have declined from 46% to 17%. That is, with an unchanged inequality situation, national poverty incidence would have fallen 28% more rapidly than it actually did. Poverty could also have declined faster had a large number of vulnerable households not fallen back into poverty. This has significant implications for Lao PDR's aspiration to graduate out of its LDC status. Crop failures and health shocks are main drivers of household vulnerability.

LDC Graduation

Lao PDR seems on track to graduate from its LDC status. Lao PDR's three-year average (2011-2013) GNI per capita was roughly US\$1,232, about 99% of the threshold (US\$1,242). Its GNI per capita in 2018 is projected to exceed the graduation threshold and will be substantially above the level in 2021, provided the threshold does not change significantly. If the gross national product (GDP) growth rates are as high as the 8th Five-Year Socio-Economic Development Plan (NSED) forecasts, Lao PDR's GNI will be double the income graduation threshold, and the country should graduate out of being an LDC in the 2020s irrespective of what happens on the Human Assets Index (HAI) or Economic Vulnerability Index (EVI).

However, Lao PDR's economy lacks the structural economic transformation and diversification required for smooth LDC graduation. The major part of recent GDP growth has stemmed from low-productivity agriculture and the capital-intensive natural resources sector. Although the share of agriculture in GDP declined from 41% to 27%, its share in employment did not decline commensurately, still accounting for over 60% of the economy's total working hours. The fast-growing mining, electricity and gas sector accounts for only 1% of total working hours. The manufacturing sector's share in total working hours stagnated at 8% during 2008-2013. Thus, Lao PDR's growth has not been inclusive and broad based.

Lao PDR's export structure is also narrow. Roughly 80% of Lao PDR's exports are primary products, and labour-intensive clothing and footwear manufacturing accounts for only 13% of total exports. Three countries—Thailand, China and Vietnam—absorb close to 70% of Lao PDR's exports.

Backward and forward linkages in Lao PDR's manufacturing sector are weak. About 51% of manufacturing value added generated within the country is composed of inputs from the primary sector—not from manufacturing itself, or the agriculture or services sectors. Domestic value added (49%) in exports from Lao PDR's manufacturing sector is below other countries such as Bangladesh (88%), Cambodia (76%), Thailand (80%) and Vietnam (64%).

Lao PDR's exposure to economic vulnerability remains high due to overdependence on the agriculture and resource sectors. Its narrow export base and high susceptibility to natural disasters also contribute to high economic vulnerability. In 2015 Lao PDR's EVI was 36.2 (i.e. 88% of the threshold). Its EVI gap is the largest compared with gross national income (GNI) and HAI value. Lao PDR's relative position vis-à-vis other LDCs is also worse on the EVI than on the other two indices, with 16 LDCs having lower EVI than Lao PDR.

Given the composition and direction of Lao PDR's exports, its LDC graduation should not affect trade prospects, beyond the usual competition it currently faces. Lao PDR's access to Thailand, China and Vietnam is not dependent on its LDC status. Its export of manufacturing, especially of those products enjoying preferential access to developed countries, is limited. The only area that might be affected is concessional external finance—official development assistance (ODA) and International Development Association (IDA) facilities—and technical assistance. However, ODA has been on the decline for some time, and most development partner (DP) countries still lag behind fulfilling their ODA commitments.

Challenges

Lao PDR's human capital is very low. Its labour force is the least literate and numerate in the South-east Asian region. An Early Grade Reading Assessment showed that over 30% of 2nd graders could not read a single word, and among those who could read, 57% did not understand what they had just read. Language is a serious barrier for the minority ethnic communities. Lao PDR also has shortages of vocational skills.

The size of Lao PDR's labour force will remain very small. The current size of Lao PDR's labour force (aged 15-64) is 4.2 million. It is projected to increase to 5.6 million in 2030, and to only 7 million in 2050. On the other hand, the size of the labour force in Cambodia is projected to increase from 10 million in 2015 to 12.5 million in 2030, and to 14.8 million in 2050. Myanmar will have a labour force of 41.7 million in 2030 and 43.1 million in 2050.

Therefore, Lao PDR cannot follow the diversification path of early industrializers in the region, which were largely labour surplus economies. Lao PDR is likely to face more intense competition from other labour surplus countries in low-end, assembly-type production than the early industrializers confronted, especially in a more globalized economy. Lao PDR cannot compete in the shifting labour-intensive activities for long with its small labour force —labour surplus countries Cambodia, Myanmar and Vietnam will have an edge.

Lao PDR's current public expenditure on education, health and social protection is low compared with its partners in the Association of Southeast Asian Nations (ASEAN) and many other LDCs. For example, public spending in Lao PDR on education during the period 2005-2014 was only 2.8% of GDP, against Vietnam's 6.3%. In landlocked LDCs Nepal and Bhutan, which have similar resource endowments and topography, it was 4.7% and 5.5% of GDP, respectively; the average for the LDCs was 3.4% of GDP. The picture is very similar in public health spending. Lao's public expenditure of 2% of GDP on health in 2013 was far below Vietnam and Nepal's 6% of their respective GDPs, and the LDC average of 5.2%. Lao PDR's public expenditure on social protection in 2011 was 0.9% of GDP, below Cambodia's 1.0%, Bhutan's 1.2%, Nepal's 2.1%, Thailand's 3.6% and Vietnam's 4.7%.

Lao PDR's integration into the ASEAN Economic Community (AEC) can make the situation more challenging. Tariff cuts required for full integration are likely to adversely affect the Government's fiscal revenue. Lao PDR has already reduced tariff rates to zero for 79% of all products listed under the region-wide Common Effective Preferential Tariff (CEPT) and by 2015 some 8,879 listed products had zero tariffs. Lao PDR may also face pressure to cut corporate tax rates in a race to attract foreign investment. Prospects for compensating revenue losses by expanding value added tax (VAT) are limited, due to the dominance of agriculture and informal business activities. VAT is also regressive and its expansion may worsen inequality. Corporate tax cuts may result in net revenue loss if they fail to attract enough foreign investment, as is evidenced elsewhere. In addition, with tariff cuts, Lao PDR may not have enough policy tools to protect its nascent manufacturing sector.

The AEC is more likely to bring "production integration" more than market integration. Intra-ASEAN trade and investment are still very limited, constituting about 25% of total trade and 16% of total foreign direct investment (FDI). Major exports and imports among ASEAN countries are parts and components of electronics and automotive products. Thus, intra-ASEAN market integration is not a major driver of ASEAN integration. More FDI into the resource sector and participating at the lower end of the global/regional value chain would not be very beneficial for Lao PDR in the long term. Lao PDR must be able to participate at the higher end, for which it needs to increase the stock of human capital, improve connectivity and strengthen its institutions as well as its governance capabilities.

Opportunities

Lao PDR has the youngest labour force in the region and is expected to benefit from demographic transition. The share of the population of working age (aged 15-64 years) in Lao PDR is projected to increase to 69% in 2050, compared with 68% in Myanmar, 65% in Cambodia and 62% in Vietnam.

ASEAN economic integration should create more opportunities for Lao PDR to grow and diversify in different directions. Within the AEC, there should be expansion of infrastructure and the regional value chain. Lao PDR has been able to attract a number of multinational companies during the past few years, which has resulted in rapid growth in the assembly and equipment parts sectors (such as camera parts), indicating Lao PDR's potential to effectively participate in regional and global value chains.

Lao PDR should also gain comparative advantage from AEC integration in a number of areas. They include: agro-processing (from the emerging agricultural surplus, such as in tea and coffee), value-added cultural and eco-tourism, organic agri-horticulture and high-value-added secondary wood products, which the Lao PDR Government has already identified.

With the free flow of skilled workers there is the possibility of more skilled workers coming to Lao PDR, which should help the transfer of technology/skills to Lao workers. There are also opportunities for Lao PDR to enhance the quality of education through exchange and twinning arrangements with high-standard educational institutions in advanced ASEAN countries such as Singapore and Malaysia.

Policy Options

Lao PDR's human asset needs accelerated improvement. In 2015, Lao PDR's HAI value was about 92% of the LDC graduation threshold. An analysis of marginal contributions of individual components of the HAI shows that a maximum increase in the HAI would occur if the nutritional status of the population were to increase, followed by an increase in the literacy rate, then an increase in secondary school enrolment and, lastly, a reduction in U5MR—all are elements in the HDI.

Lao PDR needs to give immediate attention to reducing its economic vulnerability. A decomposition analysis of the EVI shows that economic diversification and reducing the exposure of the population to natural disasters are critical for lowering the EVI value. Universal social protection is vitally important to protect human development gains from shocks and misfortunes. A good starting point is to urgently consider the recommendations of the Assessment-Based National Dialogue on Social Protection carried out under the oversight of the Government's Drafting Committee for the National Social Protection Strategy.

Therefore, Lao PDR needs to leapfrog and create competitive advantage in high-value-added niche products. This is necessary to rapidly draw its large agricultural labour force to high-productivity, non-farming activities in the manufacturing and services sectors, and also to lift the productivity of the agriculture sector where the vast majority of the poor live and work. Creating backward and forward linkages among manufacturing, agriculture and services sectors by linking small and medium-sized enterprises (SMEs) to the supply chain and production network is key. Improving access to low-cost finance is vital for SMEs.

Measures are also needed to raise agricultural productivity. These include consolidation of land holdings to make them economically viable for the use of modern technology, use of irrigation that is suitable for the topography, provision of low cost financial services, improved extension services and connection of farmers to the market.

Financial inclusion plays a critical role for both small and medium-sized enterprises (SMEs) and agriculture. In 2014, only 32% of SMEs had a line of credit or an outstanding loan from the formal sector. Financial inclusion cannot be taken for granted since financial institutions when left to themselves will prefer profitable market segments. As the experience in Bangladesh, India and the Philippines shows, a combination of incentives, prudential regulation and specialized public financial institutions is needed to enhance access to finance by SMEs and farmers.

Lao PDR needs prudential regulations to ensure competition, financial sector stability and inclusive finance, as well as to prevent environmental degradation. But these should not be so overbearing as to discourage private investment or encourage rent-seeking behaviour.

Lao PDR has to depend more on generalized policy instruments for economic diversification. It needs better institutions, improved governance, stronger research and innovation capacity and a skilled labour

force. This would require investment in quality education, skill development and better health care. The starting point, of course, is to improve literacy and numeracy as well as the nutritional level of its growing labour force.

Lao PDR also needs to build job-relevant technical skills. A more strategic role of the government in vocational skills development is needed to develop policies, set standards, invest in training materials and instructors, improve public information about the training system and carry out training evaluations. Important lessons can be learned from advanced ASEAN countries such as Singapore on how to involve the private sector in apprenticeship programmes and on-the-job training.

Lao PDR has to ensure that its macroeconomic policy framework is consistently countercyclical. This is essential to minimize the impact of external economic shocks and to protect human development gains. Financial inclusion is also important for mitigating households' economic vulnerability. In 2014, only 7% of the population aged 15 years or more borrowed from the formal sector.¹ Digitization of the financial sector and mobile phone technology can contribute significantly, as the experience of Bangladesh shows. There is also a need to improve financial literacy, especially of the poor.

Lao PDR needs to strengthen domestic resource mobilization efforts, including better debt management, greater profitability of state-owned enterprises and judicious use of resource-rent. This is necessary to be able to invest in human development and infrastructure in support of economic diversification in view of the potential loss in tariff revenues and decline in access to concessional external finance.

Lao PDR has to harness its resource sector in a sustainable manner to minimize vulnerability to natural disasters. Therefore, this would require Lao PDR to strengthen its capacity to assess the environmental impact of mining and hydroelectric projects.

Lao PDR needs to deepen its technical cooperation relationships with its ASEAN partners and China. This is required to compensate for any post-graduation drop in technical assistance from DPs. Stronger South–South cooperation is the way to go.

An integrated approach to policy and implementation is necessary for enhancing the efficiency of public expenditure and maximizing synergies. Education, health, nutrition and social protection are interlinked: improvement in one area contributes to improvements in others.

Donor support coordination is critical for aligning with government's strategies. Lack of donor coordination leads to fragmentation and threatens long-term sustainability. It also creates a management and reporting burden on the Government.

Concluding Remark

Even though Lao PDR has made definitive progress in HD and on all the three criteria of LDC graduation, there is no room for complacency. *Heightened commitment to human development is needed, not only to reach LDC graduation thresholds but also to face the post-graduation challenges and to reap the benefits from openness, especially the country's full AEC integration.*

Besides this “instrumental value”, HD also has “intrinsic value”. Expanding human capabilities is the ultimate aim of sustainable and inclusive development. Therefore, *Lao PDR needs to take a “right-to-*

development” approach to raise public expenditure on education, health and nutrition on a sustained basis. It is essential not only for raising its human asset as required for smooth LDC graduation, but also to expand the capabilities of its citizens.

HD can act as social glue in an ethnically and geographically diverse country like Lao PDR. Given the regional disparities and deficits among ethnic communities, *the Government may wish to initiate national dialogue for a social compact around some achievable HD targets in provinces and among ethnic communities.*

Introduction

Human Development Pathway to LDC Graduation

Expanding human capabilities is the ultimate aim of sustainable and inclusive development. However, besides this “intrinsic value”, human development (HD) also has “instrumental value”. Improving HD is essential for smoothly moving out of LDC status. By and large, the criteria (and indicators) for classifying a country as an LDC are the same ones that categorize a country’s level of HD. In the progressive attainment of HD, LDC graduation is one of the early milestones a country requires to reach. Therefore, the LDC graduation process has to be viewed from the perspective of HD.

The Government of Lao PDR, at the Party’s Sixth Congress in 1996, spelled out its ambitious development goal of graduating the country out of LDC status. Since then, this goal has been reiterated in many policy documents. However, it was not until early 2012 that the formal graduation criteria and processes were carefully examined and concretely incorporated into development plans and strategies. The 8th Five-Year NSEDP (2016-2020) is the first policy document to put the LDC graduation goal explicitly among other social and economic development goals.

This 5th National Human Development Report (NHDR) examines different facets of underdevelopment in Lao PDR that classify it as an LDC. Of particular focus is the level of HD, which is vital for overcoming deficits in the Human Assets Index (HAI) to qualify for smooth LDC graduation. This introductory chapter provides an analytical framework for the 5th NHDR. It shows the linkage between human development and LDC graduation and highlights the human development pathway to smooth LDC graduation.

Linkages between Human Development and LDC Graduation

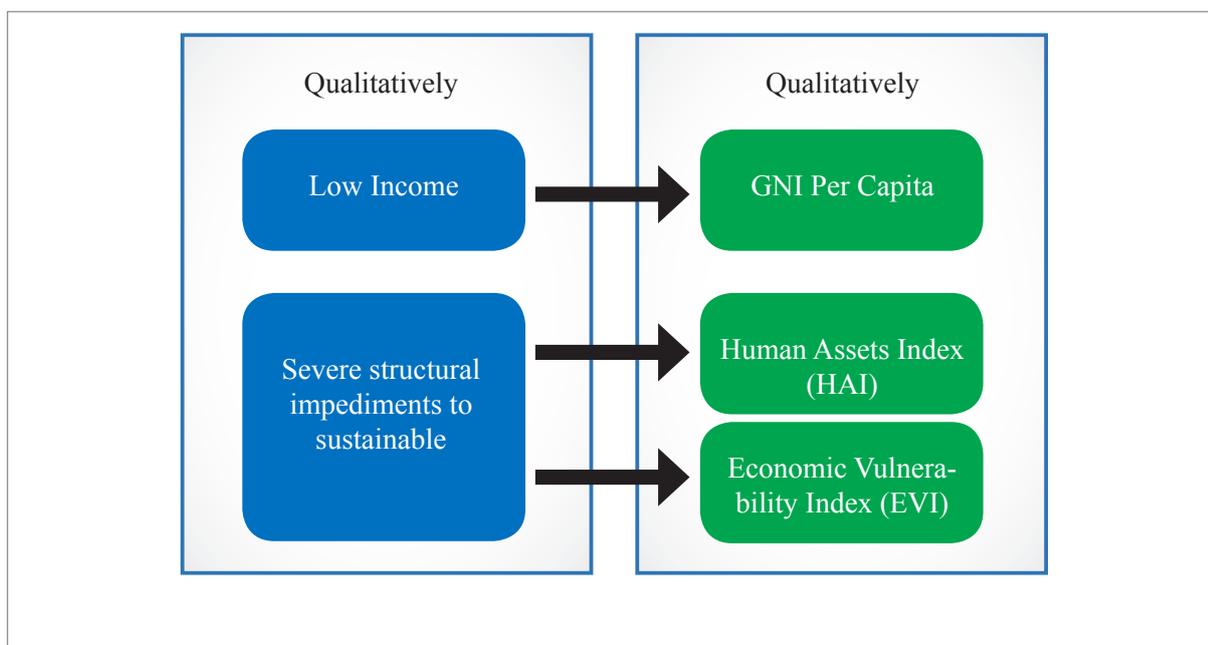
A Least Developed Country, according to the United Nations (UN), is one that exhibits the lowest indicators of socio-economic and human development in the ranking of all countries. The concept of

LDCs originated in the late 1960s, with the objective of identifying the most disadvantaged developing countries in order to provide them with special assistance. The UN in its resolution 2768 (XXVI) of 18 November 1971 listed the first group of LDCs. A country is classified as an LDC if it meets the following three criteria:

1. Low income per capita: The indicator is GNI per capita. The threshold for this criterion is a three-year average, as calculated by the World Bank. In 2015, countries with less than US\$1,035 (current nominal) GNI were classified as LDCs.
2. Limited human capital: A composite index of nutrition, health, education and adult literacy (the HAI), is constructed to measure the level of human asset of a country. Countries are classified as LDCs if their HAI value falls below a defined threshold. From 2018, the index will also include the Maternal Mortality Ratio (MMR).
3. High economic vulnerability: The Economic Vulnerability Index (EVI), composed of instability in agricultural production, instability in exports of goods and services, economic importance of non-traditional activities, merchandise export concentration, handicap of having a small population (and thus small markets), and proportion of the population affected/displaced by natural disasters, is constructed to measure a country's economic vulnerability. Countries are classified as LDCs if their EVI value is above a defined threshold (the lower the EVI, the less the vulnerability).

To graduate out of LDC status, a country must cross two of these three thresholds. Alternatively, if its GNI exceeds \$2,484 (as in 2015 ~ twice the threshold), it can qualify to be outside this list.² A pictorial view of the status of an LDC is presented in Figure 0.1, while the measurement details are in Box 0.1.

Figure 0.1: Least Developed Country – A Pictorial View



Source: Zhau, J. (n.d.).

Box 0.1 LDC Graduation Criteria

Currently, there are 48 countries classified as LDCs, of which 34 are in Africa, 12 in Asia (with 4 from South-east Asia, namely Cambodia, Lao PDR, Myanmar and Timor-Leste) and 1 (Haiti) in Latin America. The remaining four are small island states in the South Pacific Ocean. Almost all LDCs are small in terms of population (save a few, such as Bangladesh), some are landlocked and many are transitional economies adjusting to the market environment. Each of these attributes contributes to their state of underdevelopment. So far, only four countries have graduated from being LDCs. The list of LDCs is presented in Appendix 0.1.

The UN assesses countries' LDC graduation process by reviewing the development of these countries on three criteria. The LDC graduation process takes almost a decade: first, the country must qualify in two triennial reviews through which it has to maintain (and improve upon) the criteria, and a gestation period of five years then follows.

LDCs receive a number of concessions with regard to aid, trade, and market access, mainly to countries in the Organisation for Economic Co-operation and Development (OECD). Most of these being low-income countries, they are also eligible for concessional loans and other supports from multilateral agencies, such as the World Bank and the International Monetary Fund (IMF).

The three components of LDC graduation criteria are defined as follows:

1. Gross national income (GNI) per capita
2. Human Assets Index (HAI) – composite index
 - a. Percentage of population undernourished (1/4)
 - b. Under-5 mortality rate (1/4)
 - c. Gross secondary enrolment ratio (1/4)
 - d. Adult literacy rate (1/4)
3. Economic Vulnerability Index (EVI) – composite index
 - a. Population (1/8)
 - b. Remoteness (1/8)
 - c. Merchandise export concentration (1/16)
 - d. Share of agriculture, forestry and fisheries in GDP (1/16)
 - e. Share of population in low-elevated coastal zones (1/8)
 - f. Victims of natural disasters (1/8)
 - g. Export instability (1/4)
 - h. Instability in agricultural production (1/8)

Notes:

- Figures in brackets are the weightings.
- Only those countries that request to be classified as an LDC are assessed and, if they fall below the thresholds described above, are declared so. Additionally, countries, although consulted, need not agree to graduation to be recommended by the UN Committee for Development Policy (CDP).
- The three criteria are assessed independently. They are not combined to form another composite index.
- Since the three indices are relative to the performance of other countries in the world, the goalposts change from time to time.
- For a country to graduate from the LDC category, it no longer needs to satisfy two criteria in two successive triennial reviews.
- The CDP recently introduced the "income-only" criterion by which, if an LDC's GNI per capita is at least twice as high as the income graduation threshold, it is qualified for graduation.

LDCs have less developed overall infrastructure and fewer modern institutions for the efficient delivery of services or governance, including monitoring and evaluation (M&E), than do other countries. Their higher educational and/or research organizations, judiciary, banking systems, business corporations and

the like are also less than adequately developed to match or compete at the international or regional levels. Furthermore, they have little capacity to engage with modern (international) market frameworks or adjust to rapid changes that happen in the larger markets or market-driven socio-economic order without external assistance.

International conventions and treaties have been framed to assist LDCs in a number of areas listed in Box 0.2 (the Istanbul Declaration—the IDPA). They cover technical assistance (TA) to build capacities, economic assistance (including debt relief) to support socio-economic development, and trade facilitation to reduce dependency on commodity exports, thereby boosting GDP/GNI.³

Therefore, a country graduating out of LDC status stands to lose these advantages. However, when a country graduates out, it is expected to maintain economic growth, have internal capacities and resources to invest in human capital, negotiate independently with other countries for trade and financial flows, establish newer forms of global partnerships, and so on. Also, the development partner (DP) countries often change their priorities towards those countries which have attained a certain development status, although there may be other reasons for their doing so.⁴

Box 0.2: Istanbul Declaration and Programme of Action (IDPA), 2011 – A Brief

At the Fourth UN Conference on the Least Developed Countries, held in Istanbul 9-13 May 2011, the UN adopted the Programme of Action for the Least Developed Countries covering the period up to 2020, known as the Istanbul Programme of Action (IPOA). This is a sequel to the Brussels Programme of Action (BOPA) covering the period 2001-2010.

The IPOA suggests a vision and strategy of the international community for sustainable development of the LDCs, with a strong focus on scaling up their productive capacities. A broad range of actors is expected to contribute to the IPOA implementation, including DP countries, developing countries, the private sector, civil society, the UN system and international and regional financial institutions.

Based on the lessons learned during the 10-year implementation of the BOPA, the IPOA builds upon and develops a number of principles, goals and objectives, and also identifies priority areas for action. The overarching goal is to overcome structural challenges to the LDCs' achieving rapid growth, eradicating poverty, achieving internationally agreed development goals and reducing vulnerabilities, and address new challenges including the effects of interlinked food, fuel and economic crises and climate change. The IPOA also aims at generating full and productive employment (i.e. decent work) for all, particularly for youth.

Principles

The first principle stresses that the ownership, leadership and primary responsibility for their development lie with the LDCs. The principle of the balanced roles of the State and market entails a shift in the development strategy for the next decade, emphasizing the active role of the State. Other principles include an integrated approach, in which the development process in LDCs should be viewed in a comprehensive and holistic manner—genuine partnership and solidarity, result orientation, human rights, equity and participation.

Objectives and Priority Areas for Action

1. Achieve sustained, equitable and inclusive economic growth by strengthening productive capacity (especially to strengthen agriculture, reduce commodity trade dependence and increase trade).
2. Build human capacities by fostering sustained, equitable and inclusive human and social development, gender equality and the empowerment of women.
3. Strengthen resilience to reduce vulnerability of LDCs to economic, natural and environmental shocks and disasters.
4. Ensure enhanced financial resources and reduce debt burden.
5. Enhance good governance.

Value Additions and Key Deliverables

1. Actively engaging civil society, the private sector and parliaments.
2. Committing the DPs to integrating IPOA into their cooperation policy framework, and LDCs into their development strategies.
3. Doubling the share of LDCs exports in global exports by 2020 and the commitment to ensuring timely implementation of duty-free, quota-free (DFQF) market access on a lasting basis for all LDCs.
4. Reaffirming official development assistance (ODA) promises by 2015 and reviewing ODA commitment for enhancing resources to LDCs after 2015.
5. Enhancing the share of assistance to LDCs.
6. Adopting investment promotion regimes by the DPs.
7. Emphasizing technological innovation and technology transfer to LDCs, including DP commitments to provide financial and technical support.
8. Developing risk mitigation strategies for crisis mitigation and resilience.
9. Calling for the establishment and operationalizing of a Green Climate Fund, and calling for pledges by DPs to promote clean development mechanisms.
10. Extending the existing travel-related benefits to delegates of the graduated countries for a period appropriate to their development situation.
11. Confirming mutual accountability of LDCs and DPs for delivering their commitments.
12. Ensuring good governance, gender equality and the rule of law, and strengthening representation of LDCs at international forums.

Source: UNCTAD (2015).

Human Development: A Pathway for Moving Out of LDC

Human development (HD) as an approach to development is well known. Stated succinctly, the HD paradigm propagates the expansion of people's capabilities or freedoms and opportunities for improving their well-being. It is about the freedom that ordinary people should have to decide what they wish to be and do, and how they wish to live. The HD concept focuses on creating opportunities and choices for all peoples.⁵ The HD paradigm is presented in Box 0.3. In practical terms, HD entails extending to the people at large good health, skills and education, and creating wealth through their active participation in socio-economic development. Since moving out of LDC status also requires raising people's education and skill levels, improving their health and raising their incomes in a sustainable manner, there is a near-total correspondence between a country having low (or medium) HD and it being an LDC, and vice versa.

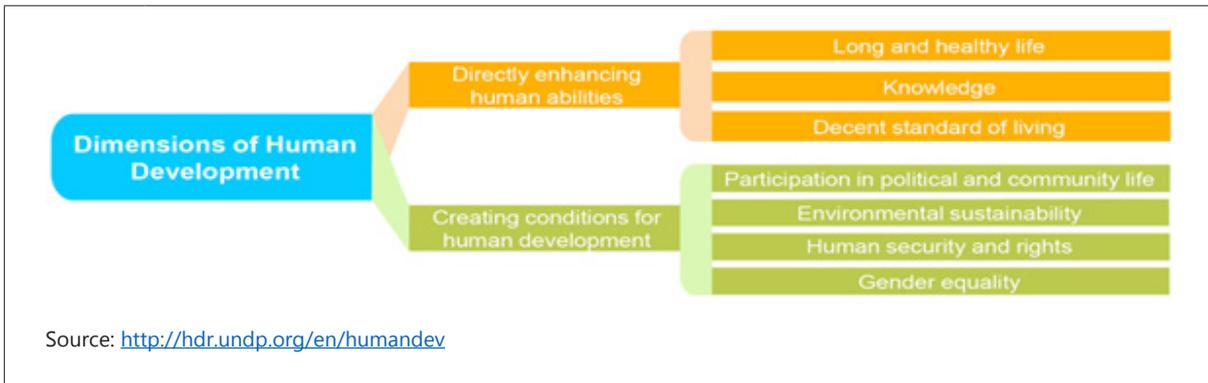
Box 0.3: Human Development

People

The human development approach focuses on improving the lives people lead rather than assuming that economic growth would eventually result in greater opportunities for all. Income growth is an important means to development rather than an end in itself.

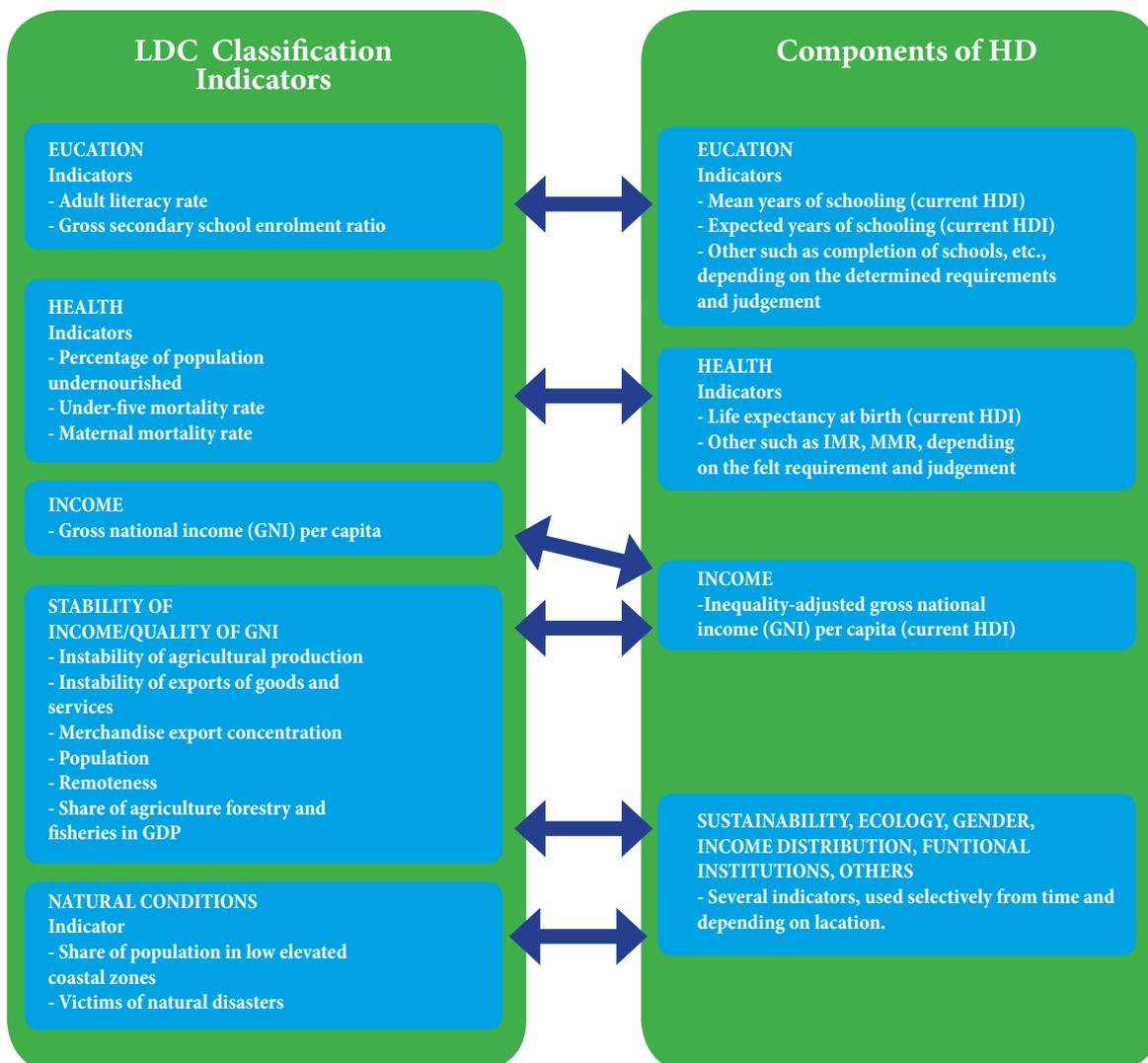
Opportunities

Human development is about giving people more freedom and opportunities to live lives that they cherish. It implies raising people's abilities and creating opportunities to use them. The three fundamentals of human development are to live a healthy and creative life, to be knowledgeable, and to have access to resources needed for a decent standard of living. There are other aspects as well: environmental sustainability, gender equality, democracy and freedom. A schema of HD is presented below:



Being a highly flexible and developing paradigm, HD accommodates all the requirements of moving out of LDC status. In fact, indicators that define a country as an LDC also fall within the broad paradigm of human development and this is evident from Figure 0.2, which shows this correspondence. While the exact definitions of indicators and components in the two may differ, the concepts are the same, being related to human endowment (education and health) and income.

Figure 0.2: Indicators of LDC classification and components of human development



Note:

- Both LDC indicators and HD components are relative to the performance of other countries on these indicators.
- The Human Development Index (HDI) is not HD; it is only one of the indicators of HD. The HDI is an index while HD is a paradigm of development.

HD is a continuous process of improving human well-being through sustainable and inclusive growth. It is multifaceted, enveloping different aspects of development: economic growth, social development, equity, gender parity, democracy, people's participation and decentralization, to name a few. *In this smooth continuum, LDC graduation is one of the early milestones that a country requires to reach, and the LDC graduation process has to be viewed in this context (Box 0.4).*

Box 0.4: Moving out of LDC Status

Question: How do LDCs move out of their LDC status?

Answer: They should rapidly promote inclusive socio-economic growth and human development with a focus on improving education and health and empowering people to earn remunerative incomes in a sustainable manner. As the incomes of all people at large increase, the GNI also increases. In the process, the country reaches the LDC milestone and moves ahead.

It is not the index that a country's authorities need to chase; rather, it is the other way around. They should embark upon the path of promoting rapid human development, and the country should climb out of LDC status along the way.

HAI, EVI and GNI per capita are related. If people are better educated/skilled and healthy (high HAI value), they can engage in different activities to create more income and wealth (high GNI per capita/low EVI value). The converse also holds true: a low HAI value would keep GNI low, and/or also raise the EVI values.

Data suggest that countries with low HAI or high EVI values are also the ones with low GNI per capita, with a few exceptions, such as the petroleum-producing countries.

In sum, improving HD contributes directly to raising the HAI value, lowering the EVI value and increasing GNI per capita, smoothing the process of LDC graduation.

Fifth Lao PDR National Human Development Report

This 5th NHDR of Lao PDR is an outcome of national discussion on graduating the country out of its LDC status. As mentioned above, moving out of LDC status requires improving HD; therefore, this report attempts to examine the current status of HD and proposes measures to scale up, such that the country moves smoothly out of being an LDC in the near future and continues to progress. Thus, it also examines post-graduation challenges, especially in the context of Lao PDR's ongoing systemic transition to a market-oriented as well as regionally and globally integrated economy.

More specifically, the 5th Lao PDR NHDR aims to:

- Scrutinize the trends of development indicators, especially those related to human development (education, health, poverty and inequality) and their regional variations. Offer policy recommendations to address deficits and disparities in human development.

- Examine the three LDC graduation criteria (human assets, economic vulnerability and income). Identify the challenges that the country would face and the opportunities it would have on and after graduation from the LDC group, and hence suggest measures to enable the country to remain out of that group and move forward.
- Explore policy options and propose an action agenda in selected sectors (education, health, agriculture, manufacturing, service, governance, etc.) to help the country attain and sustain LDC graduation as well as promote human development.

Structure of the Report

Chapter 1 takes stock of Lao PDR's level of HD, in particular in the areas of education, health, nutrition and access to safe drinking water and sanitation. It also examines the nature of Lao PDR's growth during recent decades and highlights that its recent economic growth has not been inclusive. Besides deteriorating interpersonal inequality, disparities in incomes and dimensions of HD among regions and ethnic groups are evident. Progress in poverty reduction also does not correspond with improvements in HD in some cases. Regional disparities can be politically destabilizing, especially when they relate to resource disparities, e.g. resource-rich regions with low HD, and disparities overlapping with ethnicity. The chapter ends by drawing policy implications and argues that the commitments to HD by all stakeholders can act as a glue for the social cohesiveness that is needed for Lao PDR's continued progress along an inclusive and sustainable path.

Chapter 2 analyses the status of Lao PDR's LDC indicators, including trends and a baseline scenario for the near future. It then discusses the situations the country is likely to confront and the opportunities it is likely to encounter when it moves out of LDC status. More specifically, it examines the impact on the economy if the concessions that Lao PDR receives in terms of technical and economic assistance (e.g. grants and easy loans, preferential access to the markets of most OECD countries) are phased out or curtailed. The chapter also examines the opportunities and challenges that ASEAN Economic Integration (AEC) is likely to bring. It emphasizes the need for diversification, and improvement in productivity and human development to overcome the challenges arising from both LDC graduation and AEC integration.

Chapter 3 advances the discussion of the HDI in Chapter 1, in particular of education and health as components of the HAI with a view to proposing actionable approaches for promoting them. The chapter begins by presenting a synopsis of the current situation regarding health and education as seen through pertinent indicators of health, such as child mortality, maternal mortality, nutrition, and education at the pre-primary, primary and secondary levels, and the like. It then analyses the main demand- and supply-side factors restricting people from availing themselves of health and educational facilities and services. Finally, it advocates a rights-based approach for promoting health and education for Lao PDR as it seeks to graduate out of its LDC status through improving its HD.

Chapter 4 examines select components of the EVI. The areas explored are agriculture (its share and inherent instability), the Government's proposed modernization and industrialization programme, and natural disaster reduction and management. It argues that agricultural development, industrialization and disaster reduction strategies should be mainstreamed with Lao PDR's strategies to achieve global- and people-centred sustainable development goals. Human development is vitally instrumental and an aim in itself. The chapter ends with some proposed actions to complement the Government's programmes.

Chapter 5 concludes the report with a succinct discussion on the way forward. It discusses the policy options in light of Lao PDR's commitments to regional and global economic integration, the transition to a more market-oriented economy, and sustainable development goals (SDGs). It ends with an agenda for action for human development and smooth LDC graduation.

Appendix 0.1: List of Least Developed Countries

Country	Date of inclusion on the list	Country	Date of inclusion on the list
Afghanistan	1971	Madagascar	1991
Angola ^a	1994	Malawi	1971
Bangladesh	1975	Mali	1971
Benin	1971	Mauritania	1986
Bhutan	1971	Mozambique	1988
Burkina Faso	1971	Myanmar	1987
Burundi	1971	Nepal	1971
Cambodia	1991	Niger	1971
Central African Republic	1975	Rwanda	1971
Chad	1971	Sao Tome and Principe	1982
Comoros	1977	Senegal	2000
Democratic Republic of the Congo	1991	Sierra Leone	1982
Djibouti	1982	Solomon Islands	1991
Equatorial Guinea ^b	1982	Somalia	1971
Eritrea	1994	South Sudan	2012
Ethiopia	1971	Sudan	1971
Gambia	1975	Timor-Leste	2003
Guinea	1971	Togo	1982
Guinea-Bissau	1981	Tuvalu	1986
Haiti	1971	Uganda	1971
Kiribati	1986	United Republic of Tanzania	1971
Lao People's Democratic Republic	1971	Vanuatu ^c	1985
Lesotho	1971	Yemen	1971
Liberia	1990	Zambia	1991

Source: United Nations Committee for Development Policy,
http://www.un.org/en/development/desa/policy/cdp/lcd/lcd_list.pdf

Notes:

- a. General Assembly resolution A/RES/70/253, adopted on 12 February 2016, decided that Angola will graduate five years after the adoption of the resolution, i.e. on 12 February 2021.
- b. General Assembly resolution A/RES/68/18, adopted on 4 December 2013, decided that Equatorial Guinea will graduate three and a half years after the adoption of the resolution, i.e. on 4 June 2017.
- c. General Assembly resolution A/RES/68/18, adopted on 4 December 2013, decided that Vanuatu will graduate four years after the adoption of the resolution, i.e. on 4 December 2017. General Assembly resolution A/RES/70/78, adopted on 9 December 2015, decided to extend the preparatory period before graduation for Vanuatu by three years, until 4 December 2020, due to the unique disruption caused to the economic and social progress of Vanuatu by Cyclone Pam.

Chapter 1

The State of Human Development

Lao PDR has made impressive progress in human development and poverty reduction, powered by rapid growth in its resource sector. However, its global ranking has declined, as progress in poverty reduction and human development has not been commensurate with growth. Furthermore, Lao PDR's achievements are uneven both across its regions and among its ethnic groups. There has been an increase in inequality and spatial disparities, which, together with high vulnerability, has slowed the pace of its progress. Lao PDR needs broad-based inclusive growth and heightened commitment to human development. The Government may wish to initiate national dialogue for a social compact around some achievable HD targets in provinces and among ethnic communities.

There is a family of measures, evolved over time, to assess the state of human well-being. The three principal ones are the Human Development Index (HDI), Gender Development Index (GDI) and Gender Inequality Index (GII); in addition, there is the inequality-adjusted HDI. Each of these is a composite of 3-4 indicators. Appendix 1.1 presents the methods of calculation of these indicators.⁶

Human Development Progress Report

Human Development Index

There has been significant progress made on the HDI, with the country's HDI value rising from 0.340 in 1980 to 0.575 in 2014. However, Lao PDR's relative position in the world has suffered. On the global HDI ladder, Lao PDR ranked 141st of 187 countries in 2014, down from 139th in 2013 and 138th in 2012, which implies that other countries are doing better. Lao PDR's HDI value, when discounted for inequality, falls to 0.428 (in 2014), suggesting that there is avoidable inequality.

Among the nine ASEAN developing countries, Lao PDR ranks 7th (Table 1.1).⁷ Thailand, ranked second, and Vietnam, ranked fifth, are among the most important regional trading and investment partners of Lao PDR, and Lao PDR's global ranking is substantially lower than these two. This is a concern when seen from the perspective of both LDC graduation and full integration into the ASEAN Economic Community (AEC), since close economic partnerships work best only among equals.⁸

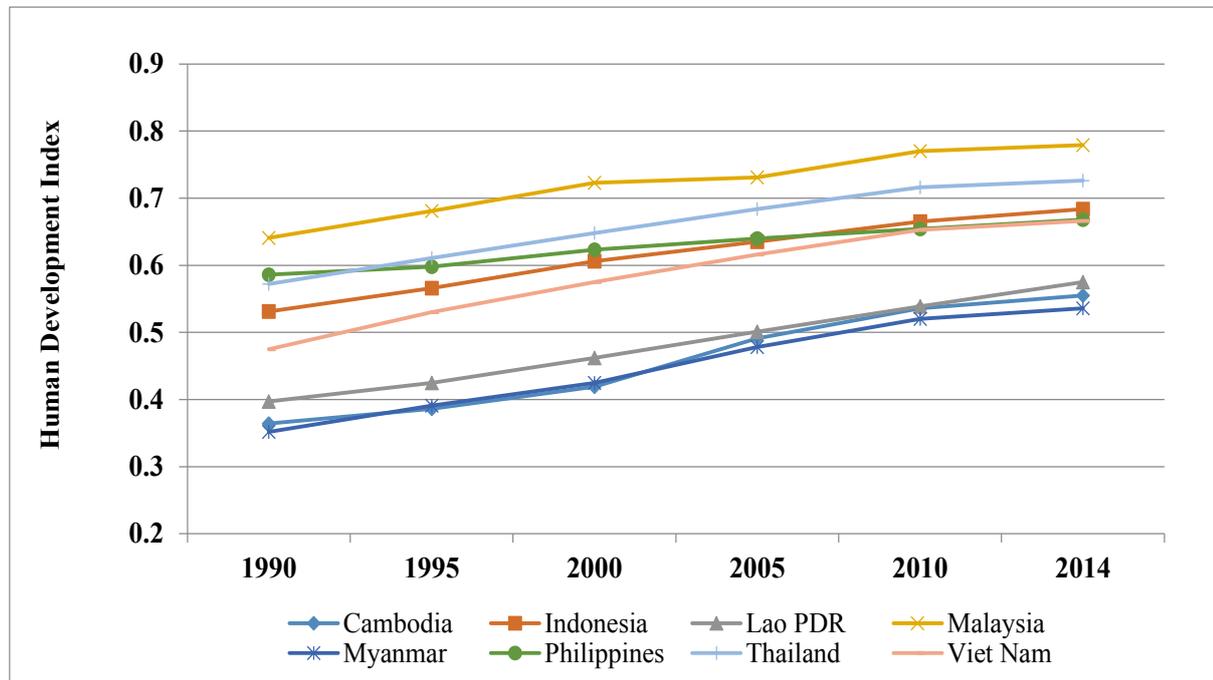
Table 1.1: HDI of ASEAN countries, 2014

Country	HDI (2014)	ASEAN ranking	Global ranking (2014)
Cambodia	0.555	8	143
Indonesia	0.684	3	110
Lao PDR	0.575	7	141
Malaysia	0.779	1	62
Myanmar	0.536	9	148
Philippines	0.668	4	115
Thailand	0.726	2	93
Vietnam	0.662	5	116
Timor-Leste ^a	0.595	6	133

Source: UNDP (2015).

Note: a. Timor-Leste is not a full member of ASEAN. It officially applied for membership on 4 March 2011 and hopes to become a full member in 2017.

Figure 1.1: Trends in HDI value, eight ASEAN countries



Source: UNDP (2015).

Figure 1.1 presents eight ASEAN countries' HDI values between 1980 and 2014. As can be seen, Malaysia maintained its lead over this period. But the Philippines, which was on a par with Malaysia with the top index value in 1980, lost this position to Thailand, and is now below Indonesia and at about

a similar level with Vietnam. Despite making some notable progress, Myanmar remains at the bottom of the group, but not far below Cambodia. Cambodia and Thailand made rapid gains. Cambodia, which was at the bottom of the group, nearly caught up with Lao PDR, but it seems it has been losing steam recently. Starting from a low base, Lao PDR's HDI accelerated, but its pace has been slowing since 2005. Lao PDR needs to shift its gear to fast-track progress on the HDI in order to achieve its smooth graduation objective and AEC integration.

Gender Inequality Index (GII) and Gender Development Index (GDI)

The GII measures the percentage loss of human development due to gender-based shortcomings in the included dimensions of HD. The values of GII range between 0 and 1, with 0 indicating no inequality, i.e. that women fare equally in comparison to men, and 1 indicating full inequality, i.e. that women fare very poorly in comparison with men. The GDI is the ratio of the HDI calculated separately for men and women.⁹ Table 1.2 presents the GII and GDI values for the nine ASEAN developing countries.

Table 1.2: Gender-related indices

Country	Gender Inequality Index (GII)			Gender Development Index (GDI)	
	GII	Global Rank	ASEAN Rank	GDI	Global Rank (2013)
Cambodia	0.505	105	7	0.909	105
Indonesia	0.500	103	6	0.923	98
Lao PDR	0.534	118	8	0.897	112
Malaysia	0.21	39	1	0.935	91
Myanmar	0.43	83	5	n.a.	n.a.
Philippines	0.406	78	4	0.989	17
Thailand	0.364	70	3	0.990	14
Vietnam	0.322	58	2	n.a.	n.a.
Timor-Leste	0.875	122	9	n.a.	n.a.

Source: UNDP (2015).

There are three distinct observations to note here. First, Lao PDR's rank on the HDI, GII and GDI differs markedly; Lao PDR's global ranks are 141 (HDI), 118 (GII) and 112 (GDI) – all towards the bottom compared with its developing ASEAN partners. Second, Thailand and the Philippines have done much better on the GDI, with significantly higher global ranks there than they have on the HDI or GII. The GII value could be low (meaning better achievement) even when a country lags behind in overall HDI (e.g. Myanmar). In other words, Myanmar's HDI would have been worse in the absence of its better gender equality. Third, Thailand has a near-equal gender development value with a GDI of 0.990 and Lao PDR lags behind most in gender development with a GDI of 0.897 among ASEAN developing countries.

Seen from an HD perspective, people are the real wealth of a nation. Since women comprise half of all humanity, their development is *synonymous* with HD. Lao PDR needs to cover a lot of ground to empower women. This, in turn, should help not only to develop HD but also to achieve overall inclusive economic growth.

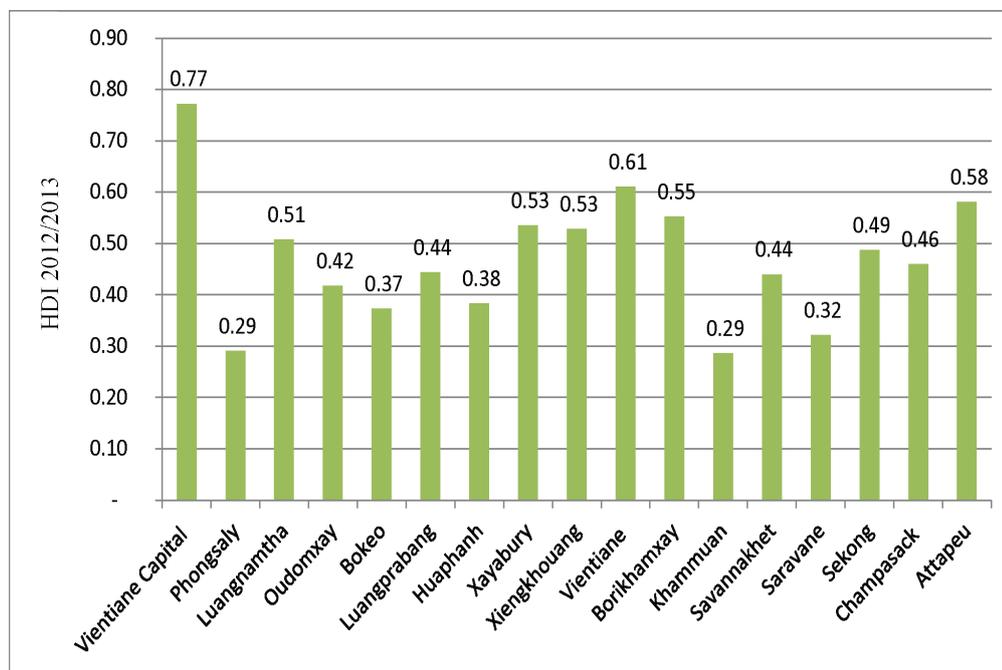
Provincial Human Development Progress

Province-level HDI values are calculated for two periods, 2001-2003 and 2011-2013, in order to: (i) gauge the extent of inter-provincial differences in HD; and (ii) see the relative progress made by provinces in HD. The method for computing this index is the old one, used until about the middle of the last decade. Given the data limitations at the province level, two deviations from the overall methodology had to be made. First, since GDP/GNI computations are not made at the province level in Lao PDR, the mean consumption levels obtained from the Lao Expenditure and Consumption Survey of 2012/2013 (LECS-5) are substituted for them. Second, longevity data are available only from the census, but the census data for 2015 are not yet available. Hence the reverse of the infant mortality rate (IMR) = $[1-IMR]$, from the 2005 census, and from the 2011/2012 Lao Social Indicator Survey (LSIS), are used instead.

Inter-Provincial Disparities

The province-level indices computed for 2012/2013 (Figure 1.2), suggest that the HDI value is highest in Vientiane Capital and lowest in Khammuane. In general, more market-exposed and occupationally diverse provinces have higher HDI values. At the bottom of the list are the provinces of Phongsaly (North), Saravane (South) and Khammuane (Centre). The HDI value of Vientiane Capital (top on the list) is 2.7 times higher than the HDI value of Khammuane. The difference between the average HDI value of the top three and the bottom three provinces is 2.19. The coefficient of variation (COV) is about 26%, which, in statistical terms, is considered high.¹⁰

Figure 1.2: Province-specific HDI values, 2011-2013



Sources: Calculated with data obtained from LECS-5 2012/2013, LSIS 2011/2012, and Ministry of Education databases.

Provincial HDI progress between 2002/2003 and 2012/2013

In its generic formulation, HDI value is a cross-sectional measure and comparing it in a temporal context is not permissible unless constant goalposts are defined, as is done in international comparisons. Such liberties are not possible in inter-provincial analysis due to the paucity of data at this level. However, for each year, the provinces could be ranked by their HDI value and the relative placing of each province could be contrasted with its earlier placing. The ranks are given for 2002/2003 and 2012/2013 in Table 1.3.

Table 1.3: HDI rankings of provinces, 2002/2003 and 2012/2013

Province	2003		2013		Change in ranking
	HDI	Ranking	HDI	Ranking	
(1)	(2)	(3)	(4)	(5)	(6)
Vientiane Capital	0.79	1	0.77	1	Same
Phongsaly	0.32	14	0.29	16	Lost 2 places
Luangnamtha	0.30	15	0.51	7	Gained 8 places
Oudomxay	0.32	12	0.42	12	Same
Bokeo	0.45	7	0.37	14	Lost 7 places
Luangprabang	0.44	9	0.44	10	Lost 1 place
Huaphanh	0.45	8	0.38	13	Lost 5 places
Xayabury	0.57	3	0.53	5	Lost 2 places
Xiengkhuang	0.48	6	0.53	6	Same
Vientiane Province	0.62	2	0.61	2	Same
Borikhamxay	0.54	4	0.55	4	Same
Khammuane	0.34	11	0.29	17	Lost 6 places
Savannakhet	0.43	10	0.44	11	Lost 1 place
Saravane	0.26	16	0.32	15	Gained 1 place
Sekong	0.24	17	0.49	8	Gained 9 places
Champasack	0.49	5	0.46	9	Lost 4 places
Attapeu	0.32	13	0.58	3	Gained 10 places

Note: Columns (2) and (4) are not comparable since the rank is relative to other provinces in the same year and not across years.

As can be seen, the relative HD ranking of provinces has changed noticeably through the decade, as summarized below:

1. Vientiane Capital, Vientiane Province, Oudomxay, Xiengkhuang and Borikhamxay have retained their ranks.
2. Attapeu has improved dramatically, from rank 13 to rank 3, as has Sekong, from rank 17 to rank 8. This requires explanation. Is it the large Chinese investment that has made the difference? If so, why did Savannakhet not improve in the last decade with so much foreign investment there?
3. Champasack, a neighbour to both Sekong and Attapeu, has lost ground, dropping from rank 5 to rank 9. Why could it not benefit from the spillovers from its two star performer neighbours?

4. Bokeo, Huaphanh and Khammuane have dropped more than five ranks. What could have contributed to their relative declines?

More detailed studies are required to answer these questions. Answers to these questions will have important implications for designing policies and implementation strategies to promote HD. Empowering the people is the starting point.

Progress in Empowering the People: Education, Health and Nutrition

Education and skills, along with good health, raise people's employability, which in turn opens the doors to greater incomes, choices and freedom. The relationship between better quality employment (and earnings) and knowledge, and health has been established empirically for over four decades.¹¹ In an increasingly knowledge-driven world, homemakers can also contribute to better incomes and quality of life for themselves and their offspring through adopting more rational and eco-friendly lifestyles. Education (and skills) forms an integral component of human development and is central to achieving a higher HAI value.

Literacy and Basic Schooling

Between 2002/2003 and 2012/2013, the literacy rate in Lao PDR rose from about 75% to 83%, in the population aged 6 years and more, with female literacy lagging behind male literacy, although it is catching up. Progress has been slow, but then people above a certain age (say, 25-30 years) who are illiterate are not expected to acquire literacy owing to their vocations, responsibilities and orientation. An additional (retarding) factor is that there are relatively few avenues for adults to follow to acquire literacy. The rate is pulled back further because of rising longevity. Progress in the younger age groups (say, 6-24 years) is much better, a point further touched upon in Chapter 3.

There is a higher literacy rate in the Central provinces, followed by the Southern and then the Northern provinces. This pattern is consistent with regional economic development, suggesting that incomes and educational attainments are linked. There are large inter-provincial variations in literacy, however; the coefficient of variation (COV) is 14%.¹¹

The average number of years of education is in the range of 4-5 years, with the female average being a little lower. This is partly due to cultural factors—certain cultures in this multi-ethnic society believe that girls should be in traditional roles, for which roles they feel formal school education is not essential. Logistical factors are also responsible; e.g. many schools do not have toilet facilities for small girls.¹³

With a net enrolment rate in primary schools of about 97% in 2014 and little gender difference, the MDG target is nearly met. The inter-provincial variation, too, is small, with a COV value of some 3%. The provinces of Luangnamtha, Huaphanh and Savannakhet, with a net enrolment rate of less than 95%, are seeming outliers.¹⁴

Nutrition and Health

A healthy human being is a happier person, a diligent learner and a productive and willing worker, able to perform daily functions in life better. Good health is also a prerequisite for a person to play a larger societal role. Health and nutrition are integral components of HD.

The food poor are by definition undernourished.¹⁵ In 2012/2013, 20.1% of people in Lao PDR suffered from food poverty: 23.3% in rural areas and 12.1% in urban areas (Table 1.4). The food poor are concentrated in rural areas and highly represented in the rural South and North despite the fact that the rural poor grow food.

Table 1.4: Proportion of the population designated food poor, 2012/2013

Location	Food poor (%)
Vientiane Rural	12.5
Vientiane Urban	10.5
North Rural	25.4
North Urban	7.9
Central Rural	18.5
Central Urban	14.6
South Rural	29.3
South Urban	16.3
Rural Lao PDR	23.3
Urban Lao PDR	12.1
Lao PDR	20.1

Source: Pimhidzai et al. (2014).

Data from LSIS 2011/2012 suggest that, of children aged 0-5 years, 26.6% of boys and 26.4% of girls were underweight, 45.7% of boys and 42.6% of girls were stunted, and 6.4% of boys and 5.4% of girls were wasted.¹⁶ According to the data, it is clear that there is no gender bias. However, there are more underweight, stunted and wasted babies among ethno-linguistic groups other than the Lao-Tai, in rural areas, in families with less-educated mothers, and/or in lower income groups. These (multiple) gaps suggest the multidimensional nature of malnutrition. The MDG targets (of 2015) remain unmet, as per these data.

Finally, infant, child and maternal mortality—key indicators of health—have shown some progress though many of these are yet some distance away from the targets set in the MDGs (see Chapter 3).

Water and Sanitation

Safe drinking water improves nutrition and reduces mortality. If there are no or few contaminants in water, the food intake is retained in the body, improving nutrition and human growth. Lao PDR defines safe water as that which is fetched from piped sources, tube well/bore wells, treated open wells, protected springs and bottled sources; other sources are considered unsafe.

With regard to sanitation, the authorities define an improved type of sanitation facility as one that hygienically separates human waste from human contact. Inadequate disposal of human wastes is

associated with a range of diseases, including diarrhoea and polio.

Some 70% of households in Lao PDR had access to clean (or safe) water for drinking, washing, etc., while some 59% households had access to safe sanitation, in 2011/2012. Table 1.5 provides these figures by broad regions. This table suggests that, on aggregate, urban areas are better endowed than rural areas. The North is better endowed than the rest with safe water, while the Central regions are better endowed with sanitation. The South lags behind significantly in sanitation compared with the other two regions and the gap is very large. These patterns might possibly reflect the impact of some externally funded water supply and sanitation projects implemented in the Central and Northern regions. These large regional disparities (the COV of access to safe water is 18%, while that for safe sanitation is 38%, across provinces) are well above the 10% (notionally accepted) ceiling. These gaps are detrimental to HD, human well-being and moving out of LDC status.

Table 1.5: Percentage of households with access to safe water and safe sanitation

Region	Households with access to safe water (%)	Households with access to safe sanitation (%)
North	79.4	61.3
Central	64.8	67.8
South	67.1	34.8
All urban	87.6	91.3
All rural	63.9	48.2
Lao PDR	69.9	59.2

Source: LSIS 2011/2012.

In sum, progress in empowering the people has been notable, but uneven, and there are still substantial deficits in educational attainment, health conditions, nutritional levels and access to safe drinking water and sanitation. There are also large disparities across regions, between males and females and among ethnic groups. Policymakers need to know how these horizontal disparities in human development and empowerment relate to poverty and inequality.

Poverty and Inequality: Temporal and Spatial Patterns¹⁷

Poverty

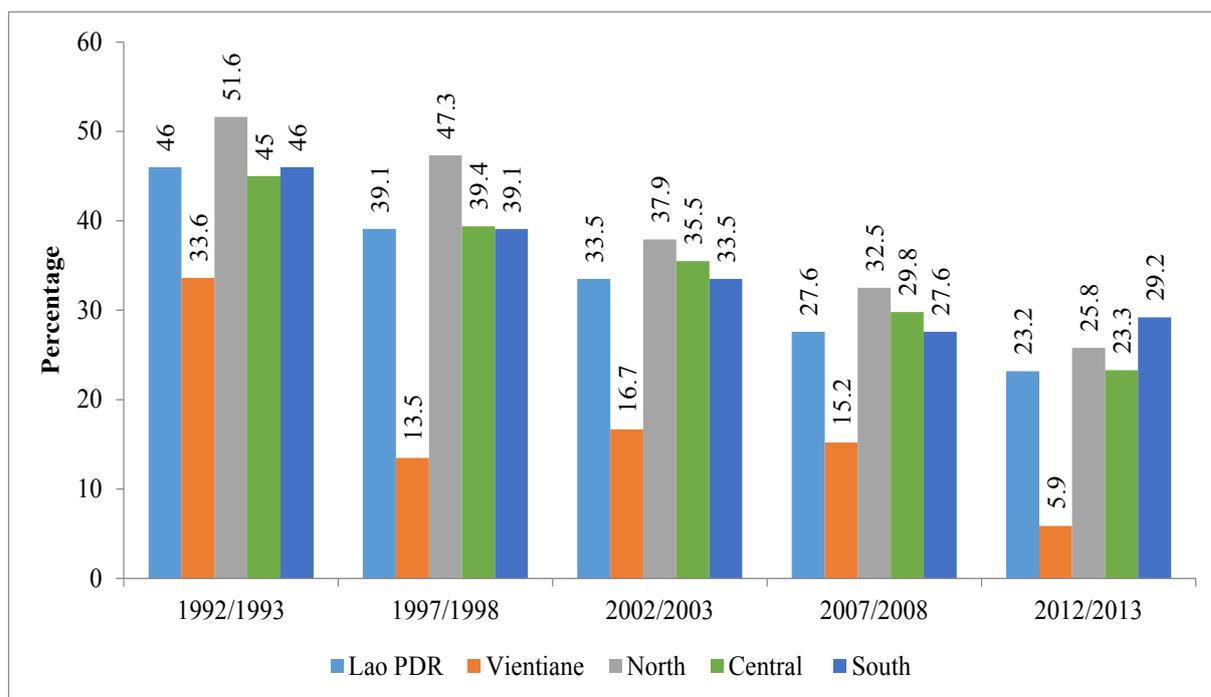
Income or consumption measures of poverty gauge the state of absolute deprivation: lack of access to food and basic necessities that people might experience (perennially or seasonally). People are poor because they are unable to earn enough to provide for minimum requirements in the absence of entitlements, which is reflected in joblessness, underemployment, low-paying jobs, inequality, social exclusion and similar phenomena.

The headcount measure of poverty, as seen in Figure 1.3, suggests that, at the national level, the poverty rate has fallen by about half between the early 1990s and 2012/2013, just about meeting the MDG target (of 2015). Increases in endowments, primarily human capital and access to land, coupled with non-farm job creation, were major drivers of poverty reduction. Needless to say, Lao PDR's poverty reduction received a significant boost from the boom in its resource sector driven by a rise in demand in emerging

economies, especially China.

But the aggregate improvement in poverty reduction hides large differences between regions. The poverty rate in the Southern region is 6 percentage points higher than the national rate. The Northern region also has a higher poverty rate.

Figure 1.3: Persons below the poverty line 1993-2013, by broad region (%)¹⁸



Source: Pimhidzai et al. (2014); UNDP (2009).

The pace of poverty reduction in the regions has also not been even or uniform. Vientiane Municipality experienced a steep reduction between 1992/1993 and 1997/1998, but thereafter there was a rise in the poverty rate for 10 years, until it fell again in 2012/2013. One possible reason for this fluctuation is related to inward migration of the rural poor through the period up to 2007/2008, i.e. those who could not find decent jobs immediately. But after a long stay in the city, these migrants began to earn better.

The Northern provinces, which had the largest proportion of the poor between 1992-1993 and 2007-2008, experienced a sharp reduction in poverty rates in 2012-2013. While the Central provinces had maintained a steady reduction in poverty rates, they changed ranks briefly in 1997-1998 to become the second poorest, but then regained their position as the third poorest thereafter. The Southern region maintained a secular trend in poverty reduction until 2007-2008, but the poverty rate *increased* there in 2012-2013. This is a cause of concern.

The disaggregated figures (Table 1.6) reveal more stark regional disparities in the incidence of poverty and progress in poverty reduction. For example, half of the population in Saravane and over 40% (2 of every 5 people) in Bokeo and Sekong live in poverty, in contrast to just 6% (1 of 17) in the capital city. Poverty is markedly higher in rural areas, at 28.6%, compared with urban areas, at 10%. Alarmingly, this gap increased over the past five years, when poverty declined faster in urban areas. Rural areas now account for 87% of the poor, compared with 80% previously. One reason for this rural–urban variation

is the low productivity of agriculture, the sector in which most of the poor work. Labour productivity in the farm sector is far lower than that in the non-farm sectors, and it has not been growing.

Table 1.6: Poverty rate by province, 2002/2003 to 2012/2013

Province	Poor(%) 2002/2003	Poor(%) 2007/2008	Poor(%) 2012/2013
Vientiane Municipality	16.7	15.2	5.9
Phongsaly	50.8	46.0	12.3
Oudomxay	45.1	33.7	30.1
Attapeu	44.0	24.6	8.9
Borikhamxay	28.7	21.5	16.4
Savannakhet	43.1	28.5	27.9
Luangprabang	39.5	27.2	25.5
Huaphanh	51.5	50.5	39.2
Bokeo	21.1	32.6	44.4
Sekong	41.8	51.8	42.7
Champasack	18.4	10.0	19.9
Luangnamtha	22.8	30.5	16.1
Xayabury	25.0	15.7	15.4
Xiengkhuang	41.6	42.0	31.9
Vientiane Province	19.0	28.0	12.0
Khammuane	33.7	31.4	26.4
Saravane	54.3	36.3	49.8
Lao PDR	33.5	27.6	23.2

Source: Pimhidzai et al. (2014).

The provinces can be grouped into three categories based on their progress in poverty reduction:

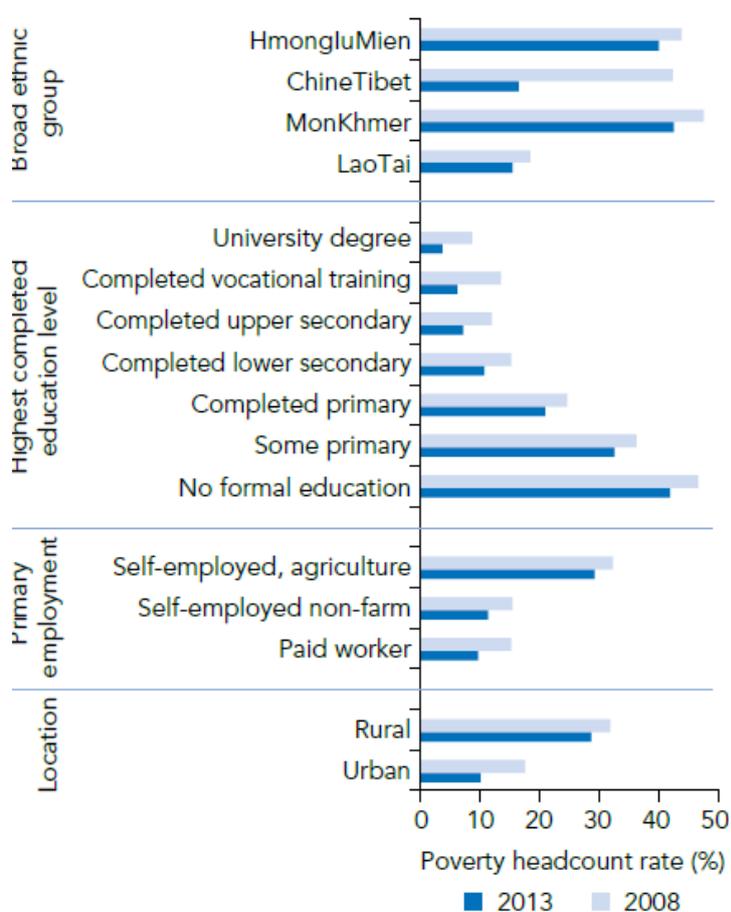
1. Eight provinces (shaded in light blue, Table 1.5) where the proportions of the poor **fell at a rate more than the national average (of about 10 percentage points)** between 2002/2003 and 2012/2013. Vientiane Municipality, of course, has very low poverty owing to urbanization and levels of social and economic development; Phongsaly, Oudomxay and Attapeu have received significant investments from China for plantations; Borikhamxay is a mining province; Luangprabang is a tourist attraction; Savannakhet is an industrial province.
2. Three provinces (shaded brown) where the proportions of the poor **increased between 2002/2003 and 2012/2013**. The 4th NHDR (2009) had identified three reasons: reduction in swidden cultivation with no viable substitutes; reduction in opium cultivation with no viable substitutes; and plantations taking away land from villagers. There is a need for verification of whether the same reasons continue to hold.
3. Six provinces (unshaded) where the proportions of the poor **reduced at a rate less than 10 percentage points**

The spatial distribution further reveals that, although poverty in Lao PDR is geographically concentrated, it is not necessarily in provinces with the highest poverty rates. The concentration is also influenced by the size of the population. For example, Savannakhet accounts for 17% of all poor individuals despite its moderate poverty rate by virtue of its large population. On the other hand, Bokeo has a poverty rate of 44.4%, the second highest in Lao PDR, but it accounts for only 5% of the poor because of its small population.

Agro-climatic variables and market access should explain the variation in village-level rural poverty. That is, poverty is expected to be higher in villages with a rough terrain and higher seasonality in rainfall, and which are located farther from towns and major rivers and markets. Regression analysis found that terrain roughness is associated with higher poverty throughout Lao PDR. But the relationship between agro-climatic variables and poverty varies significantly from one area of the country to another.¹⁹

Another feature of poverty in Lao PDR is large disparities in poverty incidence among various ethnic groups as well as variations by socio-economic status (Figure 1.4). Poverty is largely concentrated among minority (non-Lao-Tai) ethnic groups, the less educated and those who primarily depend on family farming or are unemployed. However, the Sino-Tibetan ethnic group has done better in recent years; the poverty rate in this group declined substantially, to reach a level close to the Lao-Tai group.

Figure 1.4: Poverty rate by socio-economic characteristics (2008, 2013)



Source: Pimhidzai et al. (2014).

A final point to note is the fall in the poverty gap,²⁰ meaning *how far* below the poverty line the poor dwell. It has steadily reduced from 8 to 5.5 through the period 2003-2013, more in urban areas (from 4.1 to 2.3) than in rural areas (from 9.2 to 6.8). However, overall, the people of Lao PDR remain extremely vulnerable as the majority live just above the poverty line. For example, the per capita consumption of 60% of those who moved out of poverty between 2007/8 and 2012/13 was no more than 50% above the poverty line.²¹ Two thirds of the population in Lao PDR lives on less than \$2 (PPP) per day, compared with the poorest 10% in Thailand and Vietnam.

They risk falling into poverty due to small shocks in their livelihoods. Poverty could have declined further had a large number of vulnerable households not fallen back into poverty. About half of the poor in 2012/2013 were non-poor in 2007/2008 and more than two thirds of them had been non-poor at some point during the previous 10 years. This has significance for Lao PDR's aspiration to graduate out of its LDC status. Crop failures and health shocks are main drivers of household vulnerability.²²

Inequality

There has been global concern about rising inequalities over recent decades. With the major writings of Thomas Piketty, Anthony B. Atkinson and Joseph Stiglitz, this debate has come to the centre stage of contemporary literature and public policy in developed and developing countries alike.²³ In countries with natural resources there is another debate on the so-called "resource curse" that suggests that regional disparities in resource endowments, when they overlap either regional or ethnic human development deficits, can lead to violent social conflict.

Lao PDR has experienced a rise in inequality in recent years. The Gini coefficient of consumption inequality, as calculated from LECS databases, increased from 32.46% in 2002/2003 to 35.04% in 2007/2008 and further to 36.17% in 2012/2013. Inequalities across regions and socio-economic groups are also observed in other indicators. For example, the Gini coefficient of inequality in educational attainment (years of education in a household, per capita) was 0.36 in 2012/2013. Minorities constitute two thirds of people without formal education. Net secondary enrolment in Lao PDR as a whole is almost 50%, but it is as low as 31% in Phongsay and Saravane, and as high as 82% in Vientiane Capital.

In 2010/2011, some 15% of the villages had no access to all-weather roads and about 30% had no electricity connection. Only 43% of households below the poverty line had access to improved toilets and 59% had access to electricity, compared with 85% and 91% of households whose consumption is more than double the poverty line.

Gender gaps are also observable within groups. Less than 60% of women in poor households can read and write, compared with over 80% of males in poor households.²⁴

Inequality is detrimental to human development, and thwarts efforts to graduate the country out of LDC status. The inequality-adjusted HDI value was some 24.4% lower than the unadjusted HDI value in 2011-2013.

In sum, as in human development, Lao PDR has made significant progress in poverty reduction. However, the achievements have not been even and are tainted by a rise in disparities, both vertical and horizontal. Poverty reduction and human development would have been much faster had there been no deterioration in inequalities in various dimensions. If inequality had hypothetically remained at its

1992/93 level, poverty incidence would have declined from 46% to 17%. That is, if inequality had not changed, national poverty incidence would have fallen 28% more rapidly than it actually did.²⁵ The pace has been further impaired by high vulnerability, which saw a significant number of previously non-poor households falling back into poverty. The rate of poverty reduction and human development has also been slow relative to the recent high rate of economic growth in Lao PDR. One of the main reasons for worsening inequality is the lack of broad-based growth and failure to generate productive employment in sufficient numbers to pull the growing labour force up from low productivity agriculture.

Economic Growth: Sources and Patterns

The Lao economy has grown at a robust (compound annual) rate of 6-8% in the last 10-15 years. Even in 2009, when the global economy dipped, which severely affected the ASEAN region including Cambodia and Vietnam, the Lao economy grew at 7.5%.

The GDP growth has stemmed from agriculture and natural resources. The total land area under cultivation grew at about 4.3% per annum (compound), resulting in an increase of the cultivated area from 0.96 million hectares (ha) in 1998/1999 to 1.6 million ha in 2010/2011. This expansion had become a major growth engine for agriculture, and is likely to be so for at least 5-10 more years.²⁶

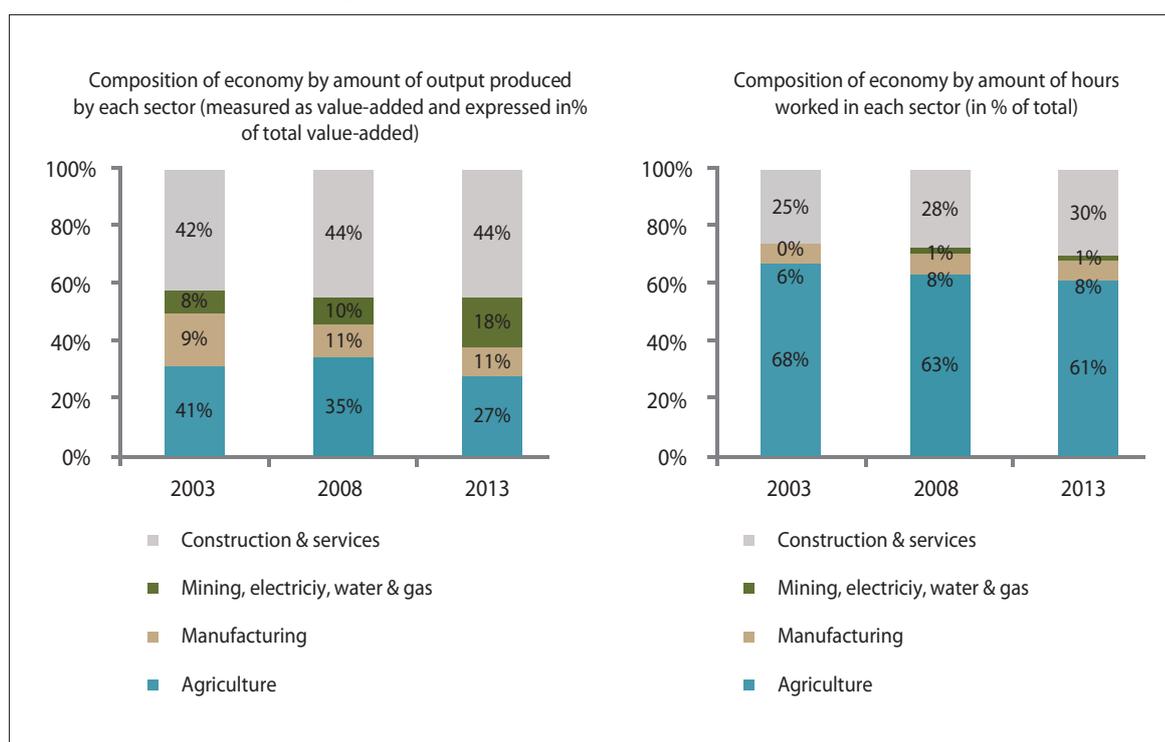
Next, the share of mining and electricity in GDP has more than doubled through the period 2003-2013 (Figure 1.5). Since both mining and agricultural products had enjoyed steady prices in the recent past, GDP has accordingly grown steadily.

The share of agriculture in GDP declined from 41% to 27% through the decade 2003-2013; however, the share of employment in this sector declined from 68% to 61% during the same period.²⁷ A drop of 13 percentage points in the output share compared with a drop of only 7 percentage points in the employment share indicates low productivity in agriculture.

But in absolute terms, there was an increase in the number of workers in agriculture, as the labour force has also been rising at about 2.5% annually while non-agricultural jobs have lagged behind. The elasticity of labour engagement with respect to production in agriculture was 0.99; in manufacturing it was 0.04 and in services it was 0.59 (Table 1.7). Employment elasticity with respect to output is an inverse of labour productivity. The high employment elasticity in agriculture confirms the sector's low productivity. The exceptionally low employment elasticity in manufacturing is an indication of the sector's high capital-intensive nature. Thus, the factor intensity of Lao PDR's production structure is lopsided, in addition to there being limited diversification. It is not consistent with its growing labour force.

The bulk of the workers outside the farms, some 0.92 million, were engaged in the services sector, while the manufacturing sector engaged a little fewer than a quarter of a million workers in 2012/2013.²⁸

Figure 1.5: Sectoral composition of GDP and workforce, 2003-2013



Source: Pimhidzai et al. (2014).

Table 1.7: Elasticity values of labour use to output, by sector, 2007/2008 to 2012/2013

Sector	Elasticity
Agriculture and Related Activities	0.99
Manufacturing	0.04
Construction and Services	0.59

Sources: Calculated from LECS-3 and LECS-5 data (for workers) and GDP statistical databases (for production).

Note: Data on the Mining Sector have not been presented as the sector engages fewer than 20,000 workers.

Table 1.8: Labour productivity by sector, 2007/2008 and 2012/2013

Sector	FY 2007/2008	FY 2012/2013
Agriculture and Related Activities	4.35	4.35
Manufacturing	10.52	15.93
Construction and Services	15.84	18.92

Sources: Calculated from LECS databases (for workers) and GDP statistical databases (for production).

Table 1.8 presents the labour productivity figures in Lao PDR by broad sector. As indicated earlier, the agricultural sector had the lowest labour productivity in both periods, and yet it absorbed the maximum number of workers. Data (from LECS, not presented here) suggest that the yield rates of most crops seem to have remained unchanged between 2007/2008 and 2012/2013. Figures on land area cultivated, presented earlier, suggest that it was an expansion in the area that had permitted the labour productivity

to be maintained.²⁹

At the same time, the manufacturing sector has not been absorbing workers (the sector's elasticity of labour use with respect to production is near zero). But the sector's labour productivity has risen dramatically, by some 51% during 2007/2008 and 2012/2013 (or 8.7% annually, compound).

The services sector shows a healthy employment elasticity of 0.59, while at the same time its labour productivity has risen by some 19% over the five-year period (or 3.6% annually, compound). The relatively small rise in labour productivity in the services sector compared with the manufacturing sector is widely believed to be due to the proliferation of low-productivity services, which employ many people, especially young people, who want to escape from the agricultural sector, having had some exposure to education and to the world beyond their agrarian environment.³⁰ However, they do not find high-paying jobs for reasons of both supply and demand:

- They do not possess the appropriate skills to meet the job requirements in the high-paying job areas;
- The composition of growth is such that there are few, if any, jobs created in the high-growth sectors. Some 57% of new investments are made in the mining and power sectors, which have so far engaged much less than 1% of the workforce.³¹

Growth based on extractive industries (spearheaded by foreign capital and technology) does not create jobs or advance human development to the extent desirable and potentially achievable.³² Consequently, workers and families stay trapped in low productivity subsistence agriculture, experiencing degrees of underemployment. This incomplete or distorted structural transformation is the fundamental reason for less than desirable welfare levels in the country.³³ It results in low human development.

In sum, while economic growth in Lao PDR has been impressive, it has largely originated from the mining and power sectors. In other words, the growth has not been broad based and has not produced sufficient levels of productive employment. Workers and families in large numbers are still engaged in low-productivity agriculture and its related activities, resulting in an incomplete structural transformation. This lack of broad-based growth also reduced the pace of poverty reduction and human development.

Conclusion: Policy Implications

Lao PDR made substantial progress in human development and poverty reduction, powered by its recent resource-sector-driven, robust growth. However, it still lags behind and has witnessed rising disparities in income and human development across its regions and among ethnic groups. Its economic growth has not been broad based and inclusive.

Despite recording sustained high growth for more than a decade, Lao PDR's economy is still inadequately diversified, its production structure has lopsided factor intensity, and it suffers from slow productivity growth. All this contributed to slower progress in poverty reduction and human development improvements. These factors also contributed to rising disparities and increased vulnerability, which, in turn, further impaired the pace of progress in poverty reduction and human development, creating a vicious circle.

Commitments to human development by all stakeholders are needed to break this vicious circle. All

successful developing countries trod a powerful historical pathway of structural transformation, and Lao PDR must accelerate its structural transformation given its aspiration to graduate smoothly out of LDC status and its ongoing AEC integration. Successful structural transformation involves four main features: a falling share of agriculture in economic output and employment, a rising share of urban economic activity in industry and modern services, migration of rural workers to urban settings, and a demographic transition in birth and death rates that always leads to a spurt in population, generating the potential for a “demographic dividend”.³⁴

However, structural transformation produces winners and losers, as reflected in rising inequality and disparities, and the experience of Lao PDR is not entirely an exception. But disparities in an ethnically diverse society such as Lao PDR poses an additional challenge.

Successful countries had diverse approaches to coping with the political pressures generated along the way of structural transformation. Resource wealth can be an advantage for Lao PDR if it is used for productive purposes and building an inclusive society. Lao PDR can use its resource wealth to improve access to and the quality of public services, create opportunities for ordinary citizens to share and participate in the growth process, invest in a universal social protection floor and build resilience to protect the gains made from progress and reduce exposure to shocks.

Human development can act as a glue for the social cohesiveness that is needed for an ethnically and geographically diverse country such as Lao PDR, especially during the process of structural transformation. The Government may wish to initiate national dialogue for a social compact around some achievable human development targets in provinces and among ethnic communities.

Appendix 1.1: Computing HD Indices

Human Development Indices as Computed for International Comparisons

Human Development Index: The HDI is a composite representation of the state of human development in a country or region. In theory, HD covers a vast amount of ground and thus it might be difficult to capture all of its dimensions in a single index. For brevity, therefore, a composite of the following variables constitutes the HDI:

- (a) Per capita household income (measured in purchasing power parity (PPP) terms for international comparison);
- (b) A linear (weighted) combination of literacy rate and net enrolment rate;
- (c) Life expectancy.

$$\text{Individual index} = \frac{[(\text{actual value of the variable}) - (\text{minimum value of the variable})]}{[(\text{maximum value of the variable}) - (\text{minimum value of the variable})]}$$

Indices for each of the above are separately computed. They are then added together and divided by three, to form the HDI. Since each of the individual three indices is a unit-less number, linear addition is permissible.

An index for a single variable is calculated from cross-sectional data pertaining to either countries or regions/provinces within a country:

Computing Human Development Indices for provinces in Lao PDR

For province-level calculation of HDI value, there are three components:

- (a) Mean per capita household consumption for a province;
- (b) Literacy rate and net enrolment rate;
- (c) Life expectancy.

Note: For temporal comparisons, HDI value is computed based on (a), (b) and (c) above. This is as per the old HDI formula and not the one that is currently used. This is because earlier data on indicators such as mean years of schooling, among others, are not available.

Data

Provincial GDP: The per capita household consumption substitutes for income, since provincial GDP is not available. This has been multiplied by 1-Gini of land inequality to account for the existing inequality in each province. Data sources for provincial consumption: LECS-3 and LECS-5.

Literacy rate: Data for population 15 years of age and above obtained from LECS-3 and LECS-5.

Net enrolment rate: Net primary level enrolment rates. Data source: Ministry of Education (2003 and 2013).

Infant mortality rate (to replace longevity): Data sources: Population Census of 2005 and LSIS 2012.

Goalposts

Maximum income is 25% higher than that in the highest income province and minimum income is 25% lower than that in the lowest income province. Maximum literacy rate and enrolment rate are 100 and minimum literacy rate and enrolment rate are zero. Maximum life expectancy is 25% higher than that in the highest life expectancy province and minimum life expectancy is 25% lower than that in the lowest life expectancy province. For HDI computed for temporal comparison, the goalposts are: (i) the value equivalent to 25% higher than the mean of the two years' highest values for the upper limit; and (ii) the value equivalent to 25% lower than the mean of the two years' lowest values for the lower limit.

Chapter 2

LDC Graduation -An Assessment

Lao PDR seems to be on track to graduate from its LDC status; however, its exposure to economic vulnerability needs urgent attention. Its human asset also needs accelerated improvement. Graduation out of LDC status should not affect Lao PDR's trade prospects, beyond the usual competition it currently faces. In any case, Lao PDR needs to broaden its economic base and create competitive advantage in niche products to gain from its drive towards openness both globally and regionally, as well as to reduce its economic vulnerability. Investment in human development, in particular, education, health and skill upgrading, including literacy and numeracy, and in social protection, is critically important for accelerating economic diversification, raising productivity, reducing economic vulnerability and improving the human asset.

This chapter assesses Lao PDR's LDC status in terms of the specific indicators set by the UN Committee for Development Policy (CDP).³⁵ It needs to be reiterated that these indicators fall within the family of HD indicators and therefore improving on these would also raise people's choices and freedoms. The chapter also attempts to determine the possible effects on the Lao PDR economy when the country moves out of its LDC status in the near future. Specifically, the chapter discusses the following:

1. The status of different indices that define an LDC, and their trends, to understand Lao PDR's prospects for planned graduation out of its LDC status;
2. How different industries (especially exports) would be impacted upon in addition to the impact of aid reduction, if there is any, with LDC graduation;
3. The challenges of ASEAN Economic Community (AEC) integration without the protection of being an LDC.

Lao PDR's Prospects for Graduation

Lao PDR's 2020 Vision on LDC Graduation

The Government of Lao PDR is among the few LDC governments that are strongly committed to the goal of graduating from LDC status. The target year is 2020. The national commitment for LDC graduation by 2020 first appeared in the Sixth Lao People's Revolutionary Party (LPRP) Congress in 1996, stating that “... *developing the country towards moving out from the LDC status, reaching socio-economic development status that are significantly higher than present level ... agriculture and industry sectors have to develop substantially towards industrialisation and modernisation, living standards of the Lao people require lifting up; education and health are to be universal accessible ... gradually integrating the country into the regional and global levels ...*”. In the 8th National Socio-Economic Development Plan (2016-2020), this intention has been explicitly articulated in the form of a time-bound strategy.

This commitment has been reiterated regularly and, in order to achieve the goal, several steps have been taken: formulating the 2020 Strategy; preparing the National Strategy on Building-up [the] Country's Industrial and Modernisation Factors Towards 2020; developing the National Strategy on Turning the Country from a Land-Locked Situation to a Country of Land-Linked in the Sub-region; implementing the National Growth and Poverty Eradication Strategy; and so on. The strategies have been integrated into and synchronized with the different National Socio-Economic Development Plans (NSEDPs). The 7th NSEDP (2011-2015), focused on achieving the MDGs, and the recently adopted 8th NSEDP (2016-2020) has LDC graduation as a target and is focusing on thematic human development targets by 2020.

The Criteria and Thresholds

The criteria classifying a country as an LDC are stated in the Introduction. The thresholds of each of the three indices are as follows:

1. GNI: US\$1,035 is the inclusion threshold, but add 20% for graduation threshold (US\$1,242; year: 2015)—the higher, the better.³⁶
2. HAI: A score of 60 is the inclusion threshold, but add 10% for graduation threshold (i.e. 66)—the higher, the better.
3. EVI: A score of 36 is the inclusion threshold, but subtract 10% for graduation threshold (i.e. 32)—the lower, the better.

Like the HDI, GDI, etc., the LDC indicators are relative, i.e. relative to the performance of other countries on these indicators. The thresholds are set corresponding to the third quartile in the ranking of all LDCs and other developing countries.³⁷ The GNI, HAI and EVI thresholds are also not permanently fixed; they have changed over the years, and may rise for the next review in 2018. Finally, the data sources identified by the CDP are the only sources usable for calculating the LDC indices; other sources are not recognized.

For reference, the indicators are reproduced in Appendix 2.1. As can be seen, each of these indicators and sub-indicators of LDC classification are from the family of HD indicators. It follows that an increase in HD/HDI value should also result in improvement in these indicators; that is, if HD improves, the

country should be closer to being pulled out of its LDC status.

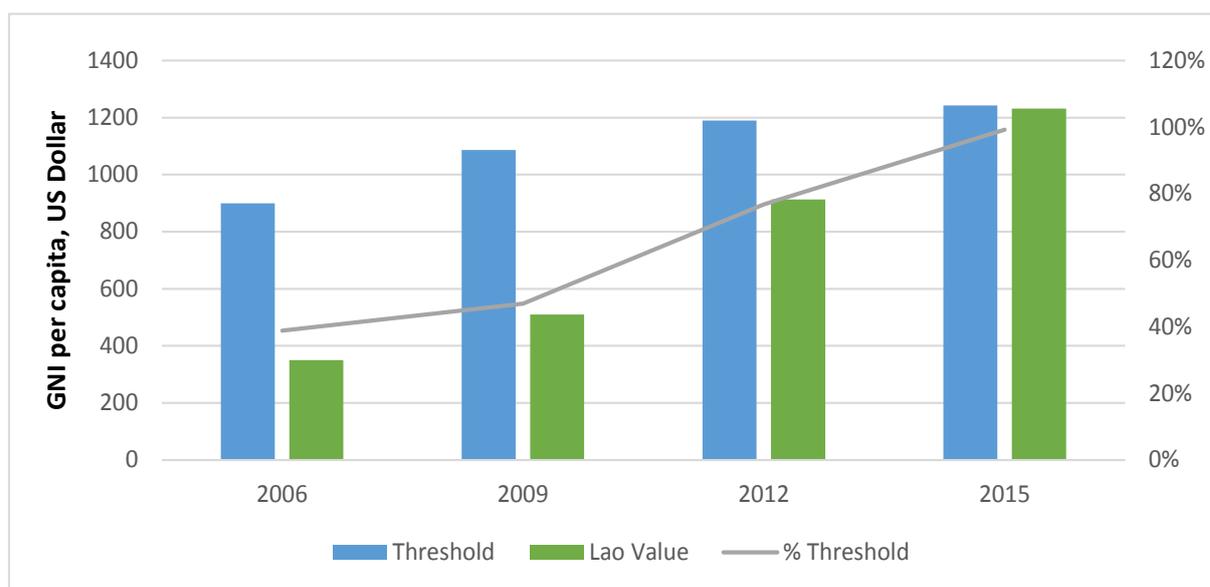
The three indices are independent and they are not to be merged to form a single complex index. As mentioned in the Introduction, these three criteria (or indices) quantitatively measure the status of a country’s development. Improvement in HD or moving out of LDC status are more than just an improvement on key indices (of HD or LDC); there are many underlying factors expected to accompany a country’s journey towards graduating from LDC status and beyond, such as better governance or improving institutions that would advance the quality of life of the populace at large.³⁸

Progress of LDC Graduation in Lao PDR

Gross national income (GNI) per capita

Based on calculations made by the CDP in 2015, Lao PDR’s three-year average (2011-2013) GNI per capita was roughly US\$1,232. This was about 99% of the threshold (US\$1,242).³⁹ The GNI per capita dramatically improved in the 2015 review, from US\$913 (or about 77% of the threshold of US\$1,086) in the 2012 review. It was about US\$510 (or about 47% of the threshold of US\$900) in the 2009 review, and about \$350 (or about 39% of the threshold of US\$900) in the 2006 review.⁴⁰ Figure 2.1 shows the progress of Lao PDR’s GNI per capita performance during the period 2006-2015.

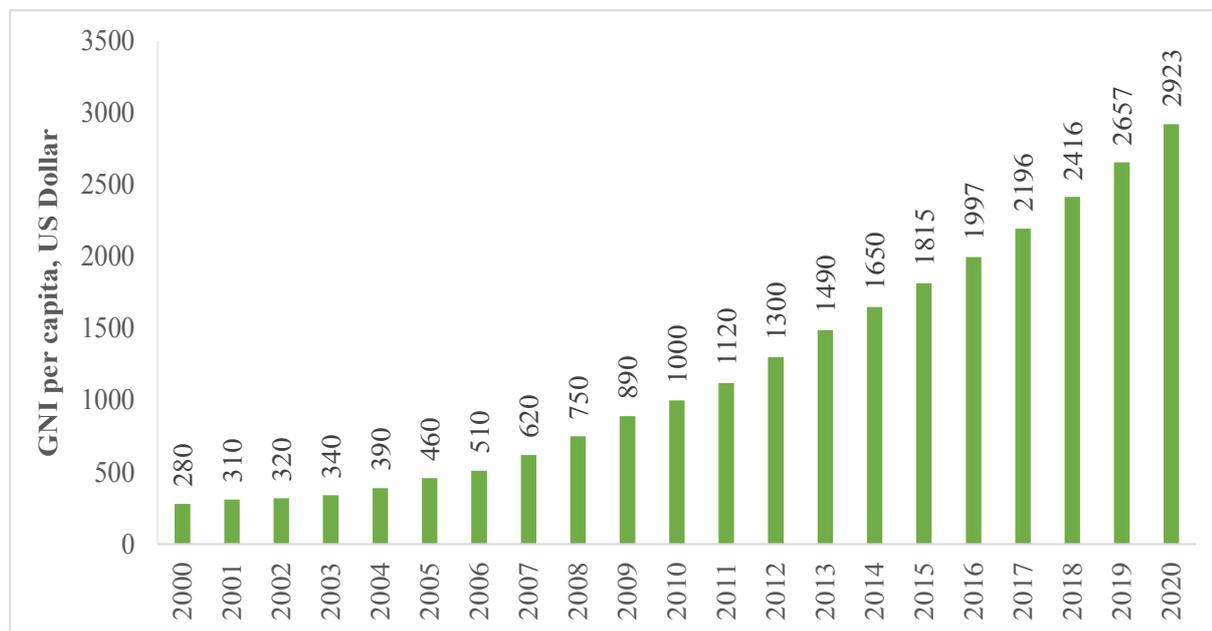
Figure 2.1: Progress of Lao PDR’s GNI per capita in recent reviews (2006-2015)



Source: CDP calculations; NERI.

The Lao economy is continuing to progressively develop and is expected to grow at an average rate of 7.5% per year, as projected in the 8th NSEDP (2016-2020). The country’s GNI per capita in 2018 is projected to exceed the graduation threshold and will be substantially above the level in 2021 if the threshold does not change (see Figure 2.2). This figure also shows that, if the GDP growth rates are as high as the 8th Five-Year NSEDP forecasts, Lao PDR’s GNI—which has a close correspondence with GDP—will be double the threshold, and the country should graduate out of being an LDC in the 2020s, irrespective of what happens to it on the HAI or EVI.⁴¹

Figure 2.2: GNI per capita as per World Bank databases (Atlas method), 2000-2020 (current US\$)



Source: World Bank database; 8th Five-Year NSEDP projections.

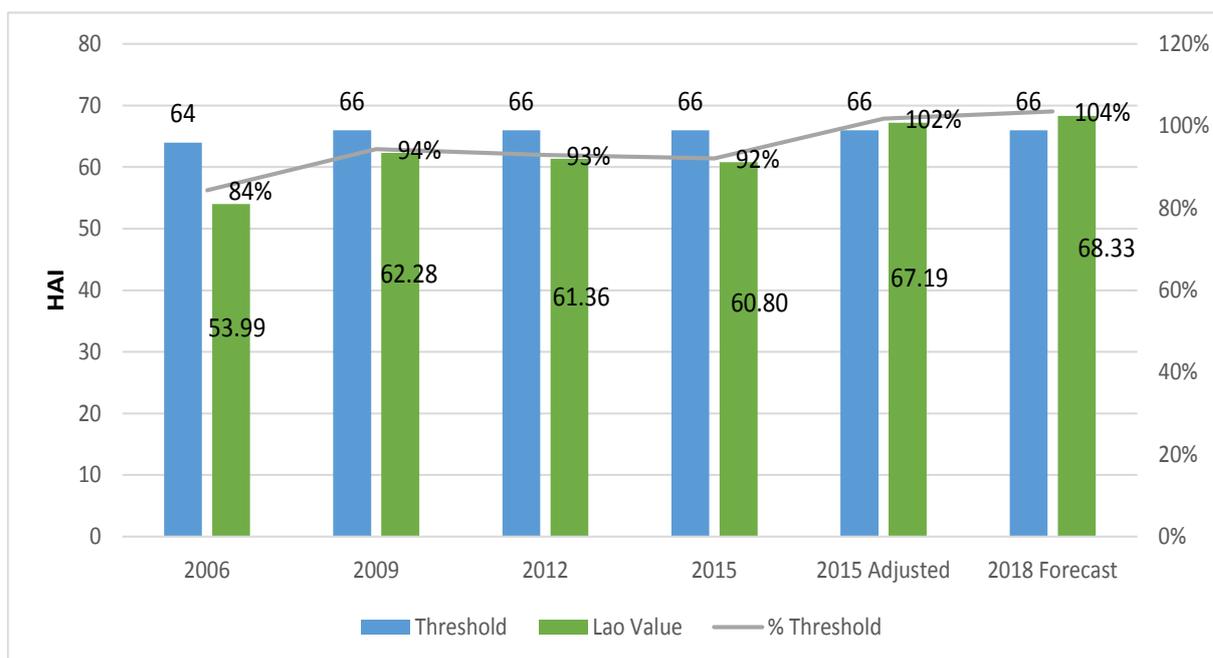
Human Assets Index (HAI)

The HAI value of Lao PDR has also improved since about 2003, but unlike the progress in GNI, the progress has not been smooth (Figure 2.3). In 2003, Lao PDR’s HAI value was 84% of the threshold; in 2006 it increased to 94% but in 2009 it fell somewhat to 93%, and in 2015 it declined further to 92% (Figure 2.3). It stayed above 90% consistently after 2006; however, the CDP review interprets this trend as relatively slower progress compared with some other countries. The country seems to be relatively slow in achieving the HAI targets. However, there are two plausible reasons for this; (i) the different indicators that constitute the HAI are generally slow to move compared with more volatile variables such as GNI and GDP; and (ii) there has been a change in the database since 2012, due to which the definition, coverage, etc. have changed.⁴²

In Figure 2.3, the HAI numbers in the first four sets of bars are based on data pertaining to 2012-2013 or earlier. More recent data suggest that there has been improvement on several social indicators; therefore, some fresh computations have been made using hitherto unused data from sources that the CDP is expected to use in its next review. The adjusted 2015 HAI value works out to be 65.32 (99% of the threshold).

A forecast for each of the four component indicators of HAI is made for 2016, as the next CDP review, in 2018, will use 2016 (it will be the latest year available in 2018). The basic parameters for the forecast are: undernourishment will decline by 3.8%, U5MR will fall by 6.7%, the literacy rate will increase by 7.2%, and secondary school enrolment will rise by 5.2%, every triennium. The forecast of HAI value based on these assumed parameters for the year 2016 works out to be 67.14. Thus, if the forecast is correct and the goalposts are not changed for the HAI, Lao PDR will qualify in 2018 for recommendation to graduate out of its LDC status.⁴³

Figure 2.3: HAI threshold and progress of Lao PDR



Source: NERI calculations made from CDP database.

Disaggregation of HAI values from the 2015 review shows that the value of the indicator of undernourishment was 72 (implicit threshold is 66), of the under-5 mortality rate (U5MR) was 62.79, of adult literacy was 63.6, and of secondary school enrolment was 45. Only the indicator of undernourishment reaches the required mark; the other three lag behind, especially the indicator of secondary school enrolment, suggesting that Lao PDR needs to work on the lagging variables on a priority basis for improving its HAI values.

Table 2.1 presents the marginal coefficient values of each of the four constituents of the HAI.⁴⁴ The values in this table suggest that a maximum *increase* in HAI values would happen if the nutritional status of the population were to increase, followed by an increase in the literacy rate, then an increase in secondary school enrolment, and finally a reduction in U5MR. Investing in these HAI components will also improve human development. Given the fact that there is a synergy among these four—educated people would take greater care of their health and invest in nutrition, etc.—greater attention on any combination of these indicators would help improve the others as well.

Table 2.1: Marginal coefficient values of HAI with respect to unit changes in the constituents

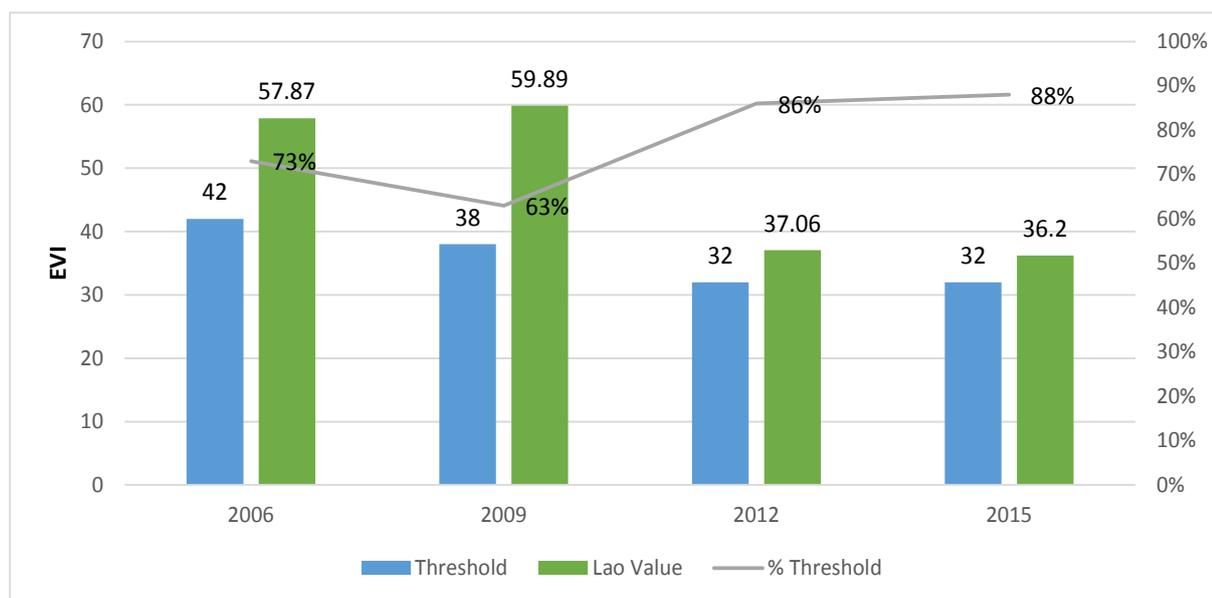
Variable	Value
Undernourishment	-0.42
U5MR	-0.15
Literacy rate	0.33
Gross secondary school enrolment ratio	0.28

Source: NERI; internal calculations.

Economic Vulnerability Index (EVI)

The EVI, a complex index of a number of variables, mainly includes agriculture and commodities (their importance and instability in production and export) and the impact of natural calamities. In the early and mid-2000s, the EVI value in Lao PDR seemed to have diverged further away from the required minimum, but in 2012 and again in 2015 it converged back towards the required graduation score (of 32—the smaller the better). In 2015, the CDP review found that the country had achieved 88% of the graduation requirement on the EVI count (Figure 2.4). It is thus still some distance away from the requirement.

Figure 2.4: Lao PDR’s EVI evolution in comparison with threshold



Source: CDP for up to 2012; NERI calculations for 2015.

Box 2.1: EVI – Some Issues

The EVI’s definition, computation and data raise many questions, since they appear to put in place a “one-size-fits-all” index. For example, take remoteness: Lao PDR is a landlocked country and, on the face of it, this appears to be an impediment for access to the world markets. However, consider the following:

- Electric power is transmitted through high-tension cables and joined with the Thai grid less than a few km away – the notion of remoteness is meaningless here;
- The trading partners of Lao PDR for most agricultural products are just across the border (<20 km) and distances do not matter for these products (see: DTIS for Lao PDR, prepared by the Ministry of Industry and Commerce, Lao PDR

file:///Users/sarthiacharya/Downloads/lao_pdr_dtis_update_2012.pdf.

Take a second example of merchandise export concentration and the share of forestry or export instability:

- The demand for metals or metal ores is price inelastic. If there is a slack in demand, it is because there is no physical demand—for instance, due to the economic slowdown in China and other major economies. Why should distances then matter for this export item?

- Wood and wood products are high in demand globally, as natural forests are fast disappearing. Also, there are a number of international treaties requiring natural resources to be conserved. Lao PDR is among the few countries in Asia (along with Indonesia and Papua New Guinea) that supply wood products. The demand is virtually price inelastic.

In short, there is scope to bring in some country-specific variations in calculating the index to suit each country (or group of similar countries). Thus, while Samoa, Fiji or Tonga might be critically dependent on fish and some agricultural products, and some islands also face inundation if the sea level rises, the central Asian countries in the Commonwealth of Independent States, Mongolia or Lao PDR face very different conditions.

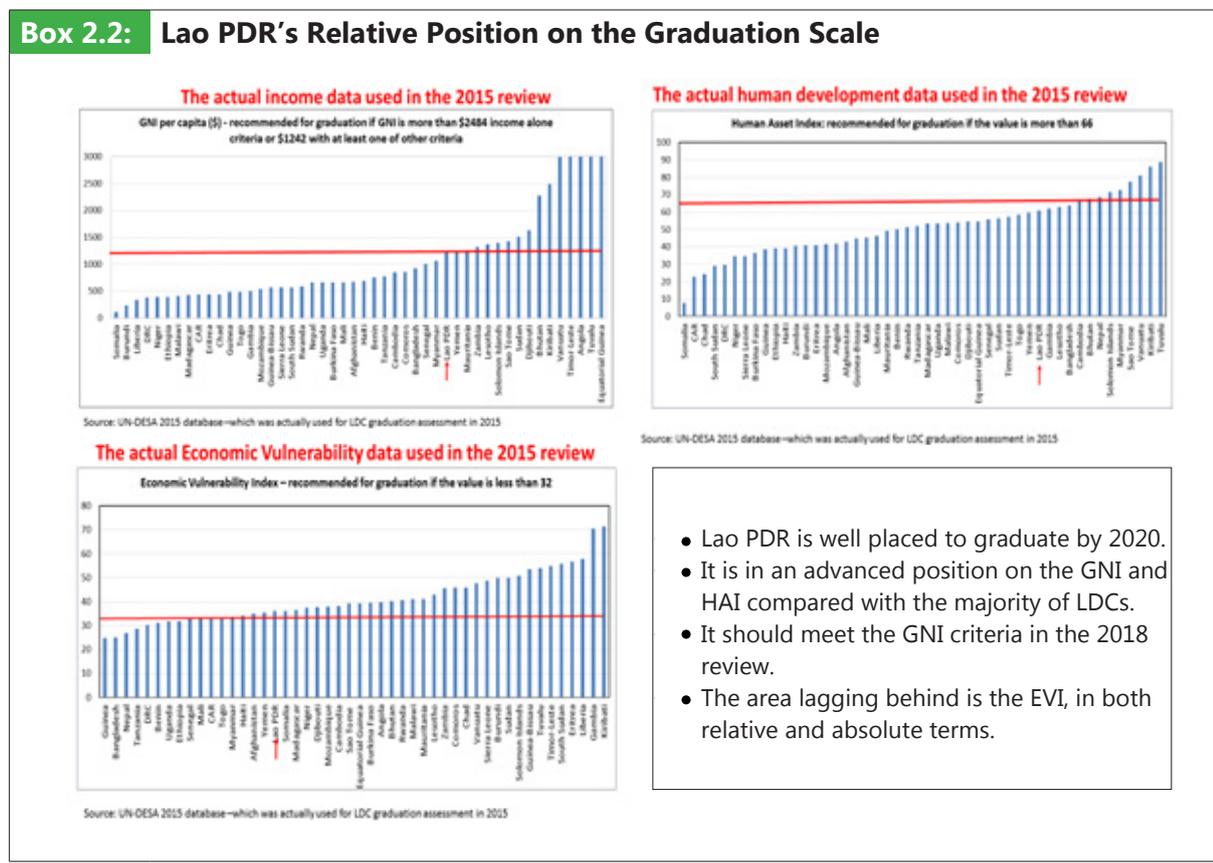
The EVI accounts for the difficulties and uncertainties that an LDC (might) face with regard to its economy, exposure to natural disasters and geographic positioning. While a simulation exercise like the one carried out for the HAI is not done here, given the difficulty in forecasting its sub-indicators, a few points require mentioning about the likely or expected future direction of the EVI.

A disaggregation of EVI values from the 2015 review shows that the value of the population indicator was 41.4 (implicit threshold is 32—the lesser the better), of remoteness was 58.8, of export concentration was 22.4, of the share of agriculture was 41.9, of forestry and fisheries was 41.9, of victims of natural disasters was 88.9, of agricultural instability was 20.4, and of export instability was 24.2. These figures suggest that the key to keeping the EVI value low is remoteness, but in light of the points presented in Box 2.1, central to reducing the EVI value should be economic diversification, and reducing exposure of the population to, and impact of, natural disasters. Some key policy aspects of decreasing EVI value in view of the current developments in Lao PDR and the NSEDP 2016-2020, are discussed below.

- The Government has proposals to increase controlled irrigation, diversify crops and also commercialize activities such as livestock farming. With these in play, higher stability in agriculture and its allied activities can be expected. As Chapter 4 will show, part of this is already happening, though a great deal more requires to be done.
- If a cartelization of rice or other agricultural commodities takes place, as was proposed by Thailand some time ago, possibilities for export price stabilization of paddy/rice can be expected. This is one of the initiatives that the country requires to undertake in collaboration with its ASEAN partners and other agricultural exporting countries of Asia.
- Merchandise export concentration will remain high for a while. But exports like electric power are akin to what petroleum products were until recently: they experience high demand, little or no price elasticity and virtually no danger of a market crash. The ecological dimensions in addition to distribution of gains, however, are aspects that require continuous attention.
- Policies of modernization and industrialization in Lao PDR, discussed in more detail in Chapter 4, should help the country move further away from primary product dependence, though Lao PDR needs to strengthen human development on an urgent basis for accelerated industrialization.
- The present policies for disaster management and mitigation require a boost, especially with regard to early warning systems, satellite imagery of floods and so on, in addition to completely stopping slash-and-burn cultivation, deforestation and unscientific mining. Also, as the database on these issues is limited, the need to strengthen it cannot be underscored more heavily.

Each of the above can help decrease (i.e. improve upon) the country's EVI value.

In sum, Lao PDR has made definitive progress on all of the three criteria of LDC graduation since the last review, conducted by the CDP in 2015, when it did not qualify. Calculations using the latest available/projected data on GNI and HAI value suggest that by the time the next assessment is made (in 2018) Lao PDR's GNI per capita should have crossed the graduation threshold (in fact, it already has, in 2015/2016), and so will have the HAI value. Not much can be said about the EVI value at this stage, though it is expected to show some improvement. But as the country should qualify on two of the three criteria, it will be eligible to be placed on track for graduating out of the LDC grouping of countries. Box 2.2 shows Lao PDR's relative position on all three criteria vis-à-vis other LDCs. The analysis, however, does not suggest that there is any room for complacency: there are areas in education (secondary school education and literacy) and the U5MR, for instance, which need to be worked upon continuously. The same applies to several components of the HAI, which will also contribute to human development.



LDC Graduation: Likely Losses and Options

LDCs enjoy certain benefits, in terms of access to markets, trade facilitation, technology transfers and development assistance (see Box 2.3). When countries graduate out of LDC status—in addition to their progress on the indicators—it is assumed that they would also acquire sufficient prowess not to rely on external assistance for the provision of basic services of reasonably acceptable quality to the people. They are further expected to enter into varied (and higher) forms of partnerships with other countries for mutual benefits in the realms of trade, capital/technology transfer, educational and cultural exchange and the like. Through the process of forging new partnerships, the countries also assume a higher negotiating

status in regional and international forums such as ASEAN and the Asian Development Bank (ADB)/ World Bank, World Trade Organization (WTO) and UN. Lao PDR requires to assess what forms of newer partnerships it could enter into and with whom, and the minimum in-country requirements/ obligations for these.⁴⁵ The government of any country graduating is expected to work continuously towards maintaining and improving on all the standard indicators of development, including human development.

In order to assess the likely losses and potential gains of Lao PDR from LDC graduation, this section analyses Lao PDR's current engagements with various economic blocs and international organizations, its trade structure and its aid dependence.

Box 2.3: Benefits of Being an LDC

There are several concessions available to LDCs from the Organisation of Economic Co-operation and Development (OECD) and other DP countries. A brief and simplified listing of the preferences offered or applicable to Lao PDR follows:

- Preferential trade with the OECD and other countries;
- Market access to various countries;
- International development assistance (soft loans and grants);
- Debt relief;
- Special facilities under WTO membership;
- Benefits under UN membership (through the UN Economic and Social Council (ECOSOC));
- Assistance for human capacity improvements.

These can be grouped together into: (i) trade (and debt relief), and (ii) concessional inflows/grants and technical assistance (including capacity building).

Trade and Debt Relief

Trade Preferences under the WTO

There are two general schemes regarding preferential trade for developing countries at the global level currently in place. One is the Generalized System of Preferences (GSP), which permits LDC exports into the European Union (EU), the United States (US) and other OECD countries with no reciprocity, i.e. there is no associated import obligation. The other is the Global System of Trade Preferences (GSTP) among developing countries, a reciprocal scheme available for the signatories.⁴⁶ Additionally, the WTO agreements offer Special and Differential Treatment (S&D) to LDCs. There are at least five categories under which the concessions can be gained:

- Increased market access;
- Increased flexibility in the rules governing trade measures;
- Longer time periods for implementing agreements and commitments;
- Measures to increase trading opportunities for developing countries;
- Support to help developing countries build the capacity for carrying out WTO work, handling disputes and implementing technical standards.

Lao PDR has been a full member of the WTO since 2 February 2013. It should (potentially) be receiving some or all the advantages under S&D, even after graduating out of the LDC category. Lao PDR has not participated in the GSTP yet, so its LDC status does not matter in this regard. But Lao PDR’s exports are permitted, mainly into the EU, under the GSP with minimal or no tariffs or quotas.⁴⁷ Thus, the LDC graduation could potentially affect Lao PDR’s exports to the EU; however, this is highly unlikely given the current composition and direction of Lao PDR’s exports (dominated by the resource sector and three non-European importing countries).

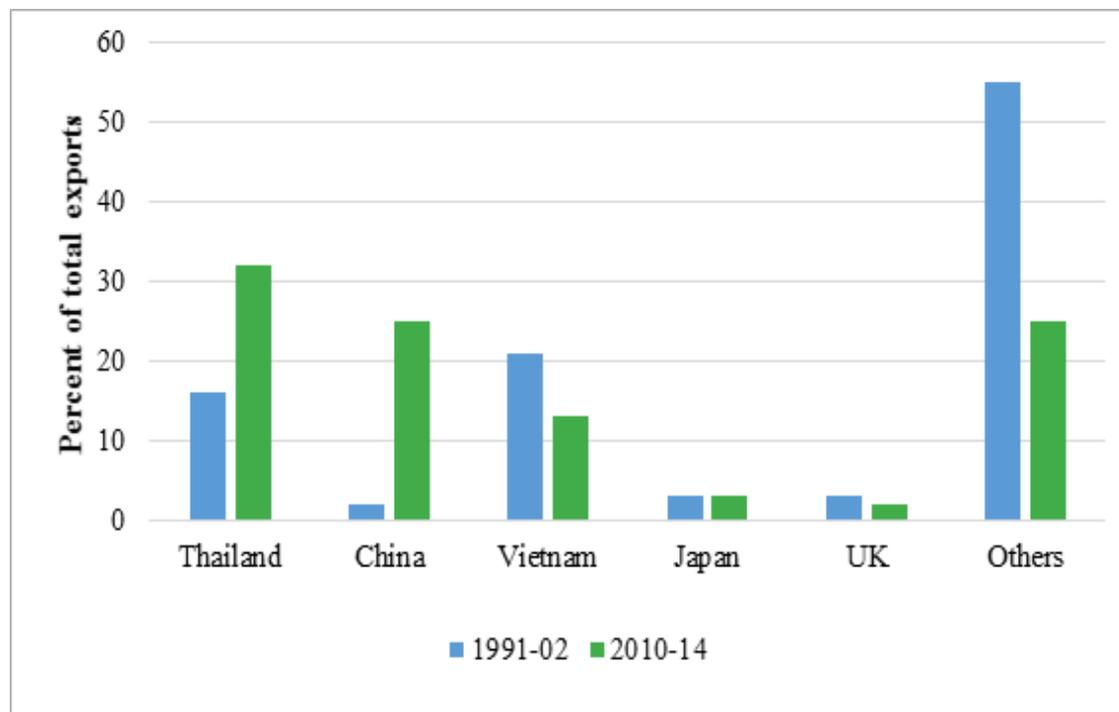
Lao PDR’s Trade⁴⁸

Lao PDR mainly trades with Thailand, China and Vietnam, with China having an increasing influence on its trade and the overall economy (Figure 2.5a). Exports to these countries are not dependent on the preferences given to LDCs.

Figure 2.5b shows that Lao PDR’s export composition has fluctuated over the years. Of significance is the dominance of primary products—after dropping from 80% in 1990 to around 40%, its share climbed back to its previous level in 2010. Interesting to note is the decline in the share of manufacturing, including labour-intensive clothing and footwear manufacturing. This means that, from the export composition point of view, too, Lao PDR’s graduation from its LDC status is unlikely to affect it adversely beyond the usual condition of the global and regional economies.

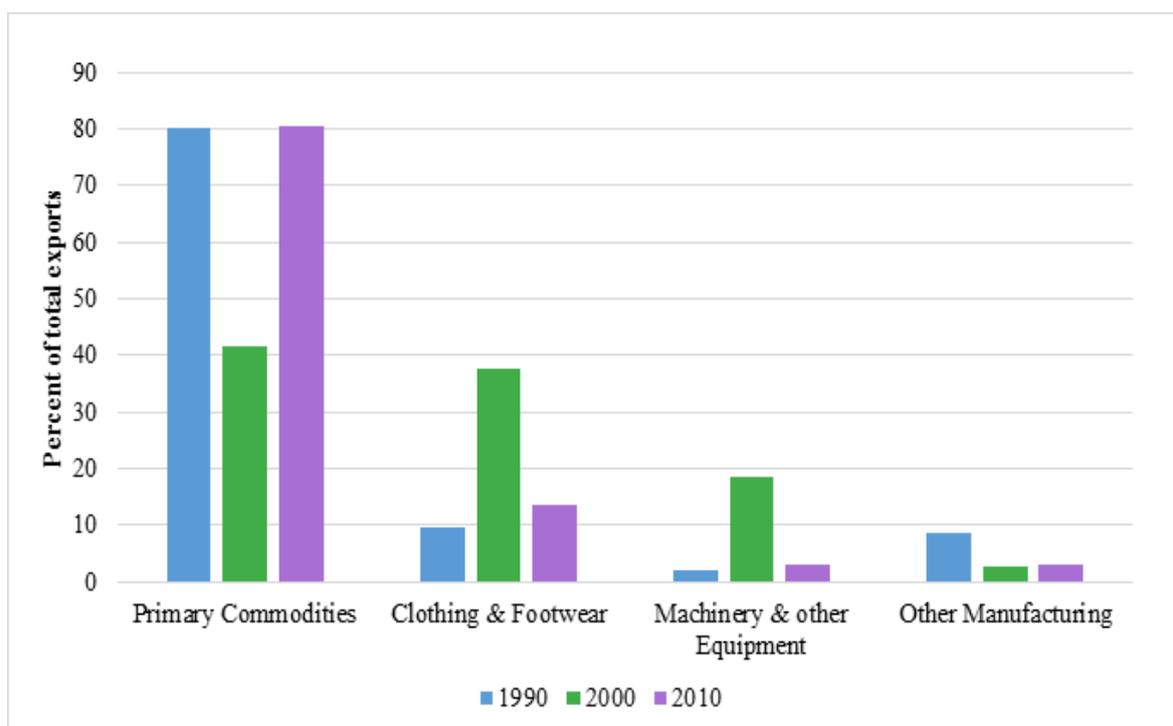
The likely LDC graduation implications of Lao PDR’s selected export items are discussed in some detail below.

Figure 2.5a: Direction of Lao PDR’s exports



Source: <http://www.trademap.org>.

Figure 2.5b: Composition of Lao PDR's exports



Source: <http://www.trademap.org>.

Garments

Garment exports constituted almost 40% of export earnings at the turn of the century, thanks to the Multi-Fibre Agreement (MFA—which expired in 2005) and the GSP agreements, which permitted duty-free (and quota-free) import of garments into Europe/the EU. With the rise of mining, electricity production and other similar economic activities in the country, this product category has lost out in relative importance and its share now stands at no more than 7-8% of total exports. In real terms, however—as seen from Figure 2.6—its export value has been rising. In 2014, garment exports were worth about US\$270 million and the compound annual trend growth was about 6% for the period 2001-2014.

Trade facilitation through the WTO and other bilateral or plurilateral treaties is only an initial condition; in the final analysis, export growth is driven by demand. Would the removal of a zero tariff or near-zero tariffs (or quotas) then matter to export earnings? Put another way, what would happen to the garment industry after the withdrawal of the extant concessions?

Figure 2.6: Garment exports from Lao PDR, 2001-2014 (US\$ '000)



Source: <http://www.trademap.org>.

Three points can be put forward to answer these concerns:

1. To say that Lao PDR's garment factories would begin to shut up shop in the face of tariffs (or quotas) imposed by the importing countries might be simplistic. Many of these (garment) factories are already becoming "offshore" and "outsourced" outlets in the division of labour with China and Thailand on the one hand, and Cambodia–Laos–Myanmar–Vietnam (CLMV) on the other (i.e. in the Mekong Corridor). As this process strengthens, it is likely that many of these factories will become more specialized in niche activities and strengthen rather than shut down, though those that are unable to restructure might go out of business. In short, the standalone factories producing garments in the low technology cut–make–trim (CMT) stage and selling them through the GSP route may not survive an open market regime, while those that restructure should thrive.⁴⁹ Restructuring, thus, is the key to survival. In fact, Lao PDR cannot stay in low-end, labour-intensive manufacturing for very long given the small size of its labour force and the continued pressure on its exchange rate from the resource sector boom. Therefore, Lao PDR has to leapfrog into high-value-added niche items, regardless of its LDC status, as Bangladesh is now doing (see Box 2.4) and Singapore did during the late 1970s to mid-1980s.
2. There is a window of 5-6 years before the industry becomes fully exposed to an open market. During this period, the garment factory owners are best advised to upgrade their technologies and invest in skill development (on-the-job training) to raise productivity, improve product quality and reduce (unit) costs, in line with the argument made above for restructuring.⁵⁰
3. Countries other than the LDCs also avail themselves of GSP-type concessions. For example, in 2004, the EU extended to Pakistan all the advantages of the GSP, even though Pakistan is not an LDC.⁵¹ Lao PDR has room to negotiate its own status in the GST system for extended periods after it graduates from LDC status.

Box 2.4: Upgrading the Apparel Sector and Creating Domestic Linkages: Lessons from Bangladesh

Bangladesh is often cited as an example of a country that has successfully moved from CMT to FOB. Bangladesh has one of the largest apparel export industries in terms of value (US\$22.8 billion) and global market share. The apparel industry is also extremely important to the economy, accounting for 83% of total merchandise exports and employing 4 million workers in 2012. Today, the industry is dominated by locally owned firms, accounting for over 90% of firms in Bangladesh. Many of these firms undertake FOB activities, creating jobs downstream and supporting SMEs. But this was not always the case. Government policies played a central role in initiating the industry by providing linkages to foreign buyers, technology and knowledge transfer.

Moving from CMT to FOB typically requires an exporting company to have: (i) direct access to buyers in foreign countries; and (ii) access to finance to purchase the textile inputs. From a country perspective, the firm's location also needs to be the headquarters location or a single location of a domestic company. Direct access to buyers can be secured from initial relationships facilitated through an agent or by attending events such as trade shows. Access to inputs can also be facilitated via EPZs that enable duty-free imports if products are exported; however, this limits backward linkages to build a textile industry.

Source: Varela, Hollweg and Gomez-Mera (2016)

Coffee

The total exports of coffee (plus tea and spices)—a niche product in Lao PDR (some 80% is Robusta and the rest Arabica)—amounted to about US\$68 million, which was some 1.8% of total exports in 2014 (Figure 2.7).⁵² This product has shown volatility in export earnings: it peaked in 2011 and thereafter there has been a fall, and price fluctuation is an important reason for this.⁵³ Coffee demand globally comes from the rich countries while it is produced in South/Central America, Asia and Africa. Lao PDR's export earnings from coffee, however, have been falling in recent years, partly because of intense competition, and partly due to the low yield rate (compared with, say the farm yield rates in Thailand or Vietnam).

Figure 2.7: Trends in coffee (and spices) exports (US\$ '000)



Source: <http://www.trademap.org>.

To say that Lao PDR's coffee will not find a market in the face of tariffs imposed by the importing countries is not realistic. As Paul Christopher, chief international strategist at Wells Fargo Advisors, told Bloomberg in 2012, "There's very low price-elasticity-of-demand for coffee."⁵⁴ But this was for retail. The exporting countries, at least in Asia, have to sell to large international merchants and dealers, who procure the product from multiple sources. They change their portfolios from time to time to maximize their (global) profits. Such shuffling affects smaller exporting countries and suppliers. One option for Lao PDR is to join an international marketing cartel to maintain its share in the international markets. However, the best option is to move upmarket and produce high-quality specialty coffee (see Box 2.5).

Box 2.5: Rwanda's Leapfrogging to Specialty Coffee – Lessons for Lao PDR

Rwanda is a landlocked LDC, as is Lao PDR. It also shares many similarities with Lao PDR, such as natural resource richness, ethnic diversity and mountainous topography. It too has a small population (about 9.5 million) that includes a high proportion (67%) of people of working age (15-64 years old).

Coffee production was introduced into Rwanda by Germans in 1904 and until very recently the country was known as a producer of mediocre coffee that attracted little attention from discriminating importers or consumers. But when, in 2008, Solberg and Hansen, a Norwegian importer of high-quality specialty coffee, offered just under \$40 a kilogram for coffee from Rwanda (as opposed to the normal price of specialty coffee of \$3 to \$4 a kilogram), it represented a real and positive transformation within Rwanda's coffee sector. Today, Rwandan coffee is increasingly recognized as a high-quality product. Specialty coffee production increased from less than 1,000 tonnes in 2004 to about 6,000 tonnes in 2012.

The transformation of Rwanda's coffee sector happened relatively quickly. In 2000, Rwandan farmers were producing semi-processed coffee for sale on world markets. Farm gate prices paid to farmers were low (60 Rwandan francs a kilogram), and prospects for farmers and exporters to increase income or profits were limited.

In response to the collapse of the coffee price in 1997, the Government designed National Coffee Strategy in 2002 to shift away from low-quality coffee to high-quality specialty coffee and to break a perceived "low quality, low quantity trap". Under this strategy, the Government liberalized the sector, removing a variety of barriers to trade, creating new incentives for groups and individuals to invest in coffee production, and facilitating entrepreneurship in the coffee industry. As one of four focal sectors identified in the Government's 2008–2012 Economic Development and Poverty Reduction Strategy, the coffee sector remains a high priority for the Government.

Working with the private sector and international donors, the Government of Rwanda has reshaped the coffee industry: the regulatory framework for production has been modified; more than 100 coffee-washing stations have been built; donors have supported the development of market links between producers and foreign buyers; cooperatives have formed; and smallholder farmers are working together in an effort to improve the quality, marketing and branding of their coffee.

Before 2001, banks provided seasonal financing to traders and "middle-men" who procured coffee beans directly from smallholders or cooperatives, dry-milled coffee using traditional methods and exported it. But after the crash in the coffee price and having sustained heavy losses, banks stopped even seasonal financing. Installation of coffee-washing stations, a prerequisite for a transition to high-quality specialty coffee, required high start-up costs and working capital which seasonal bank financing could not meet. The implementation of a loan guarantee scheme through the Development Credit Authority and the provision of donor-supported credit lines broke the barriers to access to financing coffee-washing stations, which quickly transformed Rwanda's coffee sector.

The transformation has had significant economic and social impacts. Coffee continues to generate important export and government revenues. Foreign exchange earnings from specialty coffee rose from \$0 in 2001 to over \$27 million in 2011; total coffee earnings increased from \$20 million in 2002 to \$74.6 million in 2011.

Higher incomes benefit farmers, their families and their communities in a variety of ways. Cooperatives, reaping higher profit, are able to hire workers, purchase capital and support community projects such as improved schools.

The transformation of the Rwandan coffee sector is also creating social benefits. Working together at coffee-washing stations—typically located in the rural, hilly, and relatively inaccessible areas where coffee grows and where little other commercial infrastructure exists—farmers have new opportunities to interact with other Rwandans. These repeated interactions reduce the sense of ethnic distance among members of Rwandan society. As farmers and other workers at coffee-washing stations experience the increased economic satisfaction that comes with higher income earned from coffee, they also feel greater levels of trust toward people with whom they interact and thus develop more positive attitudes toward reconciliation. Since coffee in Rwanda is grown by poor, smallholder farmers who make up 90% of the population, these positive changes have the potential to benefit a broad swathe of Rwandan society.

Source: Boudreaux (2011); Islam and Islam (2015)

Other Agricultural/Livestock Products

The other food items that Lao PDR exports are cereals, vegetables, fruits, processed food, meat and meat products, fish, live animals, beverages and forest produce, which amounted to about 6.6% of total exports in 2014. The trend, seen from Figure 2.8, suggests a very high growth rate of some 28% per annum (compound annual). Almost all of these items are exported to the neighbouring countries, mainly Thailand, Vietnam and China, except Beer Lao (which is exported elsewhere as well). Since the neighbouring countries do not follow the GSP or other protocols relating to LDC status—ASEAN has its own rules and protocols, as does China—it is unlikely that these exports would be affected because of Lao PDR’s LDC or non-LDC status.

There is good scope for these items to flourish in the international markets if efforts are made to add more value to these through downstream activities, especially processing.

Finally, the tobacco sector, which constituted some 3% of exports in 2014, rose rapidly between 2001 and 2011, but thereafter has fallen. Tobacco products are also exported to the neighbouring countries; therefore, these are unlikely to be affected by forces/protocols other than those of the market forces.

Figure 2.8: Trends in exports of other food items (US\$ '000)



Source: <http://www.trademap.org>

Timber, Minerals and Electricity

Timber and timber products constitute about 29% of total merchandise exports, while mineral products (copper, gold, iron ore, other metal ores, precious stones, etc.) constitute some 30% of merchandise exports (2014 data). Electricity export—which presently has not a very large share in total exports (about 12-14%)—is expected to increase dramatically after 2020.

There is largely an inelastic demand for timber and timber products. No consumers anywhere have yet considered wood substitutes as “real substitutes”. Wood is a “precious” product now, as not many parts of the world have abundant forests or lands to plant forests. At present, Lao PDR is an exception. Even if the importing countries impose duties, most likely the price would be borne by consumers in the importing countries. The recent rule that processed wood alone qualifies for export would add value locally.

Likewise, there is a largely price-inelastic demand for metal and mineral products. If there is a downturn in demand—as at present— it is due to an economic slowdown in the importing countries. Also, the nature of the contracts with the multinational companies that mine the produce is such that Lao PDR receives the royalty and payments such as rents, transport contracts, etc., each fetching a fixed amount, and which are unlikely to be affected in the event that the importers impose import duties. Nevertheless, metal smelting/processing capabilities require local ownership in order to create and retain more jobs of higher value within the country, thus contributing to improvements in the GNI and EVI values.

Electric power demand is also price inelastic. Power projects are being invested in and implemented by foreign companies, which have entered into long-term agreements with the Lao PDR Government for the purchase of power. As power cannot be stored and has to be consumed, the operating foreign companies would have to bear the losses in the very unlikely event of excess power generation or duties imposed on the import of power by their governments. It should also be noted that Thailand, the main importer, is quite “energy hungry” for clean and renewable energy. In this sense, there should be no issue of demand.

In sum, LDC graduation is unlikely to affect Lao PDR’s exports. Rather, the country should use the graduation momentum to upgrade its industrial structure and commodity production, including raising agricultural productivity as part of its economic diversification and modernization drive.

Debt Relief

When Lao PDR graduates out of LDC status, the debt situation might become a little more serious as the loan component in the external assistance inflow will rise, and not all of it would be on easy terms. Lao PDR might need a long-term debt rescheduling (see also Box 2.6).

Box 2.6: Public External Debt

Lao PDR does not participate in the Highly Indebted Poor Countries (HIPC) programme. Its external debt is below the limit, at about 40% of GDP. The IMF estimates that the debt sustainability/stress continues to be moderate, though Lao PDR is on the verge of transiting to high risk with heightened vulnerabilities for public debt. This is more so with the debt component in aid assistance rising, particularly since 2012. A rising external debt-to-GDP ratio and breaches in the short- to medium-term thresholds point to the need to strengthen Lao PDR's debt management capacity.

Source: See IMF (2014), Lao People's Democratic Republic Staff Report for the 2014 Article IV Consultation: Debt Sustainability Analysis, Washington, D.C.

<https://www.imf.org/external/pubs/ft/scr/2015/cr1545.pdf>

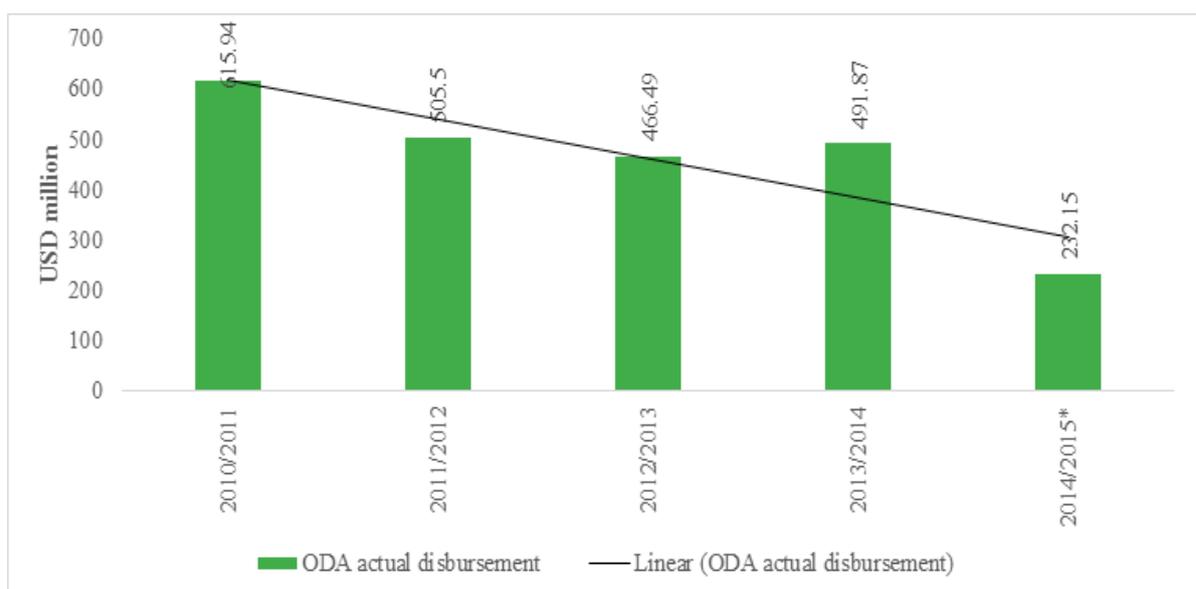
Concessional Inflows/Grants and Technical Assistance⁵⁵

Development Assistance⁵⁶

The overall disbursements under ODA, presented in Figure 2.9, suggest that, on average, ODA formed about 4-5% of GDP in 2013-2014, or some 20% of government budget (notionally, as not all aid is directed through the budgetary route). In recent years there has been a trend towards lower inflows. While the figures for 2014-2015 do not cover the full year (it is up to May 2015; the financial year ends on 30 September 2015), the Government is not certain whether there was a dramatic improvement in the last four months (June-September 2015). No doubt there is a downward trend in aid, though it might not be as steep as the numbers in Figure 2.9 suggest.

ODA disbursements, de facto, are decided by the DP countries' priorities, which are drawn up according to their *global* commitments. While international declarations related to LDCs are a guiding principle, they are not binding. In fact, there has been a fall in ODA disbursements in all of Asia as Asian countries have moved up the development ladder compared with, say, African countries, and Lao PDR is not an exception.⁵⁷

Figure 2.9: Trends in ODA disbursements (\$ million)



Source: AMP Database, MPI, Vientiane.

Note: Data for 2014/2015 pertain to receipts up to May 2015 (eight months). The financial year finishes on September 30, 2015.

Table 2.2 shows the indices of the trends in overall ODA and each of its components (2010/2011=100). There has been a fall in every type of funding compared with 2010/2011. Trust fund contributions have fallen the fastest, and technical assistance (TA) the slowest.⁵⁸ In fact, loans and technical assistance (TA) have been flipflopping, and in some recent years they have actually risen, though not higher than the 2010/2011 levels. However, trust funds' contributions are small (<5% of the total), so they do not matter much. The fall in grants make loans and TA relatively more important. Grants constituted over 80% of total inflows between 2011 and 2013, but fell to less than 80% thereafter. In 2014/15, they constituted some 72% of total disbursements. In absolute terms the grants component is falling faster than is overall assistance.

Table 2.2: Indexing of the trends in ODA and its components (2010/2011=100)

FY	Total	Grants	TA	Loan	Trust Fund	Humanitarian
2010/2011	100	100	100	100	100	100
2011/2012	82.1	77.9	109.7	110.2	70.1	180
2012/2013	75.7	71.7	115.2	72.6	94.3	2 800
2013/2014	79.9	73.3	112.6	139.7	43.6	1 480
2014/2015	37.7	31.7	94.3	61.6	8.8	110

Source: AMP Database, MPI, Vientiane.

The trends suggest that a movement towards ODA reduction and a change in the assistance portfolio are already taking place, much earlier than when the country will possibly graduate out of its LDC status, in the next 5-7 years. If the country is thriving with the external assistance already shrinking, its LDC graduation is unlikely to affect the situation significantly.⁵⁹

Table 2.3 suggests that the assistance from bilateral agencies has had a larger share all along; the five-year average stands at about 55.5%. In contrast, the share of multilateral agencies has been about 35%. The UN agencies contribute about 10%, while international NGOs contribute less than 1%. Bilateral agencies provide funds according to their global policies, which change from time to time depending on the prevalent global economic conditions and their country's strategic interest. These are very often negotiated between the DP countries and the recipients and do not depend only on the LDC status of the recipients. For example, Mongolia, Kenya and Pakistan are recipients of not insubstantial amounts of aid, but they are not LDCs. In fact, China, Thailand and Turkey, upper-middle-income countries and thriving economies, received some concessional inflows until recently.

Table 2.3: International assistance by source

Agency	FY 2010/2011	FY 2011/2012	FY 2012/2013	FY 2013/2014	FY 2014/2015	Disbursements (total, 5 years)
International financial institutions	229.5	198.8	151.9	184.7	58.5	823.5
Bilateral agencies	296.1	270.0	293.9	279.7	151.4	1 291.9
UN agencies	126.1	40.0	25.8	34.3	21.1	247.3
International NGOs	0.2	2.9	2.3	1.7	1.0	8.1
Total	651.9	511.7	473.9	500.4	232.0	2 369.9

Source: AMP Database, MPI, Vientiane.

Note: Figures for international NGO contributions do not add up due to some accounting issues.

Multilateral aid now increasingly comes in the form of loans; the grant component will in all probability become smaller over time. LDC status matters when loans are sought from the IDA window of the World Bank and, as Lao PDR moves out of LDC status, this window is expected to become smaller or close. The multilateral agencies, however, have the option of providing soft loans through trust funds for specific purposes such as poverty alleviation or meeting the SDGs, and this window should be open even if Lao PDR is no longer an LDC. Currently, financing from trust funds is small and shrinking for Lao PDR, but a concerted negotiation by the Government can open up this option.

Expenditures made by the UN are not loans and are not linked to LDC status; rather, they are linked to purpose, such as meeting the MDGs (and now SDGs) targets, demining contaminated areas, providing food for the poor, children’s health, fighting HIV/AIDS, etc. The amounts spent by the UN in Lao PDR are large, but shrinking. The actual inflow in the future will critically depend on the amount the UN can successfully mobilize from DP countries and others for developmental activities in Lao PDR.

The international NGOs are small players in Lao PDR. In any case, they work on principles not necessarily linked to its LDC status, but on their global priorities, funds availability and ease of working. International NGOs in Cambodia spend/disburse some US\$100 million annually, while they spend/disburse less than US\$2 million annually in Lao PDR. Both are LDCs and have similar characteristics. Lao PDR can actively seek this source to its advantage.

Most grants to study abroad for capacity building, through scholarships—irrespective of the source—are not necessarily linked to LDC status. In many cases these are part of bilateral agreements under “cultural and educational exchanges”, which will have to be renegotiated after LDC graduation with the countries concerned, and probably with more countries than at present. Surely, a few capacity-building grants are given because of the country’s LDC status, mainly to government officials, and these might have to be paid for once the country moves out of LDC status.

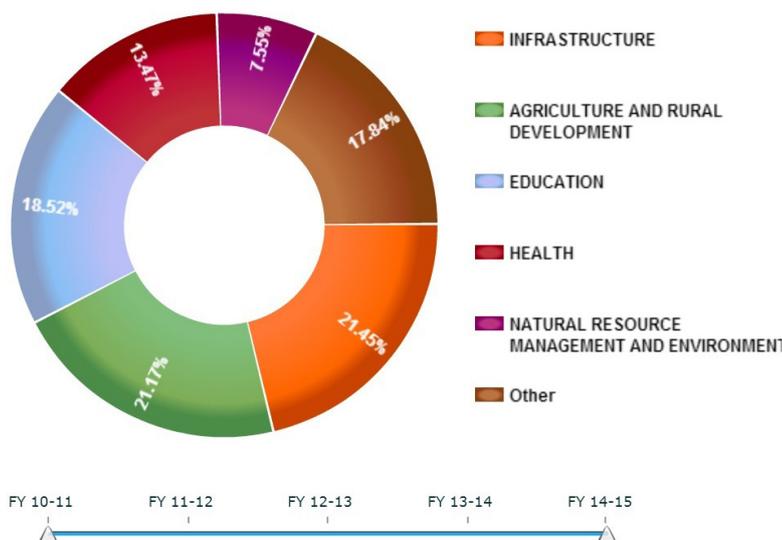
In terms of human development (and LDC status as well), other things being equal, a withdrawal of concessional inflows will adversely affect the sectors of education, health, agriculture and infrastructure, among others, as international assistance flows mainly to these sectors (Box 2.6). However, since the withdrawal is expected to be gradual, the Government should have a window of several years in which to raise and allocate resources for these sectors. The process of allocating higher amounts of resources to HD, though, has to begin now, as such processes are incremental. It will take several years for the country to allocate resources to meet the full resource requirements of this sector from national sources.

The above discussion shows that Lao PDR's graduation out of LDC status is unlikely to adversely affect

Box 2.7: ODA Matters – It Helps Achieve Human Development and Social

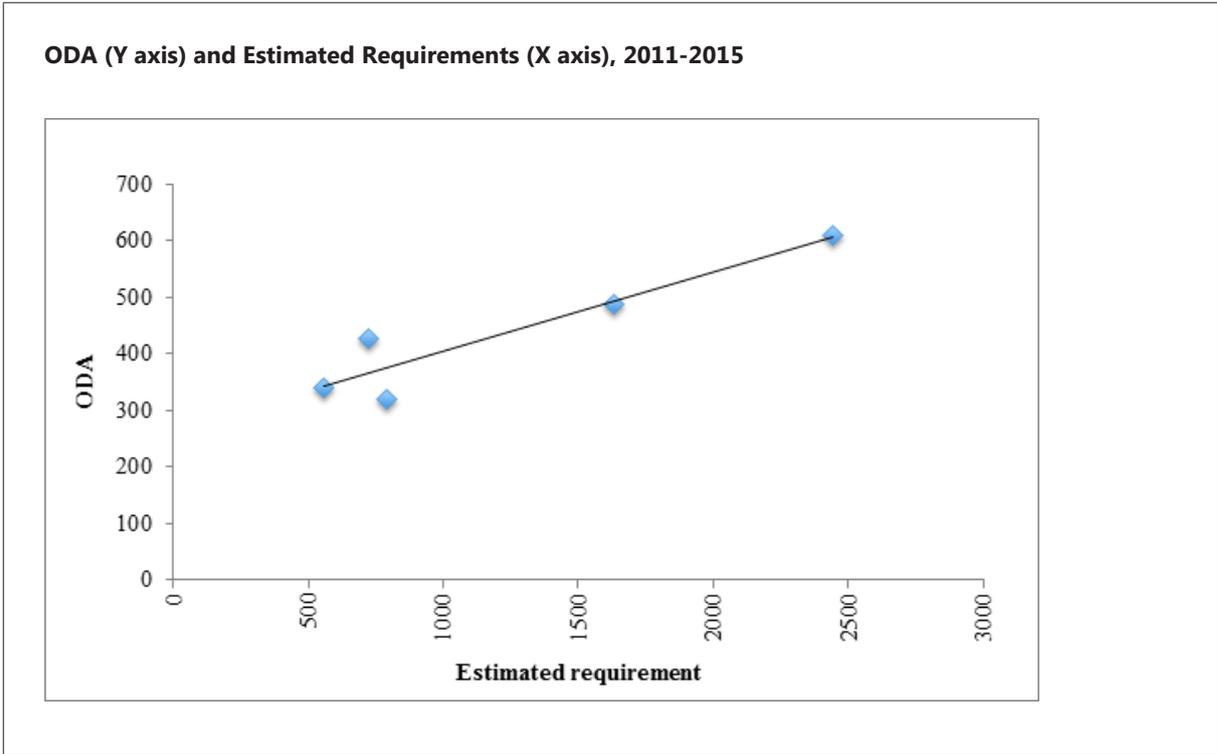
Much of the international assistance to Lao PDR is offered to the human-development-related sectors. Amounts from some sources might be small and the overall sum no more than 5% of GDP, but this assistance supports critical sectors such as health, basic education, agriculture, livelihoods, poverty alleviation, and the like. The pie chart below shows a typical picture of what international assistance is spent on. It has been seen in many developing countries that, when there is a budget crisis, the first sectors to face cutbacks are the social sectors. Lao PDR will have to ensure that the story is not repeated here if international assistance is drastically reduced.

Percentage Distribution of International Assistance by Sector (Five-Year Average)



Source: AMP Database, MPI, Vientiane.

For the 7th Five-Year NSEDP (2011-2015), the Government undertook an exercise to estimate the resources needed to meet the MDG targets in the plan. Estimates of the resource requirements were made for agriculture, education, health, infrastructure (water, sanitation, roads, waterways, etc.), environment and gender equality. The disaggregated data from the AMP Database (2011-2015), with a little regrouping, roughly show the levels of international assistance for agriculture/rural development, education, health, energy and infrastructure. The numbers so obtained from the two sources are then mapped to assess the association between international assistance and the MDG/social goal requirement (see figure below). In education, it exceeds the target (above the line) while in health it falls short (below the line). In other sectors the correspondence was exact. Thus, it is evident that the association is very high; in short, ODA is helping achieve MDG/social goals.



the country, especially with regard to its exports—both their composition and direction. Regardless of its status, Lao PDR needs to diversify its economy and improve productivity to create competitive advantage in high-value-added niche products. The only concern for Lao PDR is ODA—grants, concessional aid and technical assistance. However, the levels of these are falling, especially since the 2008-2009 global financial crisis, and Lao PDR needs to strengthen its domestic resource mobilization efforts. Both raising competitiveness and strengthening domestic resource mobilization are imperative, given the challenge Lao PDR is likely to face from its AEC partners after its full integration and removal/reduction of tariffs in 2018.

Challenges of ASEAN Integration

The ASEAN Economic Community (AEC)

The 10 ASEAN countries are moving closer to forming a larger market, permitting the free flow of investments and skilled workers (certain categories)⁶⁰ and lowering or removing altogether the tariff barriers to the free flow of goods. While ASEAN has been in existence for a while, the first major step towards *economic integration* was taken in 2015, but it seems that the progress is expected to be slow.⁶¹ However, sooner rather than later, the member countries are expected to move closer together economically, culturally and socially. Lao PDR, being a full member of ASEAN, is expected to be fully integrated with the AEC.

A relevant question is whether Lao PDR's LDC status should matter when it increasingly integrates with the AEC. Since ASEAN does not participate in the Istanbul Declaration nor is any ASEAN country a member of the Development Assistance Countries (DACs), in theory it should not matter. As the analysis in the preceding section suggested, Lao PDR's status as an LDC has borne little relationship

with its ASEAN membership. However, with greater integration into the AEC, many more facets will open up, and at some stage it will begin to matter whether the country is an LDC or not. To begin with, as mentioned in Chapter 1, partnerships work best among equals.

Potential Opportunities with Integration

Construction of road links between Vietnam and Thailand (East–West, passing through Lao PDR) and between Thailand and southern China (South–North, also passing through Lao PDR), regular direct flights between Vientiane, Bangkok, Hanoi, Kunming, Kuala Lumpur and Singapore, and a railway link to China, are some projects under way or in the pipeline that will further strengthen connectivity. They will make the country more “air-/land-linked” as against it being landlocked. Connectivity of the Special Economic Zones (SEZs) in Savannakhet and other regions should also help industrialize the country. Finally, the improved connectivity should provide a boost to restaurants and hotels, construction activities, banking and communication activities along the roads and railway lines. Lao PDR should have easy access to the ASEAN markets of some 500 million people, in addition to access to southern China. All this should help improve the GNI value (i.e. raise it) and the EVI value (i.e. lower it).

Lao PDR has been able to attract a number of multinational companies, including Nikon, Essilor, Toyota, Mitsubishi and Polycom during the past few years, resulting in rapid growth in the assembly and equipment parts sectors. With this development, Lao PDR began exporting equipment parts (such as camera parts), the value of which increased from a low base in 2013 to about \$300 million in 2015. This shows that Lao PDR can effectively participate in regional and global value chains. Improved AEC connectivity is likely to enhance this prospect.

Since the rules and regulations of doing business would align more closely across all the countries, the ease of doing business would also become greater. Some sectors in which Lao PDR may gain comparative advantage due to AEC integration are agro-processing (from the emerging agricultural surplus, including in tea and coffee), value-added tourism, mechanical and electrical goods assembly, electricity generation and mining. With the free flow of skilled workers there is the possibility of more skilled workers coming to Lao PDR, which should help the transfer of technology/skills to Lao workers.

There are also opportunities to strengthen education. ASEAN has some high-standard educational institutions, for example in Singapore, Malaysia, the Philippines and Thailand, and specialized institutions in Indonesia and Brunei. Since cultural exchange is a part of the integration process, there is an opportunity for Lao PDR’s educational institutions to link up with others in the region to raise their own standards. Faculty exchange and student/scholar exchange should also help people to understand and interact with the world outside and systematically reduce isolation.

Finally, in tourism, the country should attract tourists beyond the conventional markets, namely from countries beyond Thailand and Vietnam, through strengthened business associations with experienced high-end tourist operators in other ASEAN countries.

However, economic benefits from integration are neither automatic nor obvious. Besides increased competition, full integration poses other challenges, such as reduced policy and fiscal space due to tariff cuts and harmonization of tax rates, which may potentially limit Lao PDR’s ability to become more diversified and competitive.

Box 2.8: Traditional and Non-traditional Industries in Lao PDR – The Need to Do More

Traditional Industries

While tea production is not yet extensive, being confined to the hilly regions of Phongsaly and Nyot Ou and in the South on the Bolaven Plateau, the potential to expand this commercial crop is large. The 8th Five-Year NSEDP (2016-2020) emphasizes this repeatedly. Presently, production is less than 100 tonnes, but there is potential to increase this as the demand for the product is high in China. However, tea plantations are presently under smallholder agriculture—initially introduced to discourage farmers from growing poppies—which might not be very viable given that the markets for tea are much like those for coffee, controlled by large merchants. They are price elastic for the producers. Solutions must be found for this issue.

Tourism is already a large sector for a country of about 6.4 million people, with some 3.6 million tourists coming to Lao PDR. However, a more detailed picture suggests some 57% of tourists are Thai nationals, i.e. they cross the border, typically for a day tour and sometimes to visit Buddhist religious sites. The next largest group (some 25%) are Vietnam nationals, many of whom come for short business trips. The third largest group (7%) are Chinese nationals, and Western countries (including Japan) account for some 7%. This skewed pattern does not permit high earnings from the sector.

The tourism sector has to be broadened in terms of attracting more tourists from high-income countries and having them spend more time in the country, in order to enhance the sector's revenue. While the Government has identified new sites and new directions for tourism, such as eco-tourism, paragliding and other sports-related tourism, greater promotion is required. The vast mountain and sub-mountain terrain offers this possibility.

Non-traditional Industries

The authorities have established many SEZs where new industries such as motor vehicle assembly (Kolao-Hyundai, Honda and Toyota), optical glass fitting, camera assembly (Nikon), precious stone/stone processing, agro-processing, rubber processing and cement plants have been set up. These are in addition to the traditional textile and garment factories. The base, however, is small, and there is scope to broaden it by attracting both FDI and domestic investments in these sectors and improving the skill levels of workers. The country also needs to create conditions for more countries to invest in Lao PDR, in addition to the traditional partners, China, Thailand and Vietnam, whose investments presently constitute more than 80% of FDI, and are mainly in resource-based industries.

Sources: GOL (n.d.); Douangkham and Denkayaphichith (n.d.).

<https://www.teaguardian.com/quality-varieties/tea-varieties/laos-shengcha/9/>

For tourism, see <http://www.nationmultimedia.com/aec/Tourism-is-Laos-second-highest-income-earner-30206071.html>.

Box 2.9: Supporting Growth in Tourism – Lessons from Cape Verde

Cape Verde, which graduated from LDC status in 2007, experienced significant and rapid transformation through its tourism sector. It changed from a little-known, small island country into a mass tourism destination. Tourist arrivals increased from 67,042 in 1999 to 497,000 in 2015, an average annual growth rate of 14%. Tourist receipts have grown twice as fast, at a stunning 28% per year, resulting in high revenues per tourist, and are equivalent to a 44.5% of GDP (direct, indirect and induced). Largely as a result of its extraordinary growth in tourism, Cape Verde has achieved an average 6.5% GDP annual growth rate over the last decade.

Such a complex transition, which usually takes time, was aided by government policies. The Government of Cape Verde provided strong public leadership for tourism and developed a positive investment climate. Attracted by a stable economy, foreign investment in tourism has boomed.

- Cape Verde aggressively pursued tourism investment. The Government acquired land, and investment incentives and a stable economy led to fast tourism growth;
- High-quality airports, good aircraft maintenance facilities and supportive air policies were crucial to increasing arrival numbers. The country has an airport classified as Category I by the US Government.

The growth in tourism occurred quickly, and also led to a challenge for Cape Verde's authorities. The rapid growth resulted in gaps in conservation, infrastructure and linkages to the local population. Currently, the Government must address uneven development and high leakage of tourism spending, by deepening the economic and social connectedness and inclusiveness of tourism. To sustain growth over the long term also requires a professional private sector, with a skilled labour force.

Source: Christie et al. (2013).

Risks to be Managed

The first risk to note is that a single market would be highly competitive, at least in the manufacturing sector. With the exception of electricity and metals/minerals, major exports to ASEAN countries to date are agricultural products and small-scale traditional manufactured goods. For Lao PDR to effectively gain from ASEAN integration, the challenge is to raise the scale of operations and quality and, for this, both capital and skills are prerequisites. Additionally, care should be taken to protect the environment. Investment and efforts to meet all these challenges are essential, lest the country remain dependent on extractive industries, thereby not improving the human development situation.

Secondly, with tariff rates expected to become low and other non-tariff barriers to come down, the State would lose revenue earnings (from custom duties). This has to be compensated for through direct taxes, which is again a challenge. The reduction of tariff and non-tariff barriers would mean Lao PDR has to find other potent instruments to accelerate its economic diversification and create competitive advantage in high-value-added niche products.

Thirdly, the few skilled workers that Lao PDR has will also be tempted to move out of the country in search of better incomes.⁶² Lao PDR needs to design incentives to prevent a net "brain drain". Skilled labour migration may improve Lao PDR's remittance flows, but it has been found to worsen inequality.⁶³

Fourthly, intra-ASEAN trade and investment are still very limited, constituting about 25% of total trade and 16% of total FDI. The major exports and imports of ASEAN countries are parts and components of electronics and automotive products. Thus, intra-ASEAN market integration is not a major driver of ASEAN integration. The AEC is more likely to bring "production integration" than market integration, i.e. a deeper integration with the "Factory of Asia" which has been a major element of the global value chain phenomenon. Attracting more FDI into the resource sector and participating at the lower end of the global/regional value chain would not be very beneficial for Lao PDR in the long term. It must be able to participate at the high end.

The above issues need recognition well in advance of integration and essential steps must be taken to enhance competitiveness by improving the quality of workers/skills and products, and by seeking new markets. Each of these would require investment in people and business acumen among Lao workers on the one hand, and, on the other, management of the macro economy in a manner that will enhance productive investment in human development and infrastructure.

Thus, the larger economic integration of Lao PDR into the AEC presents both opportunities and challenges. On the positive side, there should be expansion of infrastructure and access to markets, each of which should create more opportunities for the country to grow in diversified directions. However, if the HD component does not grow simultaneously, Lao people will not gain much compared with those in the partner countries—a case of unequal partnership. This, in turn, will lead to lesser integration of the *Lao people* into the modern realm, much to their disadvantage. In short, investing in HD becomes a de facto precondition to effectively integrate into the AEC and participate in the high end of the regional/global value chain. This will also provide a boost to all three pillars of LDC graduation.

Conclusion: Policy Implications

Lao PDR appears to be on track to graduate from its LDC status; however, it needs urgently to address its vulnerability in terms of having a narrow economic base and exposure to shocks. Its human asset also needs accelerated improvement. Investment in human development—in particular, education, health and skill upgrading, including literacy and numeracy—and in social protection will help reduce its economic vulnerability and improve its human asset.

Given the structure and direction of Lao PDR's exports, its graduation out of LDC status should not affect its trade prospects, beyond the usual competition it currently faces. In any case, Lao PDR needs to broaden its economic base and continuously create competitive advantage in niche products to gain from its drive towards openness, both globally and regionally.

Lao PDR may lose access to concessional finance and technical assistance, and consequently it has to strengthen its bilateral relations, particularly with the advanced ASEAN countries, emerging economies in the region, such as China and India, and developed countries in the region—Japan and the Republic of Korea. Nevertheless, regardless of its status as an LDC, Lao PDR needs to strengthen its domestic resource mobilization efforts given the huge financing needs to attain the SDGs, globally declining/stagnating trends in ODA and the likely loss of trade-related revenues due to the tariff cuts required for its AEC integration.

Of greater importance is economic diversification and improvement of productivity. This is an imperative for both reducing economic vulnerability and facing the challenges posed by LDC graduation and for AEC integration. Given Lao PDR's underdevelopment, in particular its low level of skills and heavy dependence on primary commodities, it would be quite challenging for Lao PDR to harness benefits from AEC integration as well as make its LDC graduation smooth. Urgent investment in human development remains a key to success.

Appendix 2.1: Criteria for Identifying Least Developed Countries – Definitions and Main Data Sources

Adult Literacy Rate

The indicator measures the number of literate persons aged 15 and above, expressed as a percentage of the total population in that age group. A person is considered literate if he/she can read and write, with understanding, a simple statement related to his/her daily life. The indicator provides information on the size of the bases available for enlarging the trained and skilled human resources needed for development.

The indicator is regularly reported by the UNESCO Institute for Statistics.

Gross Secondary School Enrolment Ratio

The indicator measures the number of pupils enrolled in secondary schools, regardless of age, expressed as a percentage of the population in the theoretical age group for the same level of education. It provides information on the share of the population with a level of skills deemed to be necessary for significant developmental progress.

The indicator is regularly reported by the UNESCO Institute for Statistics.

Gross National Income per capita

GNI per capita provides information on the income status of a country. GNI is equal to the gross domestic product (GDP) less primary incomes payable to non-resident units plus primary incomes receivable from non-resident units. The GNI measure used by the CDP is expressed in current US dollars. Values are expressed in current US dollars, calculated according to the World Bank Atlas method and reflect an unweighted average of three years (2011, 2012 and 2013 in the case of the 2015 triennial review).

The UN Statistical Division calculates this on the basis of its National Account Main Aggregates Database and data of the relative weights of currencies in the Special Drawing Rights (SDR) provided by the IMF.

Instability of Agricultural Production

The indicator measures the annual fluctuations of total agricultural production expressed in real terms, which reflect, among other things, the vulnerability of countries to natural shocks, in particular impacts of droughts and disturbances in rainfall patterns. Agricultural production covers all crops and livestock produced in a country. The indicator is calculated by estimating the trend of agricultural production using a linear regression; the standard deviation of production around its trend is the instability.

The indicator is calculated by the CDP Secretariat, utilizing the volume index of aggregate agricultural production, net of quantities used for feed and seed, available from the Food and Agricultural Organization of the United Nations (FAO).

Instability of Exports of Goods and Services

The indicator measures the instability of the capacity of countries to import goods and services from current export earnings, a major source of production and employment in many developing countries. The indicator is calculated by estimating the trend of export earnings using linear regression; the standard deviation of exports around their trend is the instability.

The indicator is calculated by the CDP Secretariat, utilizing data on the exports of goods and services in constant US dollars available at the UN Statistics Division's National Account Main Aggregates Database.

Merchandise Export Concentration

The indicator measures the sectoral concentration of a country's exports, indicating to what extent exports are dispersed across different economic activities. The indicator is expressed as a Herfindahl Hirschmann index, defined as the sum of the percentages of the shares of each commodity (at the three-digit SITC product category) as a proportion of total exports. It is normalized so that it can vary between 0 and 1 (in case only one good is exported). Due to data constraints, it currently comprises only goods, but not services. The indicator provides information on the exposure to trade shocks resulting from a concentrated export structure.

The UN Conference regularly reports the indicator on Trade and Development through its data dissemination system UNCTADSTAT.

Percentage of Population Undernourished

The indicator provides information on the prevalence of undernourishment in the total population. It shows the proportion of the population whose dietary consumption continuously falls below an established minimum dietary energy requirement for maintaining a healthy life and carrying out light physical activity. Undernourishment compromises health status and educational achievement and has an important negative impact on productivity.

The FAO regularly reports on this indicator in its Food Security Statistics. These are available from <http://data.un.org/> and <http://www.fao.org/economic/ess/essfs/en/>.

Population

The indicator measures the de facto population of a country at the midpoint of the year indicated. The size of the population can be used as a proxy of a country's exposure to a variety of shocks, since small countries have fewer possibilities for economic diversification. Moreover, most small countries are highly exposed to natural shocks, which often affect the whole country.

The indicator is regularly reported by the Population Division of the UN Department of Economic and Social Affairs in its World Population Prospects database, available from <http://esa.un.org/unpd/wpp/index.htm> and <http://data.un.org>.

Remoteness

The indicator measures the trade-weighted minimum distance for a country to reach a significant fraction (i.e. 50%) of the world market. In order to account for relatively higher transportation costs and related handicaps of landlocked developing countries, a constant factor is added to the trade-weighted minimum distance for these countries. Remoteness reflects high transportation costs and limits the possibility for economic diversification, thereby reducing the ability of countries to respond to trade shocks. A more detailed explanation of the remoteness indicator and its calculation can be found in "Measuring remoteness for the identification of LDCs", prepared by the CDP Secretariat. The indicator is calculated based on data on geographic distance between the capitals or major cities in the world obtained from the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII), and data on exports and imports of goods and services obtained from the UN Statistics Division, National Accounts Main Aggregates Database.

Share of Agriculture, Forestry and Fisheries in GDP

The indicator is defined as the share of gross value added in the agriculture, forestry and fisheries sectors (Categories A and B in the ISIC classification rev. 3 and 3.1) in the GDP of a country. The indicator provides information on the exposure of countries caused by their economic structure, because agriculture, forestry and fisheries are particularly subject to natural and economic shocks.

The UN Statistics Division in its National Account Main Aggregates regularly reports the indicator database.

Share of Population in Low Elevated Coastal Zones

The indicator measures the share of the population in a country that lives in low elevated coastal zones, defined as areas contiguous to the coast below a certain elevation threshold. Currently, an elevation threshold of 5 meters is used. The indicator intends to capture vulnerability to coastal impacts (including sea level rise and storm surges) associated with climate change.

The indicator is available from the Centre for International Earth Science Information Network at Columbia University.

Under-5 Mortality Rate

The indicator expresses the probability of dying between birth and age 5. It is expressed as deaths per 1,000 births. Under-5 mortality rate provides comprehensive information on the health impacts of social, economic and environmental conditions in a country. It is seen as more reliable than alternative indicators such as life expectancy, in particular in LDCs.

The UN Interagency Group regularly reports the indicator for Child Mortality Estimation.

Victims of Natural Disasters

The indicator measures the share of the population that has been the victim of natural disaster. Victims of natural disasters are defined as people killed or affected (i.e. people requiring immediate food, water, shelter, sanitation or medical assistance). It covers weather- and climate-related disasters (such as floods, landslides, storms, droughts and extreme temperatures) as well as geophysical disasters (such as earthquakes or volcanic eruptions). The indicator reflects vulnerability to natural shocks, in particular the human impact of natural disasters associated with these shocks.

The indicator is calculated by the CDP Secretariat on the basis of data on people killed and on people affected from the Emergency Disasters Data Base (EMDAT) of the WHO Collaborating Centre for Research on the Epidemiology of Disasters (CRED), and data of total population from the Population Division of the UN Department of Economic and Social Affairs in its World Population Prospects database.

Appendix 2.2: Development Assistance Schemes – Architecture

The Brussels Declaration for the Least Developed Countries (BPOA) covered the period 2001-2010; under it, mainly the OECD countries provided development assistance, principally to grapple with poverty and challenges to sustainable development. Its successor, the Istanbul Programme of Action (IPOA) covers the period 2011-2020; again, under it, mainly the OECD countries provide development assistance (see Introduction, Box 0.1). Other countries also provide assistance but it is mainly bilateral, outside the IPOA framework.

Under these programmes, OECD/DAC donor countries have pledged ODA of about 0.15% of their GNI for LDCs. A large component of the transfers under these programmes are grants and/or concessional loans with long-gestation payback periods (e.g. the Japanese Yen loan programme, with a 50-year payback and <0.1% interest rate) and some technical assistance. The non-OECD/DAC countries also participate in programmes to assist both LDCs and non-LDC low-income countries, providing aid and technical assistance under Economic Cooperation and Integration between Developing Countries (ECIDC) and other bilateral agreements. China, Kuwait, Qatar, Singapore, India, Thailand and some other non-OECD/DAC countries provide bilateral assistance independently—soft loans and technical assistance, but few monetary grants, if any, except in special cases. See

<http://unctad.org/en/pages/gds/Economic%20Cooperation%20and%20Integration%20among%20Developing%20Countries/Economic-Cooperation-and-Integration-among-Developing-Countries.aspx>.

Under multilateral assistance, concessionary financing (e.g. through the IDA, the World Bank's concessional loan window) is provided to the poorest 77 countries (including Lao PDR on blended terms, i.e. a combination of grants, soft loans and loans at not-so-soft interest rates). Eligibility is defined by the per capita income of the borrowing country.

Finally, under “other assistance”, various multi/bilateral organizations provide assistance to the LDCs through technical cooperation programmes for capacity building. The World Bank, IMF, UNDP, UNICEF, UN World Food Programme (WFP), UN Framework Convention on Climate Change (UNFCCC), UN Capital Development Fund (UNCDF) and World Meteorological Organization (WMO) are some of the organizations providing these. LDCs are also extended assistance in the form of financial support to participate in regional and international conventions, e.g. travel and subsistence allowance for LDC participation in the UN General Assembly or annual reviews of the Programme of Action for the LDC are met from multilateral donor funds. The contribution from LDCs for peacekeeping forces in troubled areas is discounted by about 90%. There is also a cap of 0.01% on the regular budget contribution from LDCs to the UN Organization. Finally, liberal scholarships are offered to students and government/university staff from these countries as part of support to human resource development and capacity building. It must, however, be noted that these are not fully exclusive of the multilateral/bilateral assistance packages mentioned above, though some items might be, such as student scholarships.

Source: UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, UNOHRLLS (2006).

Chapter 3

Promoting Human Capabilities

Education beyond the primary level, improved health and nutrition are fundamental for people to enhance their endowments—self-awareness, conscience, independent will and creative imagination. Education, health and nutrition are also entitlements. Lao PDR needs to take a “right-to-development” approach to raise public expenditure on education, health and nutrition on a sustained basis, not only to raise its human asset as required for smooth LDC graduation but also to expand the capabilities of its citizens to achieve development as freedom. Education, health and nutrition are interlinked: improving mothers’ education and health status also improves nutrition and children’s cognitive capacity. An integrated approach to policy and implementation for efficiency and synergies is essential. Donor support coordination is critical to align with the Government’s strategies.

Quality education and good health are prerequisites to achieving higher human development and for clearing the pathway for a country to graduate out of its LDC status.⁶⁴ There is ample evidence to suggest that investments in human capital (education) and health (including nutrition, and water and sanitation) lead to a potentially bright future in terms of sustained economic and human well-being. Education and health are critical for *all* and not limited to infants or children, as is conventionally believed. An emphasis on infant and child health is justified since good health and nutrition at early ages in life determine the physical and mental growth of people, which are essential conditions for learning, retention and learning application. The health status of adults is also important because the need for a healthy, skilled and productive labour force grows as the economy becomes more complex and sophisticated. A healthy population can also participate well in socio-political life to make them better engaged and responsible citizens.

This chapter expounds on education and health as they directly contribute to human development and human assets, as needed for smooth LDC graduation. Beyond this immediate instrumental role of education and health, they also expand human capabilities and freedom. This chapter focuses particularly

on: (i) all aspects of education and skill development; (ii) critical aspects of health, which include child and maternal health and communicable and non-communicable diseases; and (iii) nutrition. The normative framework of this chapter is the “right to development”⁶⁵ that drives the internationally agreed development goals, such as education for all, health for all and nutrition and food security for all, now enshrined in Agenda 2030 for Sustainable Development Goals (SDGs) to which world leaders, including those of Lao PDR, are committed.

Education

The focus of this section is both the quantity and quality of education in Lao PDR. In Chapter 1 it was noted that Lao PDR has made good progress in some aspects of education, such as primarily enrolment, but still lags far behind, especially in the quality dimension at all levels. A lack of adequate skills, in particular poor ability to comprehend due to deficiencies in the literacy and numeracy of the workforce, has been identified as a major obstacle for business. As reported in the World Bank’s *Lao Development Report 2014*, nearly half of the firms surveyed in Lao PDR mentioned that they had no or few applicants to an unskilled job, a much higher percentage than in neighbouring countries, indicating a serious structural problem, such as very low levels of literacy and numeracy. For example, in a Reading Assessment survey, post-secondary graduates in Lao PDR performed at about the same level as people in Vietnam who had only primary schooling.⁶⁶

Early Childhood Development and Education

Attention to early childhood development (ECD) assumes centrality because it provides the necessary exposure to children at a biologically appropriate age. It is the foundation on which education at all levels is built. Box 3.1 suggests that the growth of children begins early, and by 3-4 years of age they are biologically ready to learn, understand and mentally assimilate. In low-income developing countries there is also the critical requirement of balanced nutrition, which ECD programmes provide. In its absence, a child’s growth might be left wanting, and this is especially so among children of poor parents and/or children living in remote villages as they can ill afford, or do not have the knowledge of, certain necessities for children’s growth. ECD is thus an indispensable stepping stone for achieving higher human development.

ECD programmes, despite all their advantages, are not very popular in Lao PDR, especially in rural areas where people prefer to keep small children at home. The Ministry of Education and Sports (MOES) reports that only 39.2% of children aged 3-5 years were enrolled in an ECD programme in 2013/2014 nationwide. Though this may be an overestimate, there is no difference in the rate of enrolment between girls and boys (Figure 3.1).^{67,68} Enrolment of children aged 5 years was about 61%, which implies that parents are reluctant to send children younger than 5 years old outside their homes.

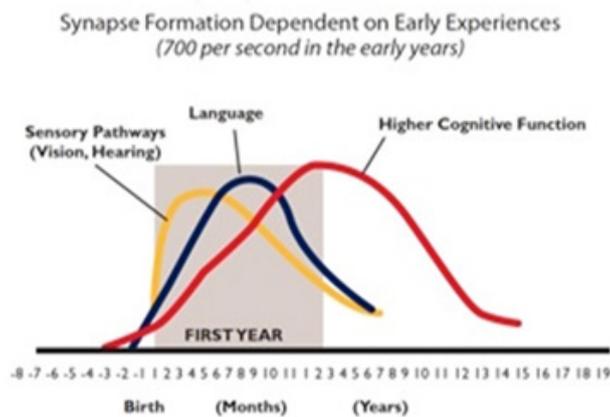
Although ECD enrolment has increased more than fourfold compared with a decade ago, there are large gaps in ECD enrolment across regions and income groups. LECS-5 data (for 2012-2013) reveal the following disparities:

- Rural–urban gaps: Pre-school enrolment among children aged 3-5 years in rural areas was only 14.7% while the same in urban areas was more than 50%. Some 60% of the children in urban areas attended pre-school the year before joining primary school, compared with only 19% in rural areas.

Box 3.1: The First 28 Days in a Child's Life

The first 28 days in a child's life are the most critical. If s/he survives these, the dangers of mortality progressively decrease. They stabilize after a child is 5 years old. Brain formation, development of cognitive abilities and muscle/bone formation are all completed in the early years of a person's life. The figure below suggests that the sensory, vision, hearing, language, and, thereafter, higher cognitive abilities all begin to develop early, and by age 5 most of these are fully developed. It is thus paramount to provide good health and impart basic life skills at an early age in a person's life.

Human Brain Development



Source: US Government Action Plan for Children in Adversity, Washington, D.C. (2012); Nelson (2000).

- Income-related gaps: Pre-school attendance was 47% in the richest 25% of households compared with only 11% in the poorest 25% of households.

MOES data for 2013/2014 suggest that the drop-out and repetition rates in Grade 1 were substantially higher, at 15% and 10% respectively, than those in the subsequent grades. In high probability this would be due to a lack of readiness of the children, which ECD might have provided. A good number of children—especially in rural areas (and from ethnic communities, as they are predominantly rural)—enter primary school with low levels of readiness as they have not attended ECD programmes. They are prone to failing and repeating.

There are demand-side constraints to low ECD attendance—poverty, low/no awareness among parents about the value of ECD, and traditional beliefs. A campaign needs to be carried out to generate demand for education, similar to the one that is proposed for Community-led Total Sanitation (CLTS),⁶⁹ to overcome this problem.

But there are supply-side constraints which need urgent attention. For example, there are not enough kindergarten and pre-school facilities, particularly in rural areas. According to 2013/2014 MOES data, the total number of pre-primary schools in the country was 2,125, which had 5,486 classrooms (including both private facilities, which charge fees, and public facilities). This was some four times less than the number of primary schools. Field observations in Sekong suggested that there were only 19 kindergartens and pre-school classes in that province in November 2015.

The (low) quality of most ECD programmes is another constraining factor. Most teachers (facilitators) at this level have extremely limited or no opportunity to acquire the requisite training. In effect, they have difficulties in engaging young children of different age groups and abilities to learn through play and talk. The lack of essential play materials (e.g. toys, blackboards, chalk) and supplies for nutrition, among other things, is another limiting factor facing the ECD programmes.

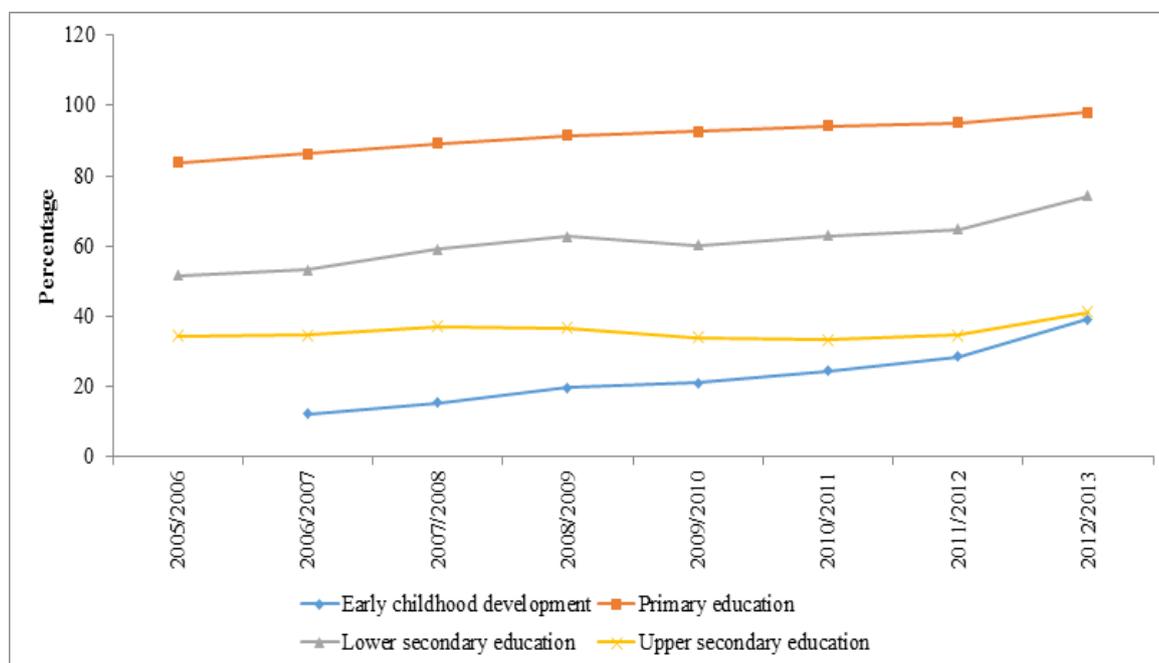
Primary Education

Net enrolment at the primary school level is near universal (Figure 3.1). It increased from around 84% in 2005-2006 to about 98% in 2013-14, a rise of 14 percentage points in the last decade. The variation in enrolment across provinces is also very small. Enrolment at the aggregate level, thus, does not appear to be an issue. However, there are significant gaps in enrolment rates across income groups, rural and urban areas, and ethnic groups (Table 3.1).

The drop-out rate follows the same pattern by economic status, location and ethnic group. The problem is more acute in remote and rural areas where various ethnic groups dwell. Some 23% of schools are incomplete; these are mainly located in Saravane, Sekong and Phongsaly—all hinterland provinces—where both enrolment and drop-out rates are high.⁷⁰ Drop-out and repetition numbers in Lao PDR compare rather unfavourably with the much lower repetition rates in Vietnam and Cambodia.⁷¹

On the positive side, there are as many primary schools as the number of villages, or more. Incomplete schools, an important constraint on children attending schools, have also decreased, from about 44.2% to 22.8% between 2005/2006 and 2013/2014.⁷² These factors are likely to have contributed to the increase in overall enrolment.

Figure 3.1: Trends in school enrolment by level



Source: EMIS, Ministry of Education and Sports, Vientiane.

Demand-side issues seem to be a major factor affecting performance. Some of these are:

- When they enter schools, children are over-aged owing to late entry and grade repetition, and they find themselves out of place;
- Unfamiliarity with the educational systems for first-generation learners and those who did not attend ECD contributes to low enrolment and high drop-out rates (see Box 3.2);
- The poor and certain ethnic groups (Sino-Tibetan, Mon-Khmer), dwell in large numbers in hilly and remote areas, where not only are schools more distant from homes but other infrastructure and transport are also scant;
- Withdrawal of students from schools at harvest time is common. Some teachers also withdraw, worsening the situation further. This happens everywhere, but particularly in areas where paddy is grown as it requires more hands to harvest;
- Language is a major barrier for children who (and whose parents) do not speak Phasa Lao as their first language (Box 3.3). Although a number of primary school teachers of ethnic origin have been trained and recruited over time, their capacity and quality are still wanting.⁷⁴

Supply-side factors also interact with demand-side issues, such as the low quality of training of teachers, and hence poor teaching is a disincentive. EMIS databases report that approximately one quarter of the primary schools operate multi-grade classes because of small student numbers and limited facilities.⁷⁴ To make matters worse, a majority of the teachers are not trained in handling multi-grade teaching.⁷⁵ Approximately, one in two primary school teachers had never attended college, with more in rural and remote areas than in urban areas (EMIS Report 2013-2014).

In light of the above problems, EMIS reports that only three out of four primary school students completed school in 2013-2014. In relatively poorer districts, less than 50% of children completed primary school education.

Table 3.1: Enrolment in primary education stream (age 6-10), 2012/2013

	Enrolment	Drop-out
Quintile 1 (poorest)	77.96	1.48
Quintile 2	85.45	1.16
Quintile 3	88.80	0.88
Quintile 4	89.35	0.88
Quintile 5 (richest)	95.95	0.18
All	85.70	1.05
<hr/>		
Urban	94.32	1.15
Rural	83.80	0.56
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Urban	94.32	0.56
Rural with road access	83.96	1.21
Rural without road access	82.20	0.70

Lao-Tai	91.50	0.92
Mon-Khmer	81.34	1.13
Sino-Tibetan	68.15	1.56
Hmong-Mien	83.00	1.10
Vientiane Capital	98.10	0.40
North	85.70	1.10
Central	87.20	1.00
South	80.76	1.40

Source: LECS-5.

Box 3.2: Primary School Drop-outs – Multivariate Analysis and a Case Study

Multivariate analysis

Econometric analysis was conducted using data from LECS-5 for 2012/2013 to determine the key variants of primary school attendance and drop-out. The results suggest that over-aged children, household income and household size are the three important determinants of children's attendance, in addition to their parents' education. Since children still have to pay despite schools being free, and also since social assistance programmes are still limited, it is quite common that poorer households or households with a high economic dependency rate are more likely to withdraw their children from school at earlier ages. LECS-5 estimates that expenditure on education forms about 1.3% of the total household expenditure of an average household. For those households with children in the age group 6-17 years, expenditure on education is 6.6% of the total household expenditure.

Econometric analysis also suggests that shocks could adversely affect the retention of children in schools.

A Case Study

Kham and Choumsy live in Dak Le village, Dakchung district, Sekong province. They have six children. The first two children discontinued schooling before completing primary education. The main reasons the older children dropped out were the parents' inability to afford schooling expenses, these children being required to look after the younger ones and these children earning some extra income. The children who dropped out now support the household by undertaking activities on the farm and also look after their two youngest siblings, who have not yet begun schooling. The other two children, who are currently attending primary school, are also forced to skip classes during the periods when upland rice is planted, because they need to accompany their parents and older siblings to their farm, which is located far from their village. They are away for several weeks, resulting in discontinuity in their schooling. When they return they find that they are unable to catch up with the others and they now wonder how long they will be able to last in school.

A reason for Kham's household having to travel to a distantly located farm is that Kham's old village has been relocated and the farm is in the vicinity of the old village. There is little arable land near the new village, and so it is not easy to acquire another piece of land there for farming. Additionally, Kham, being a poor small landholder, suffers from rice insufficiency in the lean months, forcing him to withdraw his older children from school to help the family obtain extra income.

Source: Internal calculations in NERI and fieldwork in Sekong

Box 3.3: The Language Issue – A Field Observation

Interviews conducted with the Training School Principal in a village in Kham district, Xiengkhuang province, suggested that language barriers are turning out to be constraining factors in teaching children in the school. They are the reason for low enrolment and high drop-out rates. Key issues regarding language barriers are summarized as follows.

The capacities of learners from ethnic communities a priori seem to be quite low compared with other students who do not belong to the ethnic groups. This observation, however, might be superficial. In reality, a major obstacle in the teaching and training of children belonging to the ethnic groups could be language. In fact, the curriculum is all written in Phasa Lao, which the students from ethnic communities understand only with difficulty.

Many of the (ethnic) teachers in these schools make less than the required effort to speak Phasa Lao due to their lack of familiarity with it. On the other hand, teachers who speak only Phasa Lao in classes attended fully by ethnic students have a communication barrier with the students. Consequently, students belonging to the ethnic groups do not improve their Lao language comprehension as they should.

The low levels of learning reduce the willingness of parents to send their children to attend the school. This cycle could continue in the next generation as well.

Source: Field observations in Xiengkhuang province, November 2015

Secondary Education

The gross enrolment rate in lower secondary education was 74.4% in 2013/2014 (an increase from 51.7% in 2005/2006), but this was some 20-plus percentage points below that at the primary school level. The gross upper secondary school enrolment rate, 41.3%, was some 30 percentage points lower than the rate for lower secondary enrolment (Figure 3.1). The transition rate from primary to lower secondary education has not improved much over the years, moving from 85% in 2007/2008 to 89.4% in 2013/2014.

The transition from lower secondary level to higher secondary level was about 85% in 2013/2014. Of every 100 students who join the primary school in Grade 1, only about 41-42 are able to survive until Grade 10, and this rate is much lower among the poor and ethnic communities, compared with the rich and Lao-Tai. The enrolment rate at the lower secondary school level was 80% in the most affluent (quintile) group compared with 45% in the poorest, according to LECS-5; similarly, the enrolment rate among the Sino-Tibetan group was 28% compared with 72% among the Lao-Tai.⁷⁶

There is also a large variation in secondary school enrolment across provinces. In 2013/2014, the COV across provinces for lower secondary enrolment was 19%, while it was 25% for upper secondary school enrolment.

There is also great unevenness in the quality of schooling across locations in terms of numbers of teachers per school (or students), qualifications of the teachers and teaching materials available. There is a low demand for schooling among poor households, households residing in remote areas and some ethnic groups.⁷⁷

Teacher Training

Data on primary teachers' qualifications are not readily available, but they are for secondary teachers' qualifications. Teachers should be qualified to teach secondary levels if they are trained up to at least 11+3 years and/or have attended a teacher training course. This is not a norm in Lao PDR. EMIS data show that approximately 14% of the secondary teachers do not have these standard qualifications. Additionally, a large number of teachers lack continuous professional development. Finally, in terms of teaching methods, rote learning/teaching tends to be the most common approach; teachers are unable to teach using interactive methods due to the lack of teaching/learning materials or, in a few cases, the sheer (large) numbers of students.

The postings of teachers across the country have also been found to be inequitable and inefficient. There is an oversupply of teachers in some (urban) locations but a shortage in others (mainly rural). The fact remains that high-quality trained teachers do not wish to go to rural areas. Thus, many secondary schools in remote areas and where ethnic communities dwell have inadequate numbers of teachers per school. There is also an unbalanced distribution of teachers across different teaching subjects.

Non-formal Education (Adult Literacy)

The Government has formulated programmes to reach out to people who have completed primary education but have dropped out of the lower secondary stream in selected provinces. Teachers appointed for this purpose are known as “mobile teachers”, since they work part time and travel to different locations to conduct classes. Since no evaluation is yet available, some field interviews conducted in Xiengkhuang and Sekong provinces are the basis of the following observations:⁷⁸

- The mobile teacher programme operates for only six months a year, and classes are only held on weekends. This small exposure does not allow teachers to cover all the important topics necessary for improving the life skills and meaningful learning prospects for the learners;
- Class attendance is uncertain, depending upon the availability of the participants;
- Payment for the (mobile) teachers is insufficient to encourage them to undertake regular visits to conduct classes;
- There is a shortage of trained teachers and teaching–learning materials. Many mobile teachers have not developed their teaching notes to meet the requirements of adult literacy classes.

Vocational Education

The number of Technical and Vocational Education and Training (TVET) institutions has increased in the past decade, especially in major cities. In 2013-2014, there were 37 vocational and technical schools. Only about one third of these institutes provide technical skills courses at the *diploma* level; the rest still provide *certificates* (which are lower than diplomas). Many TVET institutions are incomplete in one or another aspect, meaning that their facilities are inadequate and/or the teaching staff are less than fully qualified or are fewer than is required. Many provinces do not have any TVET institution.

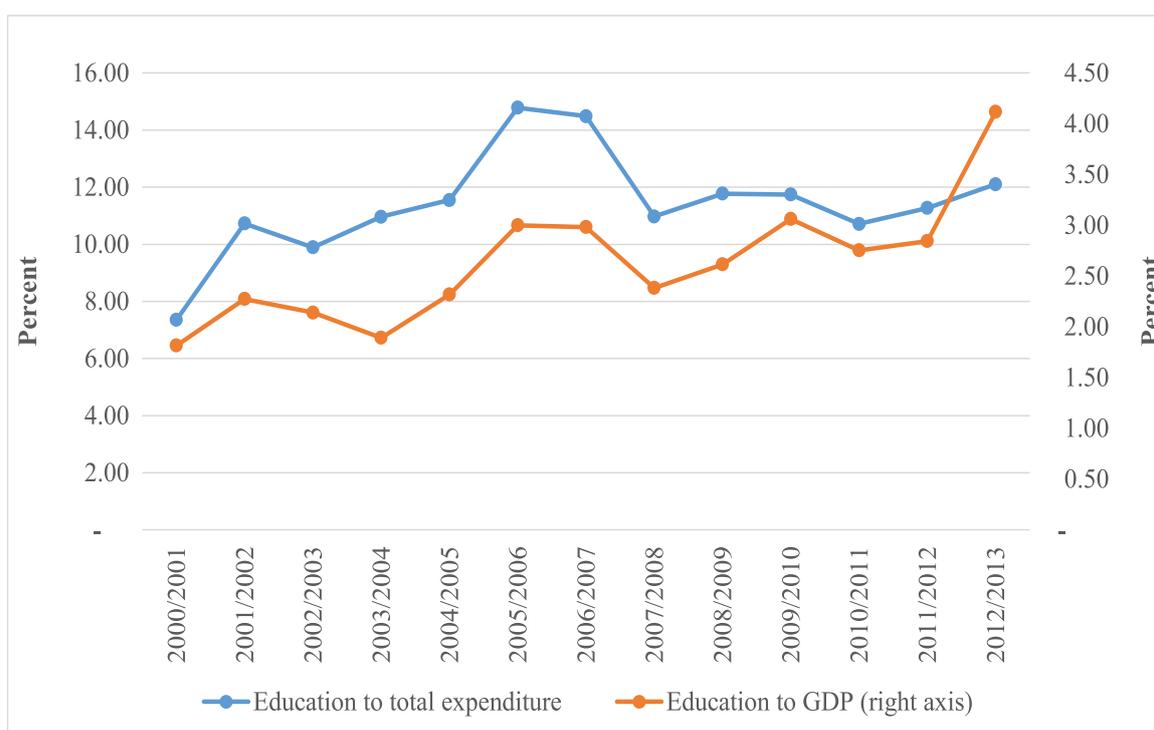
There is a severe shortage of skilled workers in the country. The students enrolled in TVET are largely

found pursuing vocations in accounting, management and hospitality rather than in engineering and technical courses where a large skill gap or unmet demand seems to exist. Additionally, while admissions to TVET have risen in recent years, the perception about TVET remains low because of poor quality education and hands-on training owing to shortages of qualified and trained teachers, weak curricula, shortages of teaching and learning materials, and lack of other facilities.

Public Expenditure on Education

The share of public spending on education in total public spending in Lao PDR has increased from 7.4% in 2000/2001 to 12.2% in 2013/2014. As a share of GDP, it increased from 1.9% in 2000/2001 to about 4% in 2012/2013 (including DP contributions, see Figure 3.2). Although public spending on education has shown a rising trend, it is lower than in some neighbouring countries. For example, Vietnam spent about 6.3% of its GDP or 21% of total public expenditure on education in 2012. The Republic of Korea and Malaysia spend even more. It is important to raise allocations to this sector and rationalize them to maximize on the outcomes.

Figure 3.2: Public expenditure on education as share of state budget and GDP



Source: Calculated using data from Ministry of Finance and Lao Statistics Bureau

Improving Educational Attainment: Some Actionable Proposals

Overall, Lao PDR’s education system is still inadequate in both quantity and quality despite some reasonable progress. Poor quality and disparities (across regions and among ethnic groups as well as income class) are the main concerns that need urgent attention, keeping in view Lao’s LDC graduation aspiration and commitments to the SDGs. The Government of Lao PDR has set goals and targets in the 8th Five-Year NSEDP for better public transport, financial supports, training and appointment

of more teachers, supplying quality teaching materials, etc. The Government's strategies need to be complemented with intense community-based efforts to publicize the advantages of education and dispel outdated beliefs.

The findings reported in Box 3.2 have important policy implications. As experience in other countries shows, conditional cash transfers linked to school attendance can be an important policy instrument for raising the educational attainment of children from poor households. Also, as far as possible, ECD, primary and secondary education should be declared to be a "right" and should come under the purview of the Government, since a large majority of the population are unable to afford the fees levied in private schools.

As Box 3.3 shows, there are problems arising from both students and teachers from ethnic communities not being fluent in Phasa Lao. There is also a problem with teaching materials. Furthermore, ethnic origin teachers require more rigorous training in bilingual skills. The Government has a policy to increase the numbers of people from ethnic communities in the teacher training programmes; this includes some financial incentives, which may need to be supplemented with government-provided accommodation facilities.

The language issue requires resolution on a priority basis in order to address a much deeper structural problem that extends beyond skills mismatching, such as the low comprehension abilities of the Lao workforce. More *functional schooling facilities* need to be set up with trained bilingual teachers and teaching materials to control the drop-out rate and repetitions, and to improve literacy and numeracy levels.

Keeping in view the fact that English is the link language in ASEAN, the teaching of English would be advantageous. Students should be introduced to a foreign language at secondary school level. As mentioned in Chapter 2, international collaboration with the ASEAN countries should help improve the quality of English in Lao PDR.

TVET needs a complete overhaul in terms of its quality and linkages with demand. It would be wise to integrate vocational training with the high school (especially lower secondary) curricula.

Education is not a "stand-alone" activity; it has links with health, agriculture, extension services and infrastructure/transport, among other areas. Hence, *delivering a comprehensive development package* becomes paramount. Since important retarding factors are poverty, ethnicity and remoteness, extra efforts are needed to reach out to the sections of the population characterized by these factors, and to deliver such a package.

Health

*Maternal and Neonatal Child Health*⁷⁹

Table 3.2 presents key outcome indicators with regard to infant and child mortality: neonatal mortality rate (NMR), infant mortality rate (IMR) and under-5 mortality rate (U5MR). At the turn of the century the country's performance on these indicators was poor, but significant progress was made through the decade until 2011. The MDG U5MR target has most likely been achieved, but the IMR target might appear a bit challenging, though it probably will be achieved.⁸⁰ The key lies in reducing the NMR, as an

infant's vulnerability is highest in its first 28 days of life (the NMR period).

There is a large inter-provincial variation in each of the three indicators. The COV across provinces is 37% for the NMR, 75% for the IMR and 88% for the U5MR for 2010/2011. There is also a high association between the three series (the correlation coefficient exceeds 0.85). The (inter-provincial) variation begins initially at the NMR stage, and then the gap keeps widening with the age of the child. This implies that, if action were initiated to save and keep children healthy at a very early age (i.e. the first month) and the effort is continued, the outcomes would be more desirable. Among the worst performing provinces in respect of infant/child mortality are Phongsaly, Huaphanh, Khammuane and Saravanne. At least three of these have large ethnic populations, suggesting that these populations are neither reaching out to modern health services or being reached out to by them. More infants and children die in rural areas, among ethnic groups and in poorer households (Table 3.3).

Table 3.2: Neonatal mortality rate, infant mortality rate and under-5 mortality rate

Year/indicator	Neonatal mortality rate (NMR)	Infant mortality rate (IMR)	Under-5 mortality rate (U5MR)
2001	52	116	146
2003	53	104	131
2005	46	91	115
2007	42	87	106
2009	34	75	88
2011	32	68	79
2015 (target)	-	45	70

Source: MDG Progress Report for Lao PDR 2013.

Note: Surveys were conducted in 1995, 2005 and 2010/2011. For all other years, forecasts are made.

Table 3.3: Neonatal mortality rate, infant mortality rate and under-5 mortality rate by broad region, wealth quartile and ethnic group, 2010/2011

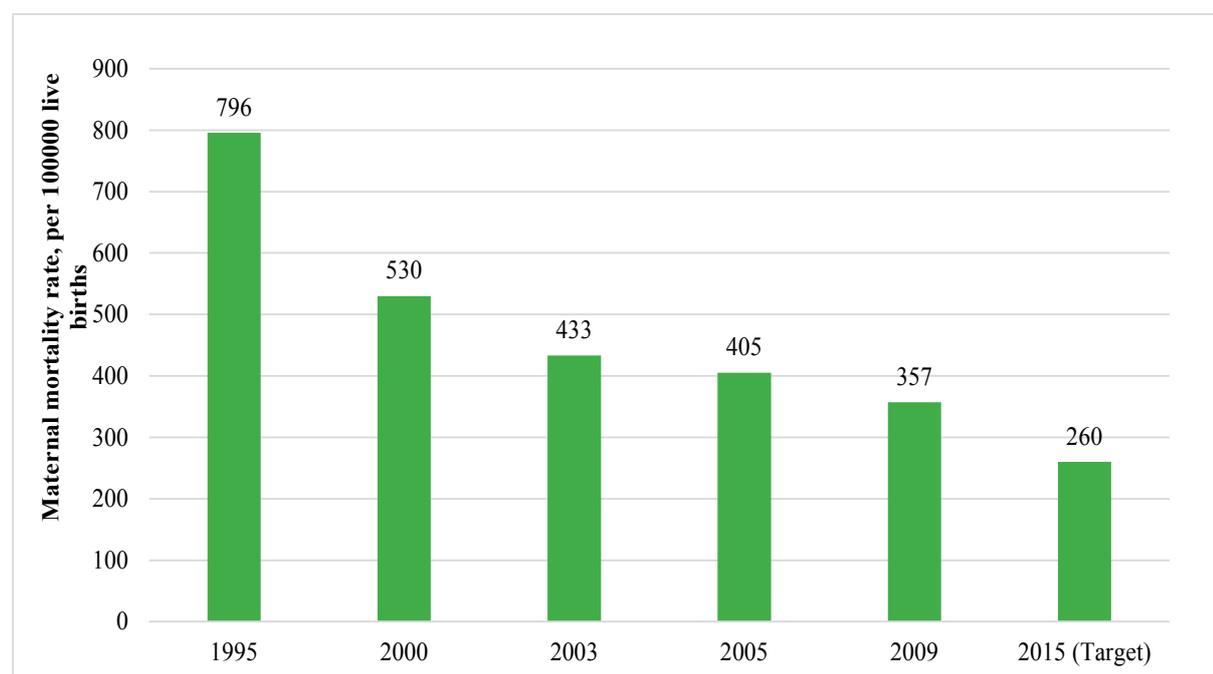
Year	Neonatal mortality rate (NMR)	Infant mortality rate (IMR)	Under-5 mortality rate (U5MR)
By location:			
North	48	86	104
Central	26	63	73
South	36	88	101
Urban	22	39	45
Rural	39	85	100
Rural with road	39	82	94
Rural without road	39	108	136
By Wealth Index quartile:			

First (poorest)	40	95	120
Second	47	98	109
Third	43	77	85
Fourth	17	47	53
Fifth (richest)	18	27	33
By ethnic group:			
Lao-Tai	32	70	76
Mon-Khmer	43	88	108
Hmong-Mien	27	58	74
Sino-Tibetan	62	131	160

Source: LSIS 2011/2012.

Figure 3.3 suggests that the maternal mortality rate (MMR) has fallen dramatically, but is still high to the extent that the MDG/NSEDP target seems distant. Reducing MMR is complicated in the sense that in complex cases the delivery has to take place in a hospital setting where there is capability and equipment to conduct operations and blood transfusion. While almost all health centres are able to perform *normal* deliveries, complex cases are referred to district hospitals, but only about 12-15% of these have the capability and equipment to perform these operations. In reality, some 40% of deliveries take place without a trained health attendant; hospital is a far cry from the usual circumstance of delivery.⁸¹

Figure 3.3: Maternal mortality rate



Source: MDG Progress Report for Lao PDR 2013.

Note: Surveys were conducted in 1996, 2000, 2006 and 2011/2012. For all other years, forecasts are made. WHO has made its own forecasts and calculations, which are not presented here; instead, national sources are relied upon.

As of now, there are some DP funds available for maternal and neonatal child health (MNCH) services to cover antenatal care, including travel to the health centres. However, large gaps still remain in covering the vast terrain in the interior.⁸²

Improving Health Status: Some Key Issues

- While all the districts have more than one health centre (Appendix 3.2), they do not necessarily offer quality services. One statistic suggests that only 5% of the health staff in public service have a bachelor's degree or higher.⁸³ Most of them do not have staff other than trained nurses, affecting the quality of services provided.
- Different DPs provide equipment made by various (foreign) companies, rendering it difficult to effectively service them. Thus it is not uncommon to find dysfunctional equipment.
- Basic drugs are available, which are free if supported by DPs but otherwise for a price, but nothing beyond basic drugs is available.
- There are about 8,600 villages in Lao PDR and some 12% of them are not connected by any road. Furthermore, only earthen/dirt roads (not navigable by vehicles year round) connect most villages. More than half of the provinces have a mountainous terrain, making travel difficult even if there are roads connecting the villages. Public transport is poor throughout the country, making people dependent on private facilities, which are also not regular, not frequent and often expensive. In a 24-village case study in 12 districts in six provinces, carried out by NERI, road connectivity was as follows: 29.1% of households reported access to paved roads, 50% to year-round dirt roads, 12.5% to seasonal dirt roads and 8.3% to no roads.⁸⁴ Improving road condition and connectivity, and providing reasonable public transportation are critically important for improving access to health centres and hence health status in rural communities (Box 3.4; Box 3.5).

Box 3.4: Health Services in Xiengkhuang and Sekong – Report of a Field Trip

Healthcare services in Xiengkhuang province (North) are relatively more satisfactory than those in many other Northern provinces. In Sekong (South), however, they are not up to standard and also do not compare with those in other Southern provinces. While coverage of the health network per se is quite high, most centres provide little more than village drug kits. Interviews with user communities suggested that much improvement is still needed in terms of the quality of health services in all governmental facilities—health centres, district hospitals and even the provincial hospital. Additionally, there are significant populations living in rural and/or remote areas with none or only poor quality roads. Connectivity from these villages to health centres or hospitals is not easy. The lack of public transportation between villages and health facilities makes matters worse, since most people do not have private vehicles and find it too expensive to hire others' vehicles. *A typical example quoted in the field (Sekong) was: How difficult and dangerous would it be to take a pregnant woman for delivery to a health centre, even 3-5 km away, if she is to be carried on the back of a motorcycle on a hilly/earthen road?*

The number of permanent staff members at different levels in the public health system has increased over time but the qualified health staff—particularly trained physicians—are largely concentrated in larger hospitals. Furthermore, the ratio of health staff to the population in areas where there are many poor families is relatively low. Thus, while the number of staff members in health centres is supposed to be 5-7, in reality, as seen in the hinterlands, there are only 2-3, who might have some qualifications but have no hands-on skills. They only provide health-promotion services and not curative services.

Source: Field observations in 10 villages and Kum Ban centres, November 2015.

- The Government has a programme for building model health villages.⁸⁵ Presently, there are 5,492 model health villages, i.e. 64.8% of all villages across the country. This scheme has been implemented since the 6th Five-Year NSEDP, i.e. more than a decade ago. The project aims to develop model healthy villages in order to improve the health of the village community, in particular of mothers and children, through enhanced community participation in primary health care.⁸⁶ There is a need for an in-depth evaluation of the scheme and to design strategies to make the model village scheme more effective.
- The ADB has funded Northern provinces, while other DPs have funded elsewhere. However, its impact in terms of outcomes seems minimal in the sense that the Northern provinces have so far shown only small improvements in the health outcome indicators. A priori, it seems that the scheme in isolation might not be effective unless it is integrated with other education and income-generating schemes and schemes that expose the target groups to the external environment and also empower them to avail themselves of the scheme.
- Safe water reaches some 70% of the population and safe sanitation is accessed by some 59%. Open defecation results in contamination of the underground waters as well as the top layers of the earth.
- Many development programmes work in conjunction with other programmes most efficiently. However, most programmes or schemes are implemented in isolation; as a result, synergies are few, if any. Inter-agency/departmental coordination will increase efficiency and produce better outcomes. Convergence of schemes at the district level would be most efficient.

Improving Personnel Quality: Some Actionable Proposals

There is a shortage of personnel at the local level in rural areas. Therefore, one option is to recruit and train health workers from the same villages/areas—as they understand the language and cultures—to conduct health promotion campaigns such as WASH (water, sanitation and hygiene) and advise people on the advantages of using modern health facilities. Students studying medical or paramedical subjects could also be placed in rural areas as a part of their training, and they could also selectively take up the curative component of such campaigns. Such a proposal was a part of the 7th Five-Year NSEDP (2011-2015) and continues in the 8th Five-Year NSEDP (2016-2020).

Medical education at all levels (for physicians, surgeons, nurses, midwives and other health workers) needs to become more professional and rigorous with added practical/hands-on training (and field training, preferably in rural areas). This would require resources—this is the area in which the DPs could contribute to building a high-quality medical university in Lao PDR and medical colleges in each province rather than providing scholarships for students to study medicine abroad. This might appear to be a medium- to long-term proposal, but it requires to be undertaken, and the benefits from it would be incremental.

Having trained professionals accept postings in rural areas is a challenge not only in Lao PDR but also in most developing countries and developed ones alike.⁸⁷ There are no easy solutions to this challenge. However, approaches that might work include providing special incentives to professionals to work in the deep interior. For example, if a young medical graduate completes a 3-5 year posting in a rural area, s/he could be offered priority admission to a postgraduate degree programme (in Lao PDR or abroad),

a posting of his/her choice, or consideration for additional/early promotion, among other options. In addition, they could be provided with proper stand-alone housing (not simply dormitory accommodation) where they are posted, in addition to transport (a vehicle).

Box 3.5: Resettling Villages for Better Connectivity

In developed countries and fast developing/emerging economies, urbanization has provided the major impetus for improved health and education among the populace. The logic of this is that in larger settlements it is relatively easy to provide health, education and other services such as piped water and sanitation, since each of these services and facilities requires a critical minimum population mass. In Lao PDR, the Government has had a plan for some time to “group” villages so that each settlement could become relatively large and the numbers of settlements fewer, thereby permitting more effective targeting of services such as health, education, welfare, etc. The scheme has not been very successful to date, but should be pursued with greater urgency and with more attention to local sensibilities, as they are the very cause of low success.

Source: 4th National Human Development Report of Lao PDR.

Box 3.6: Maternal and Infant Health in Xiengkhuang and Sekong – Report of a Field Trip

One great concern with regard to health in two provinces visited, Xiengkhuang and Sekong, is maternal and infant mortality. Since 2011, there have been several externally funded projects implemented to reduce the MMR and IMR/U5MR.

Positives

The most productive project has been that under Decree Number 273/PM, which provides for free delivery and treatment of children below 5 years of age. This project provides pregnant women with a free care visit, necessary vaccinations, food allowances and transportation costs for travel to the health centres/other facilities. In some areas in Sekong province the authorities give 10 kg of rice to pregnant women visiting the health facility. The village communities informed the researchers that, with the implementation of this project, the number of poor people coming to health centres has increased.

Negatives

Even though the service is free, some people, particularly those from ethnic communities, still refrain from going to the health centres owing to their unfamiliarity with the potential benefits, language barriers, culture and cultural practices, engagement during the farming season and lack of affordability of services (in some cases, payments are involved).

Children’s immunization also remains a problem in both provinces among the ethnic communities. Even though these services are provided free of charge to the eligible beneficiaries in all the villages, utilization of the services remains low for various reasons, including the perceived side effects of vaccination (e.g. fever in the 1-2 days after vaccination), language barriers, poor knowledge of the benefits, perceived risks of immunization (e.g. pain/swelling from injections) and the quality and timing of the services offered. The health workers themselves admit that they often lack the communication skills to engage families from different ethnic groups to bring their children for immunization. In Sekong, where there are a number of different ethnic minorities, only 43% of children have received vaccinations to date.

Source: Field observations in 10 villages and Kum Ban centres, November 2015

Box 3.7: Data for Monitoring and Evaluation – Lao PDR and Cambodia Experiences

Regular monitoring and evaluation are critical for evidence-based programmes and strategies. This is highly important in sectors where there are many players, especially those funded by DPs. Availability of reliable and disaggregated data at a reasonable frequency is vital for evaluating the cost effectiveness and performance efficiency of various schemes within an outcome- or results-based monitoring and evaluation framework.

A number of surveys of Lao PDR have been conducted from time to time, as availability of funds has allowed, including:

- The Multiple Indicator Cluster Surveys (MICS), conducted in 1996, 2000 and 2006, focusing on child-related indicators such as education, health, nutrition, water and sanitation, child development, child protection and HIV/AIDS. Some data on women's health were also collected;
- The Lao Reproductive Health Surveys (LRHS), conducted in 1995, 2000 and 2005, focusing on reproductive health, contraception and sexual behaviour of the population;
- Population and Housing Censuses, conducted in 1995, 2005 and 2015 (results pending). They contain information on demographics and key education and health indicators.

The MICS and LRHS were conducted at similar times but produced different national figures on the same indicators, creating anomalies. Thus, in order to maximize outcomes from government and DP resources and also generate a set of single and reliable national figures on social indicators, these surveys have now been discontinued and merged to create the Laos Social Indicator Survey (LSIS). LSIS is a household-based survey that applies the technical frameworks of the MICS and the Demographic Health Surveys (DHS). It aims to produce statistically sound and internationally comparable estimates on a range of health-related indicators. LSIS includes questions on water and sanitation, marriage and sexual behaviour, fertility, reproductive health, maternal mortality, child health, nutrition, education, child mortality, child development, child protection, HIV/AIDS and mass media. As of now, the LSIS reports the health outcomes every five years, and the Population Census every 10 years.

Data on inputs (expenditures) and outputs are reported department by department on an annual basis and, supposedly, published, and they are also put on the Health Information System (HIS) website, similarly to data on education. However, these are not published annually and the website is perennially out of order. While the system of reporting seems to be in order, its functioning is problematic and needs to become more efficient and transparent.

In Cambodia, since 2003, every village and commune (which are like Kum Bans) collects data on key socio-economic variables. The basic data points are the village and the commune depending on the variable, and the entry is made into the village or commune book by the village or commune chief. These data are then collated for the country with full disaggregation up to the province, district, commune and village levels, and uploaded onto a website. The dataset contains information on population, health, education, agriculture and other economic activities, land and assets, etc. They are invaluable for local level planning and monitoring. This programme was initially supported by the UNDP and others such as the Swedish International Development Cooperation Agency (Sida) have joined in (UNDP still partly supports it). Lao PDR also began such a data collection and collation process with UNDP support around 2002/2003, but it was discontinued. It requires restarting. It would be helpful for health planning and monitoring as well as planning in other sectors

Box 3.8: Harmonizing Donor Support

Lao PDR is still dependent on external support for the actual implementation of health services programmes (including for buildings, equipment, travel, and other things). Each externally funded project has a defined geographic limit, different delivery approach and different timeframe. These projects are initiated and completed at different times. All these factors result in disharmony across geographic regions.

First, it is essential to ensure DP coordination with regard to what is offered in terms of the form of equipment, delivery model and staff training. This matter should be taken up for discussion in the Sector Working Groups.

Second, the Government presently spends less than 1% of GDP on the health sector from the state exchequer, while the minimum requirement should be at least 2-3% in a country such as Lao PDR, which has a difficult terrain and where private services are beyond the reach of a large proportion of the population. A two- or threefold increase in public spending along with DP support (though the latter could gradually wane over time as government funds increase) should yield good outcomes.

Third, at present there is a subsidized health scheme that has extensive coverage but it is not universal, and the quantum of funds allocated per treatment incidence is small. Also, its scope changes with changes in DP funding. It is proposed that a comprehensive study be conducted to examine the present subsidies in health and propose options for increasing coverage and ensuring effective treatment.

Fourth, public-private partnership for delivery of health services can also be an option. Take the case of government health centre buildings that are neither fully equipped nor adequately staffed. These facilities may be rented out to private doctors/paramedics for the provision of services. The private operators could charge the clients approved fees. The Government could issue coupons with which the poor could access the services from these centres and the operators would cash the coupons at a government treasury or bank on a weekly or monthly basis. This approach is new and untried and should therefore be first adopted on a pilot basis before it is taken forward.

Nutrition

Nutrition is an integral component of the HAI. Chapters 1 and 2 discussed how improved nutrition could quickly improve the HAI value and move the country closer to graduating out of its LDC status.

Underweight children (under 5 years, or U5) constituted about 27% of all children in that age group in 2011/2012 (Table 3.4). The target is to reach 22% by 2015, which *should have been reached* as the rate of reduction in this index has been about 2% annually. The prevalence of stunting among children (owing to chronic malnutrition) was high, at almost 43-45%, demonstrating an actual *increase* on earlier estimates (from 2006 MICS). At this rate the 2015 target of 34% seems distant, though survey results are yet to come out.

Table 3.4: Nutritional status of children under 5, 2011/2012

	Underweight (%)	Stunting (%)	Wasting (%)
Male	26.7	45.7	6.4
Female	26.4	42.6	5.4
North	26.2	51.4	5.3
Central	23.1	38.1	5.4
South	34.7	46.6	7.9
Urban	16.1	27.4	5.4
Rural	29.3	48.6	6.1
Rural with road	29.0	47.8	6.1
Rural without road	31.6	53.8	5.7

Source: LSIS 2011/2012.

There are also high inequalities: there were far fewer stunted and underweight children in households in the richest wealth quintiles compared with those in the poorest quintiles, according to the LSIS of 2011/2012. Also, stunting of children was found to be more pronounced in rural areas and among ethnic communities living in remote mountainous areas than among the Lao-Tai communities living on the plains, which in a way is coterminous with the poverty and isolation status of the former (Table 3.4).

Malnutrition is not restricted to children alone: there is malnutrition among adults as well, including vulnerable groups such as pregnant and lactating women. Among women—measured by body mass index (BMI)—14.4% were of mild to severe low weight for their height.⁸⁸ This is a serious issue since low BMI among women is associated with a higher risk of giving birth to babies with a low birth weight. Intergenerational transfer of malnutrition is a distinct possibility: undernourished/weak mothers give birth to weak children, who, when less than adequately nourished, are chronically undernourished. This is a vicious circle. About 10.8% of infants were found to be of low birth weight in 2011-2012.

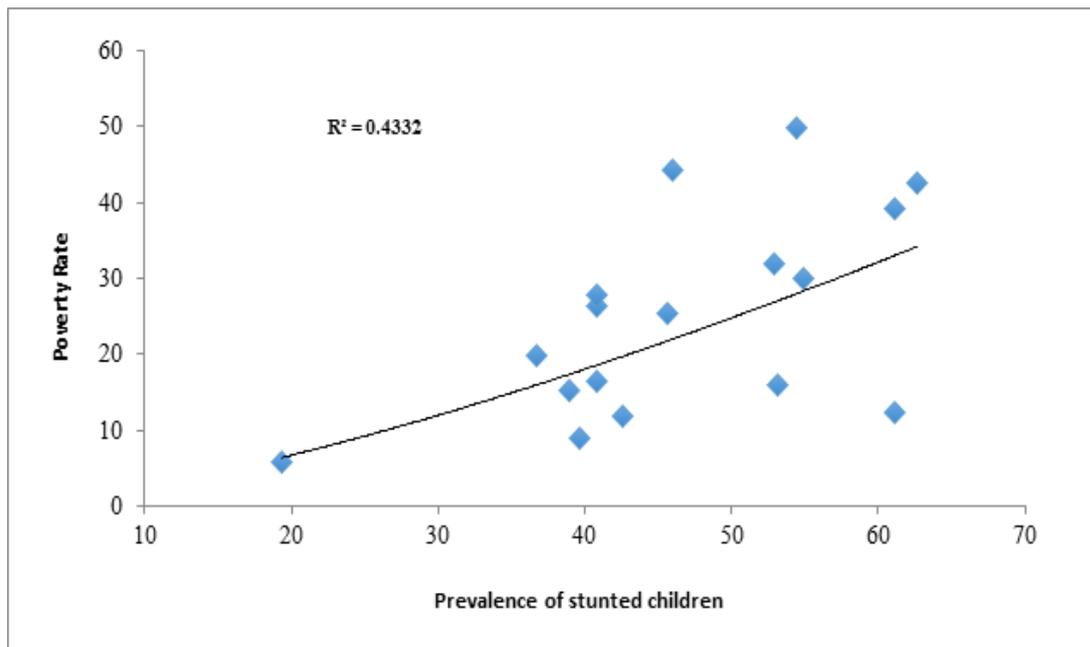
According to WHO standards and extant surveys, Lao PDR faces multiple health- and nutrition-related problems requiring urgent action. These include:

- Low incidence of breastfeeding: Only about 40% of children below six months of age are exclusively breastfed (Source: LSIS 2011/2012);
- Vitamin A deficiency: As many as 45% of children under 5 years and 23% of women aged 12-49 suffer from subclinical Vitamin A deficiency (Source: National Nutrition Strategy 2010-2015);⁸⁹
- Anaemia: About 41% of children under 5 years and 63.5% of children under 2 years of age suffer from anaemia (Source: National Nutrition Strategy 2010-2015);
- Iron Deficiency: About 22.5% of women aged 15-49 suffer from iron deficiency (Source: National Nutrition Strategy 2010-2015);
- Parasitic infestation: About 54% of children suffer from Soil Transmitted Helminthes (Source: National Nutrition Strategy 2010-2015);

- Lack of food security and diversification: About 20.1% of the population is food poor (Source: LECS 2012/2013).

Figure 3.4 plots the rates of poverty and stunting across provinces. The relationship between poverty rates and stunting is clearly positive, despite the fact that the data for the two series have been drawn from different sources and the samples also pertain to different years. Poverty is an important determinant of malnutrition.

Figure 3.4: Poverty rate (2012/2013) and stunting of children under 5 (2011/2012)



Source: Calculated from data on poverty in LECS-5 for 2012/2013 and data on stunting in LSIS 2011/2012.

Improving Nutrition: Some Actionable Proposals

Improving nutrition through ensuring food security and other measures cannot be the responsibility of a single agency or department: it requires effective collaboration and shared responsibilities among concerned agencies, including those in health, education, agriculture, environment, industry and commerce. The Government has established the National Committee for Nutrition through which efforts have been made towards promoting hygiene and disease prevention. It promotes “three clean” principles: drinking boiled water, eating cooked food and using hygienic latrines. Emphasis is also laid on promoting better eating habits among children, such as intake of a balanced diet—vegetables, fruit, meat, fish, carbohydrates and other foods—and also providing milk and food supplements to children at schools and in health centres and homes. Other efforts include distributing Vitamin A, de-worming medicines, iron and zinc for children and women in the reproductive health age group.

All the key areas of intervention are also listed in the Nutrition Strategy 2010-2015:

1. Discouraging the intake of unhealthy food;
2. Promoting the intake of a balanced diet (including all the required micronutrients); increasing breastfeeding for the first six months from 40% to full coverage;
3. Providing adequate nutrition to mothers and pregnant women (especially vitamins and iron pills);
4. Provision of safe water (from 70% to 100% ultimately), and sanitation (from 59% to near 100% ultimately);
5. Community and mothers' education, especially on nutrition and hygiene.

Efficient delivery remains an issue, and requires urgent attention. In this context, merging different programmes (joint programming) should help and also form synergies. A few examples illustrate the point:

- School feeding (nutrition) programmes should have the best impact if all children attend all the classes (school link);
- Iron and vitamin supplementation programmes for pregnant and lactating women should have the best impact if they regularly visit the health facilities or places where these are distributed (health link);
- People are more likely to drink safe water if adequate demonstrations are held with regard to the advantages (extension link);
- People are more likely to use latrines if adequate demonstrations are held and free kits are distributed (at least initially, where applicable), and people are also told how human waste can be converted into bio-manures with scientific treatment;⁹⁰
- Mothers are more likely to breastfeed their children for up to six months if health workers visit the communities to advise them (extension link);
- With increased land yield rates and incomes, people are more likely to travel for marketing, for which roads and transport are prerequisites. They are likely to adopt alternative food habits when they experience the taste of varieties of foods available outside their home environment (income, agricultural extension and travel/transport link);
- A large number of nutrition programmes are DP supported. Each DP/NGO has its own model of implementing the projects, and each has a limited geographic coverage and a different time-frame. Coordination between the DPs would help sustain nutrition programmes more efficiently (Box 3.8).

While resources are required for implementing schemes, which are often limited by lack of resources, not all solutions are cost intensive. A successful example of inexpensive water cleansing is presented in Box 3.9.

Box 3.9: Safe Drinking Water

Raw water from rivers and streams is consumed in many places. Many households filter it with a cloth or sieve, and store it in earthenware jars. The hygienic condition of the jars, however, is not known. Whether straining raw waters in different seasons is good enough is anyone's guess, given that the nature of contamination is different at different times of the year. One observation made among the hill-dwelling people is that the muddiness of the water is the only form of contamination recognized—bacteria or germs are not talked about.

Low- to very-low-cost technological solutions are now available to cleanse water. For example, if raw water in a polyethylene terephthalate (PET) container (e.g. a normal Coca Cola or Pepsi bottle) is kept in sunlight for 24 hours (48 hours in the case of cloudy skies), it is decontaminated through the solar radiation—ultraviolet rays kill the harmful microorganisms. Using alum or potassium permanganate is another inexpensive alternative.

Field extension workers need to be trained to spread information about this kind of easily available low technology, along with live demonstrations.

Source: <http://sodis.ch>.

Conclusion: Policy Implications

While Lao PDR has made notable progress in both health and education, there are many challenges yet to be addressed. Raising the quality of human capital among the populace and empowering people assumes centrality in the quest to improving human development (HAI value) and moving out of LDC status. Inequality and disparities in educational and health attainment across the regions and among ethnic communities are serious retarding factors. They correlate strongly with the inequalities in opportunities and services.

To address these problems, the Government of Lao PDR may wish to consider the following principles:

- Utilize the lessons learned from MDGs implementation and apply strategies to unfinished business, e.g. enhancing efforts to reach the goal of 100% access to safe drinking water and sanitation;
- Embrace a rights-based approach to education, health and nutrition following the internationally agreed development goals, especially Agenda 2030 for the SDGs;
- Adopt an integrated approach to designing policies and implementation strategies to maximize synergies among education, health and nutrition programmes, as emphasized in Agenda 2030 for the SDGs;
- Enhance inter-agency/departmental coordination for effective implementation and to minimize duplication and wastage;
- Facilitate donor coordination to align donor support with the Government's strategies and ensure the sustainability of externally funded projects;
- Establish a strong evidence base for results-oriented monitoring and evaluation.

The Government may also wish to prioritize the following actions in implementing the 8th NSEDP:

- Push hard to improve the sheer availability and spread of ECD facilities, placing emphasis on cognitive development in those facilities;
- Redesign primary level curricula with an emphasis on basic literacy and numeracy skills;
- Expand teacher training with a focus on numeracy, language and communications skills;
- Increase the number of lower secondary schools with integrated vocational training;
- Design incentive measures for trained teachers and health professionals to accept rural/remote area postings;
- Provide more equipped health centres; recruit and train personnel; place trained personnel in unreached/unserved areas;
- Improve road/other connectivity for better access to health centres;
- Design and implement conditional cash transfer programmes to encourage and enable the poor and disadvantaged groups to access education and health facilities;
- Improve the health sector M&E (make it similar to EMIS).

Appendix 3.1: Probit estimation (Children aged 6-15)

Variable	Coefficient (Enrolment) Model 1	Coefficient (Dropout) Model 2
Age	-0.024***	0.27***
Female	-0.111***	0.19***
Household size	-0.25***	-0.004
Lao-lum (Lao-lum=1, other=0)	0.23***	0.06
Log household income	0.005*	-0.30***
Land ownership (hectare)	0.0004	-0.0002
Age of household head	0.006***	-0.002
Gender of Household head (Female=1, Male=0)	0.07	0.13
Household head's education	0.04***	-0.02***
Urban (Urban=1, Rural=0)	0.29***	-0.36***
Distance to primary school	-0.02*	0.002
Distance to secondary school	-0.005*	0.01***
Household members being ill	-0.10*	0.18*
<i>Province Dummy</i>		
Phongsaly		
Louang-Namtha	-0.27*	0.17
Oudomxai	0.008	0.18
Bokeo	-0.28*	0.14
Louangphabang	-0.04	-0.15
Houaphan	0.09	0.05
Xaignabouli	-0.06	-0.25
Xiengkhouang	-0.20	0.32*
Vientiane	-0.03	0.11
Bolikhamxai	-0.11	0.34*
Savannakhet	-0.38**	0.47*
Salavan	-0.57***	0.58***
Xekong	-0.59***	0.49***
Champasak	-0.67***	0.39*
Attapu	0.02	-0.15
	-0.67***	0.69***
Constant	-0.40***	0.12
No of observation	9122	9122
Pseudo R square	0.18	0.32
P value	0.000	0.000

Note: Author's estimation using LECS 5 data

Appendix 3.2: The Status of Other Diseases

The number of consultation venues for HIV/AIDS and other STDs has expanded to 165 across the country (55 at the provincial level, 89 at the district level and 21 in health centres). HIV infection rates have reduced to targeted levels though there is no scope for complacency.

- The current rate of HIV infection among the general population is estimated at 0.3% (the NSEDP target for 2015 was < 1%).
- The rate of HIV infection among sex workers aged 15-49 is estimated at 1.2% (the target for 2015 was <5%).

Targets for prevention and treatment have, however, not yet been met:

- The proportion of sex workers using condoms is 92.5% (the target for 2015 was 95%).
- The proportion of adults and children infected with HIV being treated with anti-viral medicines is 53.4% (the target for 2105 was >90%).

These numbers, obtained from government sources, pertain to 2012; hence, the conclusions are somewhat dated.

The malaria control strategy seems fairly effective, resulting from the widespread use of bed nets by both adults and children. The National Bed Net Survey (2011/2012) found that 81% of children under 5 years of age slept under insecticide-treated bed nets and that 98% of children slept under one kind of bed net or another.⁹¹ The outbreak of malaria in 2011 in the five Southern provinces has, however, been a cause of concern. Given the fact that both water reservoirs and irrigation systems are increasing in number, the re-emergence of the epidemic is not a distant possibility. The matter is further complicated by the fact that drug-resistant strains are now appearing.

The first comprehensive tuberculosis survey was conducted in 2012. The results suggest that the prevalence of tuberculosis (i.e. existing cases) was 514/100,000 population in that year, while its incidence (new cases detected) was 204/100,000 population. The mortality rate from tuberculosis was 11/100,000 population. Trends in the prevalence of TB suggest that the MDG targets would be met in all probability, though these diseases have a tendency to reappear.

Appendix 3.3: Health Service Facilities

There have been notable advancements in extending primary health services to the larger populace in recent years, particularly in remote areas. In terms of numbers, in early 2015 there were some 985 health centres, most of which now offer basic maternity services. It is estimated that 840 of these are capable of rendering normal birth delivery services.

The country has 135 district hospitals, 20 of which are capable of conducting surgeries. Additionally, there are 17 provincial hospitals which are able to carry out general treatment service activities, have the capacity to carry out general and urgent surgeries, and can receive (emergency) patient transfers from district hospitals for birth delivery by operation (i.e. caesarean). Some provincial hospitals have improved their services and are capable of offering services of the quality prevalent in regional or central hospitals. These facilities are expected to continue improving to levels matching regional hospitals in the coming years. There are five central hospitals, three specialized treatment centres and 16 private hospitals, which operate in accordance with stated regulations (10 are in Vientiane Capital and six in the provinces; this, though, shows a large urban/regional bias).

The Government has a strong focus on building model health villages. Presently there are 5,492 model health villages—some 64.8% of all villages in the country.

Some 85% of children below 1 year old were vaccinated in 2013. The share of pregnant women receiving adequate prenatal medical check-ups was 46% in 2014. Though this falls short of the target of 69%, it is nonetheless an improvement on earlier years. The average life expectancy has improved from 40 years in 1960 to 74 in 2012.

Sources: Government of Lao PDR (GOL) (2011), *National Health Statistic Report 2009-2010*, Ministry of Health; GOL (2015), *Report on 2013-2014 Plan Implementation*, Department of Health Care, Ministry of Health; GOL (2015), *National Socio-Economic Development Plan 2016-2020*, MPI, Vientiane; GOL (2015), *Report on Health Village Establishment 2013-2014*, Department of Hygiene and Health Promotion, Ministry of Health; GOL (2015), *Report on 2013-2014 Plan Implementation on HIV/AIDS and STD Control and Prevention*.

Chapter 4

Strengthening the Productive Base

Lao PDR's EVI value lags behind its GNI and HAI values most in terms of meeting the graduation threshold. Strengthening the country's productive capacity is the key to reducing its economic vulnerability. Increasing farm yields and diversifying the economy in high-value-added non-farm activities should help meet at least five of the seven component indicators in the EVI. In addition to reducing economic vulnerability, decentralized industrialization to create productive jobs, spread skills and improve people's incomes across the North–South span and interior of the country will reduce spatial disparities and deprivations among ethnic groups. Preservation of natural resources is central to minimizing susceptibility to natural disasters.

As noted in Chapter 2, Lao PDR falls short of the graduation threshold the most on its EVI value, where the gap with the country's GNI and HAI value is the largest. Lao PDR's relative position vis-à-vis other LDCs is also worse on the EVI than the other two indices. There are 16 LDCs with lower EVI values than Lao PDR's, whereas there are 12 LDCs with a higher HAI value and 15 LDCs with a higher GNI.

There is a close correspondence between the EVI and GNI as both are primarily related to the economy. Although Lao PDR's GNI has almost reached the graduation threshold, it can easily slip due to the country's high economic vulnerability. Therefore, for the sake of both the EVI itself as an independent graduation criterion and its direct influence on GNI, Lao PDR needs to devote extra efforts to reduce its EVI value.

The EVI is composed of eight sub-indices (see Introduction, Box 0.1). Close examination of these sub-indices suggests that, in the context of Lao PDR, they can be meaningfully grouped into four:

- A strong and thriving agricultural sector;
- A modernizing non-farm economy;

- Improved infrastructure;
- Protection of vulnerable populations against natural or other forms of shock and disaster.

If the agricultural sector is vibrant and resilient and the non-farm economy is diverse, sub-indices relating to merchandise export concentration, share of agriculture, forestry and fisheries in GDP, and export instability and instability in agricultural production will be fully or at least partially met. Improved infrastructure will go a long way in addressing the sub-indices relating to remoteness and small population size.⁹² Improved infrastructure can also help reduce the impact of natural disasters on human lives. The sub-index “share of population in low-elevated coastal zones” does not apply to Lao PDR as the country has no sea coast. If the economy grows in an inclusive manner and undergoes structural transformation with adequate attention paid to the human-development-related issues, Lao PDR should smoothly graduate out of its LDC status and progress to become a thriving country within the AEC.

Thus, this chapter reflects on Lao PDR’s current strategies to reduce its economic vulnerability. In particular it will look at Lao PDR’s approaches to strengthening its economic base through improving agricultural productivity, diversifying its industrial activities and reducing its exposure to natural disaster.

Agricultural Development

Lao PDR’s agriculture is characterized by low labour productivity and yield rates.⁹³ This section examines some of the key factors behind Lao agriculture’s low productivity with a view to suggesting strategic interventions, based on experiences in other countries.

Land Size and Parcels

For any modernization of agriculture—which takes place through the application of irrigation, use of high yielding variety (HYV) seeds and fertilisers, etc.—farms must be of a critical minimum size. Excessive land fragmentation is detrimental to any modernization effort since every technology is subject to some economy of scale.

Land holdings in Lao PDR’s agricultural sector are generally small, with an average size of about 2.4 ha (Table 4.1). Making the situation worse, these holdings are fragmented with each land holding consisting of some 2.7 parcels on average (up from 2.1 parcels a decade ago, suggesting that fragmentation is rising). Each land parcel is about 0.99 ha, but the average might not present the full picture, as some 20% of land holdings in 2010-2011 were fragmented into four or more parcels. Furthermore, these parcels are not contiguously located, making the use of modern farming methods almost impossible. Put succinctly, it is difficult to raise labour productivity unless these tiny parcels are consolidated. If the land holdings in general become larger, it should help accelerate agricultural modernization.

Table 4.1: Land size statistics, 2010-2011

Land holdings	Northern Region	Central Region	Southern Region	Lao PDR
Average landholding size (ha)	2.3	2.6	2.3	2.4
Average parcels/holdings per owner (no.)	3.1	2.5	2.4	2.7
Average parcel size (ha)	0.72	1.05	0.97	0.9
Holdings with 1 parcel (%)	12.2	16.6	17.7	15.2
Holdings with 2-3 parcels (%)	55.2	70	70.6	64.7
Holdings with 4-5 parcels (%)	24.5	11.1	9.8	15.8
Holdings with 6+ parcels (%)	8.1	2.3	1.9	4.3
Total	100	100	100	100

Source: Lao Census of Agriculture 2010/2011.

Box 4.2 presents a few approaches practised in other countries. It must be pointed out that Lao PDR, being a heterogeneous country in terms of its topology, might require a range of different approaches simultaneously implemented in a staggered manner, gradually over a period of time. It would be best to initiate pilot programmes to examine the challenges in implementation. Lao PDR has a National Land Management Authority that undertakes land titling and keeps land records, along with other activities, but rationalization of land parcels or consolidation of fragmented agricultural plots are not a part of its mandate, which needs revisiting.

Box 4.1: Land Consolidation – Some International Experiences

Land consolidation has been recognized for more than 150 years as necessary to justify large investments (e.g. in irrigation), raise productivity and make farmers' livelihoods more viable. The first official land consolidation policies date back to 1847, enacted by the British colonial administration in Bombay Province, now in India. Throughout the 1950s and 1960s, Belgium, Chile, Egypt, India, Iraq, Japan, Lebanon, Mexico and Syria, among other countries, formally adopted land consolidation laws.

Each country has a different history and agro-ecology of its land; hence, the extent of land consolidation, methods of land consolidation and degree of success of these policies have varied. The following examples illustrate the approaches and experiences of different countries.

- Refusal by cadastral authorities to register agricultural land plots if they are smaller than a minimum permitted size. Thus, if a land plot is subdivided into two or more (whether for reasons relating to inheritance or otherwise), the legal records will have entries only of those plots that have at least a minimum size, while smaller fragments would be merged with recognized contiguous plots (India).
- Merging very small plots with unused state-owned lands, which are then reorganized and distributed to the very small plot owners and other landless people (India).
- Land consolidation in the spirit of land reorganization, so that irrigation waters could reach those lands. Land is first acquired and then redistributed after its reorganization (not necessarily in the same sizes as earlier), so that all land plots would benefit from surface flows (Republic of Korea).
- If farmers' land plots become too small because of land acquisition for non-agricultural or other developmental purposes, the following options are applied (China, South Asia): (a) compensation with land in other locations; (b) employment (unskilled work) on development projects; and (c) provision of training and easy loans/grants for off-farm activities.

Source: Cambodia NHDR 2007.

A more recent and practical approach, driven not by the Government (like those presented in Box 4.1) but by farmers themselves, has been observed in parts of China, India and Cambodia, where farmers share resources such as hiring the *services of* tractors or irrigation equipment to overcome the economic constraint of being unable to use modern technology on tiny land plots. In effect they are “dividing” an indivisible resource, (e.g. an irrigation pump or a tractor) by paying for the service they receive on their respective plots instead of buying the equipment.

Forming farmers’ groups assumes importance here. Since forming farmers’ groups in Lao PDR is part of the Government’s agricultural policy, such a practice, if rapidly promoted, could help raise farm productivity and land yield rates.⁹⁴ The policy in Lao PDR is to encourage farmers’ associations, but these associations are largely ad hoc (see Box 4.6). Further strengthening and widening the scope of the farmers’ associations should assume primacy in Lao PDR.

Irrigation

While all of Lao PDR is well endowed with high rainfall exceeding 1,800 mm/year, the area under controlled irrigation is less than 20% of the net paddy area sown (Table 4.2, Column 2).⁹⁵ Limited controlled irrigation is one of the reasons for a relatively low yield rate; in its absence, the High Yielding Variety (HYV) seeds do not yield very much.⁹⁶ Table 4.3 shows that some 60% farmers reported irrigation as a constraint to expanding or intensifying agricultural activities; more in the central region, the rice bowl of the country.

Table 4.2: Percentage of paddy area irrigated

Province	Paddy area irrigated (%)
Phongsaly	30.6
Luangnamtha	34.3
Oudomxay	20.6
Bokeo	34.8
Luangprabang	21.1
Huaphanh	35.6
Xayabury	38.4
Vientiane Capital	28.9
Xiengkhuang	39.5
Vientiane Province	37.9
Borikhamxay	16.6
Khammuane	9.7
Savannakhet	8.1
Saravane	12.1
Sekong	22.8
Champasack	8.6
Attapeu	7.8
Lao PDR	19.4

Source: Lao Agricultural Census, 2010/2011.

Table 4.3: Percentage of farmers reporting irrigation as a major constraint

Region	Farmers reporting irrigation as a major constraint (%)
North	48.7
Central	64.2
South	70.9
Rural with road	60.0
Rural without road	53.5
Lowland	66.8
Upland	49.6
Plateau	62.4
Mixed lands	53.6
Lao PDR	58.9

Source: Lao Agricultural Census, 2010/2011.

The following are among the reasons for low irrigation levels:

- In much of the upland areas, the (small) plots and land parcels are scattered in a manner where reaching waters is not always easy using the conventional surface irrigation methods (and canals) – the most common method of irrigation.
- There has been excessive focus on constructing large catchment reservoirs. Table 4.4 shows that only 7.5% of the villages are served by pump irrigation.⁹⁷ In certain terrains or land distribution patterns, large reservoirs are wasteful as they are not efficient in distributing water.
- Less than the required attention has been paid to the irrigation sector until now.

There are many methods to irrigate lands depending upon the source(s) of water, the terrain and the size of the area to be irrigated (and land distribution). At times, an additional factor—such as the crops grown—is also brought into the equation.⁹⁸ Lao PDR requires a combination of water control and irrigation systems most suited to each terrain in the country. Small and micro irrigation systems along with groundwater irrigation seem more suitable, especially for the uplands.⁹⁹ More effort should be made to tap the potential of small and micro irrigation schemes (depending upon the watershed) and the potential of using underground water through bore wells, rather than constructing more, large water-impounding projects. In areas relatively poorly endowed with groundwater, an option is to dig percolation tanks to trap water for percolating down into the earth. This enriches the groundwater resources which could then be harnessed through small pumps powered by 3-5 horsepower motors.¹⁰⁰ It is also to be noted that small/micro irrigation projects have few, if any, ecological effects.

Authorities in the country have already prepared detailed mapping of the hydrology of the country; however, it is not known whether this includes groundwater resources. This mapping should help in drawing up a combination of optimal methods for irrigation.

A key challenge is DP harmonizing. Presently, the DP community provides most of the investments for developing irrigation schemes. Each DP has its own approach in the area/project that it has served/

funded. Donor fund harmonization is needed for developing a “sector approach” rather than a “project approach”.

The success of irrigation in countries where small farms dominate lies in forming effective water-user associations. They are expected to make decisions on water distribution (including quantities and timings), avoiding wastage, repairs, payments, collection of dues and penalties, etc. As mentioned previously in relation to land consolidation, the farmer’s associations need to be strengthened and made permanent. Trained community development workers can make important contributions in this regard.

Table 4.4: Percentage of villages with major types of irrigation facilities

Region/village type/land type	Permanent weir (%)	Reservoir (%)	Pump scheme (%)	Gates and dykes (%)	Temporary weir (%)	Gabion (%)
Northern	25.3	2.4	1.6	3.5	47.9	10.6
Central	11.6	7.5	10.9	3.1	16.8	4.9
Southern	7.6	1.5	14	1.8	11.6	2.2
Lao PDR	16.7	4.1	7.5	3	29.3	6.8
Rural with roads	18.6	4.8	7.7	3.2	30.1	7.1
Rural without roads	8.0	0.7	6.4	2.1	25.4	5.7
Lowland	10.7	6.4	18.5	2.9	14.8	2.2
Upland	15.6	1.7	0.5	2.6	34.4	8.7
Plateau	28	4.7	2.5	4.1	42.3	10.8
Mixed lands	10.7	7.1	3.6	n.a.	14.3	n.a.

Source: Lao Agricultural Census, 2010/2011 (Analysis by the Ministry of Agriculture, Vientiane).

Note: Numbers in this table are not intended to add to 100 since they represent the percentage of total villages served by a facility.

Finances for Agriculture: Crop Loans

Farming, like any other business, requires credit for fixed capital (equipment etc.) and working capital (seeds, fertiliser/manure, labour and/or machine time—seasonal crop loans). In addition, they need credit for living expenses (subsistence) if they do not have enough savings from the past season(s)—a special feature of a small-farm agriculture. In many developing countries, two types of credit are offered to farmers from the formal sector or state-owned specialized institutions: term loans to improve the capital base and crop loans to meet seasonal requirements. Additionally, microfinance institutions give loans to the *poor* to support their immediate needs as well as to help them start small non-farm businesses. State-owned specialized financial institutions for the agricultural sector usually give loans at subsidized rates.

As in many developing countries, the conventional banking sector in Lao PDR normally shies away from lending to small farm agriculture. Loans to agriculture are considered risky since not many farmers have clear cadastral papers (no collateral), farmers depend on the vagaries of nature and have no control over markets, subsistence forms of agriculture make little distinction between business and household expenditures, and each of the farm operations (hence, the loan sizes) are too small for the banks to make

profits.¹⁰¹ The problem is illustrated below.

- The Agricultural Promotion Bank offers loans for business investment and major personal expenses such as purchase of vehicles (cars, motorbikes), hospitalization, education, marriage, purchase of household or office appliances, etc.¹⁰² Note that there is no mention of *crop loans* on this list. Moreover, one of the conditions for extending loans is that the borrower has a title to his/her land, which a large number of Lao farmers, especially the small ones and those in the hinterland, do not have.
- The ACLEDA, which has a network of 14 branches, offers credit to small businesses but not necessarily to agricultural operations, and especially not crop loans. This bank, too, requires land title deeds in order to approve loans.¹⁰³
- The Nayoby Bank, having branches in seven provinces and 49 service units, provides credit to farmers in the 64 districts identified as the poorest.¹⁰⁴ It offers loans to support commercial agriculture (plantation and livestock) and forestry, cottage industry (including agro-processing), handicrafts and services in the rural areas. Its clients are individual farmers (including the ethnic peoples), who are mainly located in rural remote areas. The bank releases loans directly to farmers listed on the *poor families' listing*. The rates of annual interest on the loans, 3-7%, are lower than elsewhere. There is, however, no explicit mention of crop loans, nor are the loans meant for all farmers.
- Microcredit is much talked about and a number of international DPs and NGOs offer loans under this umbrella. The annual rate of interest is about 18%. However, microcredit is *not* a crop loan. It is a loan suitable for a short duration for a small business with high turnover or small assets, but not for financing seasonal working capital for crops.

All sources—other than the Nayoby Bank, which offers only small amounts to select groups—are reluctant to offer loans to small farmers or farmers who do not have cadastral papers (land title deeds). It is not surprising that all sources combined meet only a small portion of agriculture's financing requirements. Most farmers source loans from private moneylenders for both term requirements and seasonal requirements at annual interest rates exceeding 30%.

To address the issue, an immediate step could be to expand the scope of the Nayoby Bank to cover the whole country and all farmers, and have an extra special focus on seasonal agricultural (crop) loans. Rapidly expanding the land titling programme should support this process.

Finances for Agriculture: Crop Insurance

To reduce risks that farmers face, some developing countries have introduced crop insurance. They target two variables: yield and price. If the yield rate or price falls below a critical minimum, the insurers provide financial aid to the farmers.

As of now, there is no crop insurance in Lao PDR. The Indian experience is among the relatively more successful ones in Asian developing countries (see Box 4.2). Authorities in Lao PDR, if they wish to promulgate a crop insurance scheme, will have to conduct a number of studies on its feasibility, initial coverage and operational details.

Box 4.2: Agricultural Insurance – Experiences in India

Agriculture in India is highly susceptible to risks such as droughts and floods. It is necessary to protect farmers from natural calamities and ensure their credit eligibility in the next season in order to stabilize farmers' incomes. Two critical components of a farmer's income are yield and price. The agricultural insurance scheme in India targets these two components through a single insurance policy so that the insured farmer can get a guaranteed income. The coverage is for a crop season.

The scheme provides income protection to the insured farmers by insuring production and market risks, that is, average yield multiplied by the expected price. If the actual income is less than the guaranteed income, the insured farmers are compensated to the extent of the shortfall. Initially, the scheme covered only wheat and rice, but was later extended to other crops as well.

The premium rates vary from 1.5% to 3.5% of the sum insured for cereal crops, while for horticultural and commercial crops, actuarial rates are charged. Small farmers are entitled to a subsidy of 50% on the premium charged and the subsidy is borne equally by the company and the Government. The subsidy is to be phased out over a period of five years.

The company operates on the basis of an "area approach", by which areas are defined for each notified crop in the event of widespread calamity (such as hailstorms, landslides, cyclones and floods). Under the scheme, each local unit of the Government is required to identify "homogenous areas" for purposes of yield rates and also determine deviations within them that are considered "normal". If the yields/incomes fall short of the margin, the compensation is paid.

Source: Adapted from Vyas and Singh (2006)

Farm Extension Services

Agricultural extension is a service provided for the application of scientific research and new knowledge to agricultural practices through farmer education. It encompasses a wide range of communication and learning activities carried out by extension workers (experts) in agriculture and its allied activities. Scientific knowledge is as critical as any other inputs and in some countries farmers are willing to pay for it or there are proposals to charge for such extension services.¹⁰⁵

Farm extension services have now acquired a new dimension: they are not limited to farmers being advised (in a one-way manner) but also extend to *farmers seeking answers to specific problems* that they face from the extension workers (two-way dialogue).¹⁰⁶ In this sense, the extension workers *also learn* from the farmers. Extension services differ from one country (or time) to another. For example, in India the extension workers also distribute samples of hybrid variety seeds and fertilisers (about 1 kg each) free of cost, which is meant as both demonstration and subsidy.

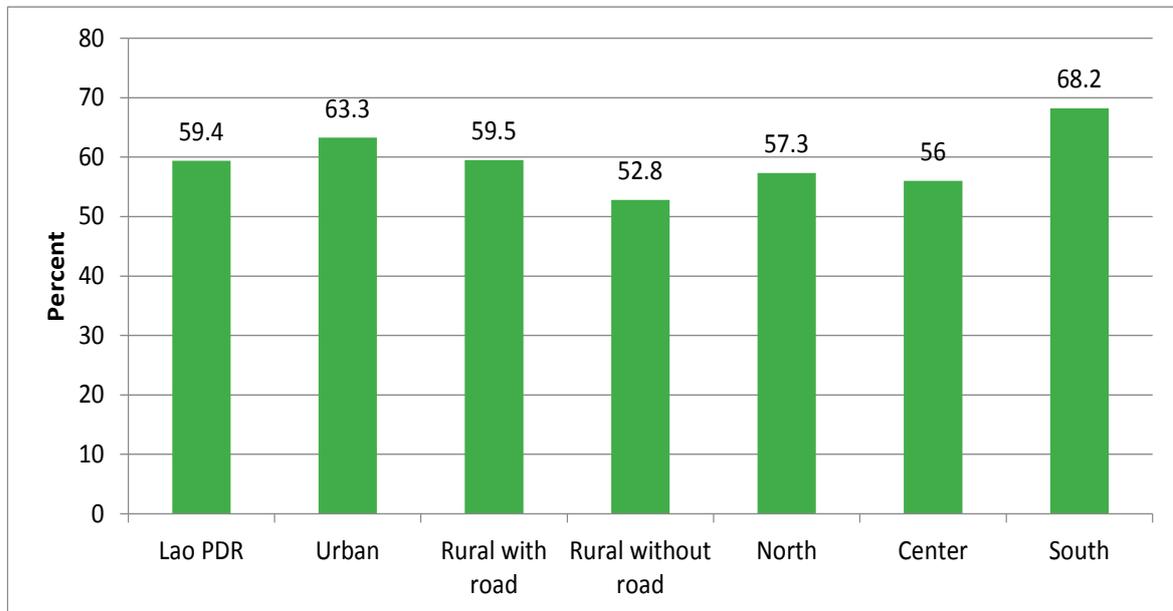
In Lao PDR the apex agency that determines farm technical needs is the National Agriculture and Forestry Research Institute (NAFRI), a research and extension institution affiliated with the Ministry of Agriculture. Provinces and the districts have their own extension departments to draw up the exact "knowledge packages" about crop agriculture and livestock, based on the local topologies. At the village level there are volunteers trained to do the necessary job. This is similar to the well-known training and visit (T&V) system where lead farmers are chosen to provide the necessary training and demonstration to others. However, unlike the T&V system, there are no demonstration plots to actually demonstrate the impact of the newer technologies, nor are free samples distributed unless they are available under some

DP- or NGO-led initiative.

The challenges presently being faced in terms of effective farm extension services in Lao PDR and the possible responses to them are as follows:

- Owing to a paucity of resources, the Government depends upon DP support for agricultural extension-related activities. Since DP resources are mostly project based rather than sector based, each extension project becomes unique in the area where the project is operating. In effect, the country has a large number of independently operated extension (and other farming-facilitation) systems, each having a separate training and information mechanism on cropping patterns, pest control, water management and all that goes with agricultural development. This spectrum of extension systems might not augur well for forming a national extension policy, as effective coordination at the national level is not possible. In addition, each project has a limited life (2-5 years, maximum). It is an arduous task, but these systems would require some harmonization in cooperation with the DPs.

Figure 4.1: Percentage of Villages Visited by Extension Workers, 2012/2013



Source: LECS-5.

- Agricultural extension services are extended to no more than 55-60% of farmers as per the LECS-5 data (Figure 4.1). However, this too might be an overestimate, since the Agricultural Census of 2010/2011 shows a significantly smaller proportion, 18%.¹⁰⁷ The Government will need to expand the geographic scope of the extension services. To undertake this, while trained personnel *are* available in the country, a proper costing and resource allocation on a regular basis—which is not done presently—is paramount.
- Extension work in certain upland areas is made more difficult because of the terrain and insufficient roads. Extension workers and even volunteers find it difficult to reach out to certain hamlets. The Government has a programme to connect the entire hinterland with roads, even if they are not all-weather roads. These should help the workers reach out to these areas.

- Certain ethnic groups are difficult to reach out to, since they speak a language different from Phasa Lao. Efforts to recruit bilingual extension workers will be required to reach out to these communities.
- Lao PDR has experimented with “joining/combining” villages to make each settlement larger and the total number of settlements in the country smaller. In principle, this is a progressive step, but when brought together, the ethnic communities find it difficult to mix, communicate with one another or become active members of farmers’ or other associations, mainly due to language barriers. Two- or three-language policies have been tried in other countries; they could be tried in Lao PDR as well. Effort must be made to co-opt leaders from ethnic communities into the village (and district) leadership and make extra efforts to bring them into the mainstream.
- The Lao Agricultural Census of 2010/2011 shows that some 18% of the cultivated land is under swidden (slash-and-burn) cultivation, more in the uplands and villages without roads than elsewhere. The Government has tried hard to eradicate this low productivity and ecologically harmful practice, but the success has been limited.¹⁰⁸ The reasons for this are: these areas are remote/hilly and not easily reached, people inhabiting them are not necessarily Lao speaking, and their community customs and practices—of agriculture and life—are quite different from those of people living on the plains. It is not always easy to effectively address these issues. Perhaps anthropological research (and KAP studies) may assist understanding of hitherto unknown practices.

Box 4.3: Some Innovations that can be Promoted Through Extension

The Farming Systems Approach

An important component of agricultural extension is popularizing a farming systems approach. A farming system is defined as a collection of individual farm systems that have broadly similar resource bases, enterprise patterns, household livelihoods and constraints, and for which similar development strategies and interventions would be appropriate. Depending on the scale of the analysis, a farming system can encompass a few dozen or many millions of households.

The classification of the farming systems is based on the following criteria:

- Available natural resource base, including water, land, grazing areas and forest; climate, of which altitude is one important determinant; landscape, including slope; farm size, tenure and organization;
- Dominant pattern of farm activities and household livelihoods, including field crops, livestock, trees, aquaculture, hunting and gathering, processing and off-farm activities; and taking into account the main technologies used, which determine the intensity of production and integration of crops, livestock and other activities.

A farming systems approach proposes to make optimal use of the available resources for year-round activities in a sustainable manner. In Lao PDR, e.g. in the lowlands, the resources are fertile: humid soil, water, some forest, non-timber forest produce and fish. In this system, it is possible to harvest 2-3 crops, use domesticated animals for draft power, produce meat, eggs, and (maybe) milk and also obtain some fish catch.

Systematic Rice Intensification

The System of Rice Intensification (SRI) is an agro-ecological approach for increasing the productivity of irrigated rice by changing the management of plants, soil, water and nutrients. It entails:

- Transplanting single seedlings at the two-leaf stage (8-12 days);
- Planting seedlings at a distance of 25 cm or more in a square pattern;
- Keeping the soil moist and aerated;
- Applying fertiliser with compost only when necessary.

The SRI approach is based on four principles: early, quick and healthy plant establishment; reduced plant density; improved soil conditions through enrichment with organic matter; and reduced and controlled water application.

Adaptations are often undertaken to accommodate changing weather patterns, soil conditions, labour availability, water control, access to organic inputs and the decision of whether or not to practice fully organic agriculture. In addition to irrigated rice, the SRI principles have been applied to rain-fed rice and to other crops, showing increased productivity over the current planting practices. The benefits of SRI include: 20%-100% or more increased yields, up to a 90% reduction in the required seed, and up to 50% water saving.

Source: For a broad description of the farming systems approach, see www.fao.org/farmingsystems/description_en.htm.

For SRI, see SRI International Network and Resource Centre, Cornell University College of Agricultural and Life Sciences, <http://sri.cals.cornell.edu/aboutsri/origin/index.html>.

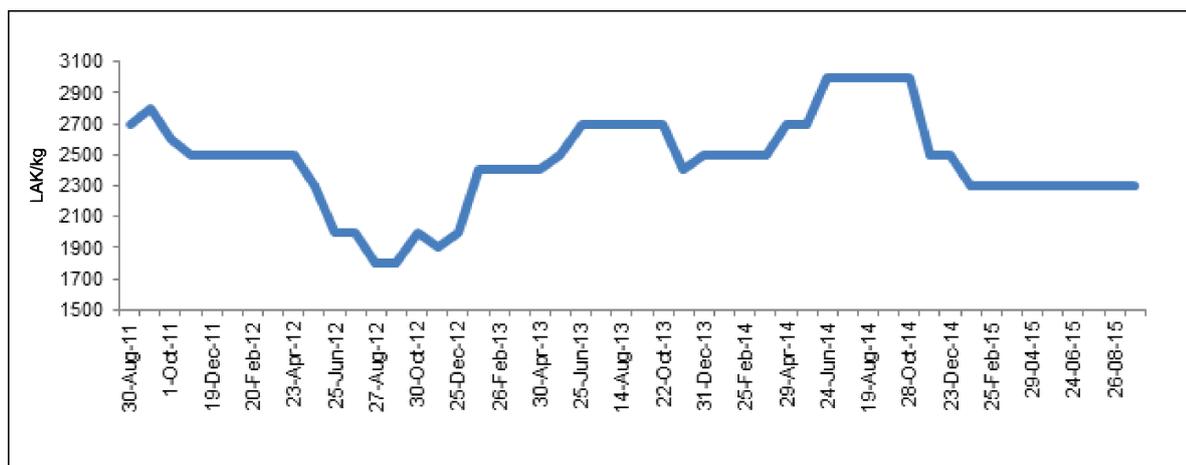
Markets and Prices

Farmers respond to (higher) prices for their crops by increasing production. The impact is seen after a time lag, as farmers take time to perceive benefits and crops take time to grow.¹⁰⁹ Providing support for stable (and predictable) prices is especially necessary in small-farmer-dominated developing countries, where the producers have little resilience against external shocks. All major food-producing countries, whether developing or developed, provide some form of price or other support to their farmers.

In Lao PDR, private traders dominate agricultural produce markets. There are no price controls or price stabilization measures to ensure a steady income to farmers. In the event of a steep fall in prices, farmers incur huge losses. Smaller farmers, who have virtually no financial resilience, can be financially ruined. Farmers (especially small farmers) are more vulnerable to price fluctuations as they cannot make mid-way corrections: each seasonal crop has a gestation time of at least four months, and perennial crops (e.g. rubber) have a gestation time of several years. Some price support should certainly help.

Along the Mekong River in provinces bordering Thailand, there is now surplus paddy available for the market (e.g. in Savannakhet). Additionally, there are a number of other seasonal as well as perennial crops grown for the market in the small landholding sector (e.g. maize, rubber and fruit trees). While there are some arrangements for stabilizing prices for selected crops grown under contract farming, a large part of the production is sold to traders and “middle-men”. Small farmers sell most of their produce at harvest time at low prices. Traders attempt to push prices down—much to the disadvantage of the farmers—when a large number of small farmers offer to sell their produce to a small number of buyers in a very short period of time. Figure 4.4 illustrates the paddy price fluctuation in Savannakhet, the rice-bowl province of Lao PDR.

Figure 4.2: Prices of paddy, monthly movements in Savannakhet Province, 2011-2015



Source: Ministry of Industry and Commerce; Government of Lao PDR.

Note: The figure shows the provincial average wholesale prices (not the farm gate prices), which smooths a lot of fluctuations; prices in the local markets have more spikes.

Figure 4.2 suggests at least two features: (i) the price of paddy has not moved up at all during the period 2011-2015 despite the annual consumer inflation in the range of 5-5.5%; (ii) there are monthly fluctuations of an unexplained kind in the sense that they do not show a dip in the harvest months. For example, in August 2012, the prices were the lowest while in August 2013 they were high, and again in June-October 2015 they were high, etc. These can be inconvenient to the farmers' financial calculations.

Different countries have used different options to ensure a steady supply of agricultural products and at the same time ensure steady income to the farmers. Some are briefly discussed below.

Grains and Commercial Crops

Individual farmers have no control over prices, but they can act collectively to obtain better prices for their crops. In this regard, farmers' organizations can help in augmenting the farmers' bargaining power. One approach that these organizations could follow is to establish collective grain storage facilities so that individual farmers can *borrow* against their grain rather than sell it in distress, and the produce is sold only when they get remunerative prices. Such experiments have been tried in Cambodia, and should be seriously examined for implementation here.¹¹⁰

Paddy

At least for paddy, farmers can make collective agreements with rice millers for a negotiated price, at which the farmers would be obliged to sell to the millers at harvest time (Box 4.4). Contracts with millers (rather than a single miller) renewed each season can uniformly benefit the farmers. Here, the farmers would not have to provide for storage before transportation to the rice mills. Success will depend upon the extent to which agreements can be reached with the rice milling industry. Such agreements have been reached in the North with the Chinese, implying that this is a real option.

Box 4.4: Marketing of Rice – Observation Made in Savannakhet

With the marketable surplus in paddy increasing—as is the case in Savannakhet—marketing assumes greater importance. Marketing the paddy produce at a reasonable price is a perennial problem that farmers face since contract farming accounts for the smallest portion of all paddy production and sale. As of now, farmers either sell their paddy directly to the millers or collectors (middlepersons) or have their paddy milled and sell milled rice to retailers. The prices fluctuate from one season/month to another, but there has been no real rise in the price during the last 4-5 years.

Farming is becoming more intense by the year, thereby weakening the natural fertility of the soils. Increased doses of fertilisers have therefore become essential, raising the cost of farming. At the same time, the farmers maintain that the electricity charges (for irrigation) are steep. With increasing costs but flat prices the farmers are the losers.

Some farmers who are not well off are leaving farming to either work across the border in Thailand or switch to alternative occupations, which does not augur well for the farming community.

Source: Discussions with villagers in Savannakhet, December 14, 2015

Horticulture and Fruits

In the case of horticulture and fruit products, a formal contractual arrangement between farmers and food processing companies can be mutually beneficial. Contracts with farmers can be varied. Farmers either enter into a contract directly with a company or set up large marketing cooperatives, and the cooperatives enter into a contract with the companies. However, a critical minimum volume of the produce has to be supplied to the company. For this, farmers must group together to ensure the minimum volume, otherwise the companies might not find it meaningful to enter into a contract. The farmers must possess facilities such as controlled irrigation, mechanized implements and so forth, to meet the production targets. Organizing and sustaining farmers' organizations is a precondition for success. In the case of Lao PDR, there is already a policy of forming farmers' groups, which needs strengthening (Box 4.5).

Box 4.5: Farmers' Organizations – Observation Made in Savannakhet

Over the past few years, the Government has encouraged farmers to group together and form organizations with a view to collectively tackling problems that they individually would find difficult to solve. This is essential because the farmers are small landholders and they are often unable to satisfactorily interface with markets on their own, particularly when agriculture is becoming commercialized. There are product groups (rice, vegetables, sugarcane, etc.) through which farmers can bargain for better prices, modern technology application groups that can ask for extension services, water-user groups that can decide irrigation water distribution, fees, and other water-related issues, and so on. While this is a good approach and is helpful to the farmers, there are two lacunae identified:

- Each of the groups is a loose federation of farmers formed annually (for which there is a membership fee). Not being registered under any law, they have no legal standing. Also, any farmer can leave or join at will. This gives the groups an ad hoc status, and keeps them more notional than real.
- These groups are topic specific and not integral farmers' associations, under whose umbrella all issues would fall.

It would be more meaningful if more formal integral farmers' associations, with legal standing, were formed. Within these, if farmers sold or left their land, their membership would be transferred to the new owner(s) of the land plot(s), thereby maintaining continuity of the land plots with the association. The associations should be able to address all issues, and not be restricted to one or two topics.

Source: Discussions with villagers in Savannakhet, December 14, 2015

All the stated recommendations require resources. A predominantly agricultural country such as Lao PDR needs to spend more from the budget on agriculture for better extension services, irrigation, marketing services and so on. While there is no universal norm as to how much the State should spend on the sector, the topology and the population spread in the country necessitates a great deal of extra expenditure. Recent data from the government budgets, however, suggest that there has been a secular fall in state expenditure on agriculture as a proportion of total budget spending: it was about 13% in the triennium 2000-2001 to 2003-2004 (average), which fell to about 5% in the triennium 2010-2011 to 2012-2013 (average). The capital expenditure on agriculture as a proportion of total expenditure on agriculture during the same period also fell, from some 95% to about 82%. These (secular) falls require reversing.

Box 4.6: Guaranteeing Remunerable Prices for Farmers – International Experience and Lao PDR

International Experience

In many countries (mainly in South Asia, East Asia and most of Europe), agricultural produce is at least partly guaranteed a minimum return through a Minimum Support Price (MSP) and/or input subsidy. MSP regimes need not be a government purchase as in the 1980s in Lao PDR, when all produce had to be sold to the Government at a predetermined price. An MSP only sets a floor price to hedge farmers against a seasonal price dip. It is operated through private merchants, with the Government compensating for the gap between the prevailing market prices and the MSP only when the market price falls below a defined minimum. Conversely, if prices increase beyond a certain level, taxes are imposed. It is assumed that the price support and tax would compensate for each other over time. Initially, a resource pool is created to start the process.

An MSP-type system, however, has a down side: it can be a disincentive to encouraging higher efficiency and promoting crop diversification. It also has caused unsustainable budget deficits in some countries where the cost of production is perennially high for agro-ecological reasons.

Lao Experience

In Lao PDR, the Ministry of Commerce is responsible for facilitating the export of products from Lao PDR. It sets the broad policies, conducts diagnostic trade integration studies and follows up on their findings, signs treaties and agreements on trade with other countries and multilateral agencies, and more. However, it has no interface with farmers, who turn to agricultural extension agencies for help. These extension agencies have little idea about the markets and prices. As a result, the farmers have little idea about what best to grow to maximize gains from international markets, other than what they hear from merchants who come to buy their products.

An approach followed in other countries that have a large population of small farmers is to establish marketing departments in the Ministry of Agriculture, which maintains a liaison with the farmers (directly or through the extension agencies) and the Ministry of Commerce. This should help farmers obtain advance information about international markets and prices.

Source: Adapted from Cambodia NHDR 2007.

Summing Up

The reasons for low yield rates in agriculture and hence of low labour productivity can be traced to the small sizes of holdings, excessive land fragmentation and relatively low levels of controlled irrigation, all of which result in low-intensity farming and low incomes for the farmers. The situation is aggravated by price fluctuations, overdependence on weather conditions, inadequate access to financial and marketing services and insufficient extension services.

Steps such as cadastral exercises to provide title deeds to farmers, thus improving farmers' access to financial services (savings, credit and insurance) and providing better integration with markets, are likely to contribute to higher farm income and stability. Measures such as consolidation of uneconomical farms, modern farming, designing the irrigation system to suit the topography and better extension services are needed to improve farm productivity. Stronger farmers' organizations can also be useful. However, the starting point is to reverse the trend in falling state investments in agriculture.

Finally, keeping in view Lao PDR's commitment to the SDGs, the strategy should be sustainable agricultural development that respects people's traditional lifestyles, considers ecological diversity and recognizes environmental fragility.

Industrial and Infrastructure Development

The authorities in Lao PDR have been focusing on modernizing and industrializing the economy since adopting the New Economic Mechanism (NEM) in 1986. Since then, Lao PDR has had six Five-Year Plans,¹¹¹ the latest being the 8th National Socio-Economic Development Plan (2016-2020)¹¹². The 7th NSEDP (2011-2015) aimed to achieve sustainable economic growth and poverty reduction, while gradually transforming Lao PDR into a more open economy, strengthening private sector productive capacity and prioritizing achievement of the MDGs by 2015. Continuing on the path to strengthening the country's productive base and diversifying the economy, the 8th NSEDP (2016-2020) explicitly set the target of graduating out of Lao PDR's LDC status by 2020. In addition, the 10-year Socio-Economic Development Strategy (2016-2025) includes among its seven strategies a strategy on industrialization and modernization. The key areas or sectors identified for this are:

- Electricity generation;
- Agro-processing industry;
- Tourism industry;
- Mining industry;
- Construction materials industry.

The Government also has strategies for human development, science/technology and infrastructure, and for ensuring political and economic stability.

Box 4.7: Industrialization and Modernization – Vision 2030

Vision

By 2030, Lao PDR should graduate from a lower-middle-income country to an upper-middle-income country, with an estimated GNI per capita at about four times that in 2015, and should achieve the SDGs. The country is also expected to have a knowledge-based economy.

Goals and Objectives

- Ensure sustainable development and accelerated economic growth;
- Achieve the objectives of the long-term development strategy, in particular the 10-Year Socio-Economic Development Strategy (2016-2025), Vision 2030 and the 8th Five-Year NSEDP (2016-2020);
- Graduate from LDC Status by 2020 or thereabouts.

Approaches

- Identify priorities, potential and opportunities for industrialization and modernization;
- Build pillars for economic development and growth;
- Propose a policy and institutional framework for industrialization and modernization;
- Propose implementation measures of the strategy.

Keys to Achieving Industrialization and Modernization by 2030

- Grow GDP at more than 7% a year; to achieve this, ensure investment of about 30% of GDP, including from public investment, FDI and domestic private investment;
- Focus on priority sectors such as the pillars of the Lao economy, namely, hydropower and lignite power, agro-processing, mining and mine-product processing, machine spare parts, assembly industries, tourism and a modernized agriculture sector;
- Modernize telecommunications, transport and communication systems, health and education systems, the Government's budget systems, and the banking and commercial systems, and improve the quality of governance;
- Develop urban and economic corridors and other infrastructure facilities;
- Develop human resources: develop more skilled workers, engineers, technical experts, managers, researchers and scientists, and invest in research and development (R&D);
- Develop and enhance the capacity of research institutes.

Implementation Measures

- Approve the policy by 2016;
- Integrate the strategy (until 2030) into the current and subsequent Five-Year Plans;
- Seek stakeholders' participation;
- Develop cooperation with the DPs.

Power Sector

The installed power generating capacity of hydropower projects in 2015 was 3,244.6 mega-watts (MW), which generated 50,278.91 kilowatt hours (kWh) through the period 2011-2015, increasing each year by some 30%. The Government owns installed capacities equivalent to 390.7 MW (11.6% of total installed capacity), while the private sector (mainly foreign interests) owns or manages the rest, having an installed capacity of 2,853.9 MW (88.83%). The domestic sector consumes 20% of the power (83% of villages are electrified), while 80% is exported. The Government has signed agreements with local and foreign investors for 71 more projects with an additional capacity installation of 21,668 MW. Of these, feasibility studies are being conducted for 31 projects, agreements are being prepared for 21 projects, and 19 projects are under concession agreements (and in the process of construction). An estimated 13,000 households in some 320 villages are connected with solar power. A sugarcane-based

bio-energy station with installed capacity of 3 MW was completed in 2011 in Savannakhet, which was expected to increase to 8 MW by the end of 2015.¹¹³ An ethanol production factory in Attapeu province has been operational since 2013, providing fuel to a power plant of 30 MW installed capacity.

The total length of transmission lines nationwide is 47,242.08 km. The high-voltage transmission lines of 230 KV to connect to the neighbouring countries are 481.4 km in length. Some 4,868 km of 115 KV lines connect the country for national transmission including for rural electrification.

Agro-processing Industry

In the period 2001-2012, the agro-processing industry grew rapidly: rice milling operations increased by 1.6 times, meat production by 9.2 times, sugar by 22.8 times, noodles by 12 times, bakery products by 6 times, beer by 4.6 times, liquor by 3.2 times and coffee by 3 times. During the period 2008-2012, flour made from cassava increased by 3.7 times and wood flour by 12.2 times. In 2012, there were 9,561 food-processing units across the country, handling some 74% of all food processed; the rest was processed outside factory settings (mainly in homes). In the factory sector, the most numerous were rice-milling factories (of which there were 9,174) followed by ice factories (203), rice vermicelli and noodle factories (41), slaughterhouses (28), corn and sugar palm fruit factories (27), and vermicelli, noodle and pork-shredding factories (26). These are mostly small-scale operations.

Manufacturing Sector

The manufacturing sector in Lao PDR has weak backward linkages, especially with the services sector. Inadequate supply of financial and telecommunication services—representing only 3% of total services inputs to manufacturing—may be a constraint on the diversification and upgrading of manufacturing firms, preventing them from moving up the value chain.

Domestic value added (49%) in exports from Lao PDR's manufacturing sector is below the levels in other countries such as Bangladesh (88%), Cambodia (76%), Thailand (80%) and Vietnam (64%). Only a few manufacturing activities (metals, lumber, clothing, food and beverages, and processed foods) have been successful at generating domestic value added in Lao PDR, either directly or indirectly through their input demand. This is different from the situation in countries such as Thailand and Vietnam, which have a more diversified manufacturing base.¹¹⁴

In Lao PDR, 51% of manufacturing value added generated within the country is composed of inputs from the primary sector—not from manufacturing itself, or from the agriculture or services sectors. This is a higher proportion than in Bangladesh, Cambodia, Nepal, Thailand, and Vietnam; all have stronger linkages between their agricultural and manufacturing sectors. The country that comes close to Lao PDR is Mongolia, at 48%.

The manufacturing sector's weak backward and forward linkages is not conducive to the development of SMEs. Inadequate access to specific domestic services sectors appears to be a constraining factor for manufacturing, and suggests room for policy (Box 5.2). For example, a lack of finance for manufacturing firms was an issue related to their bookkeeping and credit worthiness. Developing countries such as Bangladesh and India have been successful at developing credit rating agencies targeting SMEs.

Tourism Industry

Based on a survey conducted in 2013, there were 1,807 tourist attractions in the country, of which 1,042 were eco-tourist sites, 501 cultural tourist sites and 264 historical tourist sites. Additionally, some 1,807 potential tourist sites were identified, of which 141 have been surveyed, 230 are currently being surveyed and 1,436 are yet to be surveyed. In 2012, some 3.3 million tourists arrived in Lao PDR, which was a fourfold increase on 2001. Revenue collection from tourism was US\$513 million in 2012, 3.9 times more than in 2001.

Although the tourism (travel) sector has been expanding, it remains low-end tourism. Expenditure per tourist is low, and has remained steady over past years at about US\$50 per day. This is largely because of the high numbers of daytrippers from within the region, notably China. In addition, there is low supply of high-end tourism options in Lao PDR.

Tourism has been used as a tool for economic development throughout the world. Government policy can play an important role in the development of a country's tourism sector. In less than two decades, Cape Verde has overcome significant environmental and geographical barriers and transformed its economy (Box 5.3).

Mining Industry

During the period 2001-2012, the Lao Government sanctioned 95 mining projects with investments worth about US\$5.5 billion. This was a 30-fold increase on the period 1989-2000. Thirteen projects were in iron mining, 12 in gold and copper mining, 11 in limestone mining, 10 in tin mining, 5 in salt mining, 3 in gypsum mining, 1 in lignite mining and 35 in other types of mining. Consequently, mining production has grown rapidly. Between 2011 and 2004, limestone production increased 1,988 times, copper 8 times, gypsum 2.9 times and lignite 1.7 times.

Construction Materials Production Industry

In 2011, there were eight cement factories with an annual production of 2.4 million tonnes, which formed about 60-70% of the total domestic demand. In addition, there were 376 brick kilns, 64 concrete factories, 53 concrete block factories, 37 roof tile factories, 37 factories producing house poles, fence poles and electricity poles, 17 steel bar factories and 16 steel factories. Between 2001 and 2011, the production of cement increased 23.2 times, bricks 12.6 times, concrete blocks 9.4 times, steel bars 4.1 times, electricity poles 2.7 times and roof tiles 2.6 times.

Summing Up

The GDP growth rate has been high and the projected sectoral growth in the Vision 2030 statement seems achievable. However, as mentioned in the previous chapters, the pace of poverty reduction has been slow compared with Lao PDR's growth rate and inequality has increased. This indicates that Lao PDR's growth has not been broad based and it has not generated adequate productive employment. There has also been little indigenization of technologies and dependence on expatriate expertise and companies remains high.

Thus, longer term strategies are needed to make industrialization more broad based and productive employment intensive, and for greater indigenization and control of modern technologies, especially to encourage foreign-owned companies to transfer technology and management and marketing skills. This should be complemented by strategies to develop human capital, especially domestic entrepreneurial-managerial skills, and a sound financial sector to mobilize domestic savings and encourage domestic investment.

Diversification of the economy needs to be supported by improving the stock of human capital. Building up skills, including basic numeracy and literacy, is vital if Lao PDR is to move into more sophisticated services and manufacturing production. For example, in order to upgrade in textiles and garments, firms need to rely on a workforce that can undertake original design, accounting activities and marketing.

Finally, there have to be strategies to avoid industrialization and modernization that may damage the environment, lead to unsustainable urbanization, create disparities and affect sociocultural sensitivities. That is, industrialization and modernization strategies need to be mainstreamed into Lao PDR's strategies for the SDGs. Its MDGs experiences can be very helpful in this regard.

Natural Disasters

Analysis of the occurrence of natural hazards (floods and droughts) during the period 1966- 2002 shows that, every year, some part of the country was affected by either drought or flood or a combination of both. For instance, in the Central and Southern regions, where most rice is cultivated, there were floods or droughts in some parts of the region in 32 of the 36 years under study.¹¹⁵ The Lao Agricultural Census of 2010/2011 reports that villagers in more than 80% of the villages believe that they face some forms of natural disaster.

Much of Lao PDR's landscape is undulating, and many areas are prone to droughts, floods and soil erosion. An anthropogenic contributory factor is the persistence of swidden farming. Cultivation in marginal quality lands and illegal logging are also making the country increasingly disaster prone.

Table 4.5: Villages practising swidden and its impact

Location/Type of village	Villages with shifting (swidden) cultivation and affected by soil degradation (%)			
	Shifting cultivation	Soil degradation		
		Light	Moderate	Severe
North	21.0	23.1	9.3	1.1
Central	17.8	17.7	6.1	1.0
South	11.8	19.9	10.1	1.9
Lao PDR	18.0	20.5	8.3	1.2
Rural with road	16.0	19.9	8.0	1.0
Rural without road	27.4	23.3	9.5	1.7
Lowland	5.4	17.1	4.6	0.6
Upland	28.7	24.9	10.9	1.3
Plateau	19.5	18.4	9.7	1.7
Mixed land	14.3	10.7	7.1	n.a.

Source: Lao Agricultural Census 2010/2011.

Table 4.5 suggests that there is shifting (swidden) cultivation everywhere. Correspondingly, there is soil degradation (erosion).¹¹⁶ Currently the degradation is light to moderate, but it can become more severe if the practice continues. Stopping shifting cultivation is thus a top priority. Finally, illegal logging has had equally as devastating effects.¹¹⁷

The perceptions of village communities about climate change, though not scientifically validated, are presented in Table 4.6. The point that attracts attention is the uniform agreement by a large majority of village chiefs that the rains have become scarcer and now arrive later in the season compared with how much and when it rained earlier.

Lao PDR will have to grapple with climate change in its own terrain through conserving its forests, water bodies and agro-ecology.¹¹⁸ The Government may consider some simple rules:

- Completely stop swidden/slash-and-burn cultivation;
- Completely stop illegal logging and start replanting;
- Be extra diligent with environment impact assessments when considering approval for hydroelectricity and mining projects;
- Establish early warning systems at the field level for floods and other occurrences;
- Set up standards for buildings and abodes with regard to their foundations, building materials, etc., to ensure that they are not easily destroyed by floods or other natural occurrences;
- Establish facilities for advising farmers on what to grow/not grow in the event that there is a forecast of flood or drought (e.g. drought-resistant varieties of crops, late-sowing crops, and so on);
- Rapidly complete roads in all areas to facilitate moving people quickly in the event of an area being affected by a calamity.

Table 4.6: Village chiefs’ perceptions about rainfall

Region/village/land type	Recent years’ wet season rainfall		
	Drier than normal	Same as normal	Wetter than normal
North	80.5	10.8	8.7
Central	71.7	16.6	11.7
South	87.1	5.9	7
Lao PDR	78.5	12.0	9.5
Region/village/land type	Recent years’ wet season timing		
	Earlier than normal	Same time as normal	Later than normal
North	14.4	12.3	73.3
Central	13.3	15.9	70.8
South	13.0	9.0	78.0
Lao PDR	13.7	13.0	73.3

Region/village/land type	2010 wet season rainfall		
	Drier than normal	Same as normal	Wetter than normal
North	81.7	8.2	10.1
Central	74.0	10.9	15.1
South	87.6	4.4	8.0
Lao PDR	80.0	8.4	11.5

Source: Lao Agricultural Census 2010/2011.

Conclusion and Policy Implications

Agricultural Development

An important reason for the economic vulnerabilities that Lao PDR faces is agricultural backwardness. Agricultural backwardness also contributes to gaps in GNI and the HAI values. There are several reasons for agricultural backwardness: the small sizes of holdings and excessive land fragmentation, relatively low irrigation levels, little use of modern high-yielding inputs, further constrained by limited extension services, very inadequate (affordable) farm credit and uncertain prices for farm produce. The Government has already adopted strategies for developing the agriculture sector. Based on the analysis in this chapter the following priority actions are suggested for the Government's consideration, especially in implementing the 8th Five-Year NSEDP:

- Reverse the decline of state investment in agriculture;
- Undertake/hasten the cadastral exercises to provide title deeds to farmers to ensure their access to banking and such facilities. While undertaking cadastral exercises it should be possible to undertake measures for consolidating uneconomical land fragments;
- Rethink irrigation and water management methods. Irrigation is not large dams alone; it requires judging the types of irrigation systems required, forming farmers' organizations, and entrusting farmers' organizations with responsibilities for the distribution of water, collecting fees and the up-keep of water management structures, among other matters. Expand irrigation with a combination of small, medium and large irrigation methods;
- Spread modern seed/fertiliser technologies; adopt farming systems approaches and innovative approaches such as SRI, etc., through integrated agricultural extension services;
- Take measures for financial inclusion to improve financial services for farmers. This should include a range of financial services, such as savings, credit and insurance;
- Take measures, such as supporting the growth of farmer's organizations, to link farmers to markets and improve their bargaining powers with traders, millers and manufacturers.

Industrialization

The Industrialization Strategy in Vision 2030 appears to lack the human development component. The Vision 2030 Statement is ambitious on material goals but is not so explicit on the human-development-oriented targets. To industrialize the country there is a need for strategies to:

- Strengthen backward and forward linkages;
- Expand productive employment;
- Develop national entrepreneurship skills;
- Grow small and micro enterprises;
- Transfer and indigenize technologies.

Natural Disasters

Management of the natural resources and environment appear pivotal for reducing exposure to natural disasters. Forests, land and water require preserving for the purpose of disaster mitigation. The key strategies are:

- Completely stopping the slash-and-burn type of farming;
- Putting a stop to the illegal logging;
- Conducting rigorous environmental impact assessments of the hydropower and mining projects;
- setting standards for construction, early warning systems and other mitigation measures.

Agricultural development and industrialization have to proceed simultaneously, pulling each other in order to scale up. The country's development strategies must take into account linkages between industry and agriculture in terms such as acknowledging food supplies as wage goods for people working in industry, agricultural exports that facilitate imports for industrialization, labour supplied from agriculture to industry, agricultural surpluses that contribute to investment in industry and agricultural sector incomes that constitute demand for industrial goods. In this respect, Japan's experience is instructive; there, transformation of agriculture with rising productivity took place in the context of the traditional framework of small-scale farming with agriculture and industry developing in harmony.

Finally, agricultural development, industrialization and disaster reduction strategies should be mainstreamed with Lao PDR's strategies to achieve global- and people-centred sustainable development goals. Human development is vitally instrumental in this, and an aim in itself.

Appendix 4.1: Situation Analysis

Topology and Growth

The traditional activity in Lao PDR has been farming. After the New Economic Mechanism (NEM) was implemented in 1986, the shares of industries and services in GDP began to increase. The farm sector, too, has gradually been modernized, though large parts of it continue to be operated in the small-farm sector and in subsistence mode. In some parts of the country, the swidden (slash-and-burn/shifting) cultivation method continues to be practised.

Lao PDR's total land area is some 23.7 million ha, of which one fifth (some 4.5-5 million ha) has been estimated to be arable. The actual area under crops in 2010/2011 was about 1.9 million ha, less than half the potential, but more than the 1.0 million ha in 1998/1999. However, the ecological implications of this expansion of land under cultivation are not known. According to the Agricultural Census of 2010/2011, land under temporary/seasonal crops (paddy, maize, vegetables, etc.) was about 1.2 million ha, with paddy dominating (>80% of the area under seasonal crops; there is considerable crop concentration, which raises the risk of crop failure in the event of natural disasters). Cultivation intensity in 2010/2011 was estimated at about 86%, somewhat lower than in 1998/1999. The cultivated land area had increased by about 6% (compound annual) between 1998/1999 and 2010/2011, an increase of almost 80% in a decade.

The topology of the country consists of upland, plateau and plains. The main rice bowl of the country is the lowland plain, which has both irrigated and rain-fed areas. The plateau area (the Bolaven Plateau) is in the South, and is where coffee and tea are grown. The upland or mountain region is mainly in the North and East, where some swidden cultivation is practised.

While overall crop plus livestock production rose by about 3% (compound annual) from 1998/1999 through to 2010/2011, the average paddy productivity (yield rate) in 2010/2011 remained unchanged since 2002/2003, at about 2.2 tonnes/ha (estimates from LECS-3), which implies that all the production in recent years, of some 2.6 million tonnes of paddy (in 2012/2013, Source: LECS-5), originated from area expansion. In principle, expansion of the area under crops (as long as it is not for swidden) is a welcome step. This is in fact part of the policy, but problems arise when expansion occurs on marginal lands and the production per worker ratio (labour productivity) and hence, farmers' incomes, does not rise. Between 1998/99 and 2010/2011, the number of farm households rose by 17%, a much higher rate than the rise in crop and livestock production.

Finally, the area under forestry and permanent crops in the farm household sector (according to the Agricultural Census of 2010/2011) was some 247,000 ha, or about 13% of the total area of land in the farm household sector. Its contribution to the output from agriculture and allied activities, however, has been less than 10%, and lower than that from the (largely subsistence-oriented) farm sector.

Agricultural Technology Applications

Essential to improving yield rates and incomes in agriculture is the sowing of high yielding variety (HYV) seeds with the application of fertilisers in the presence of controlled irrigation in an agro-climatic zone such as that in Lao PDR.

HYV seeds are grown in some 45% of the country's farm area. That the aggregate area under HYV seeds is less than 50% suggests that there is a long way to go before these seeds cover the whole of the

farmlands. There is a wide variation across provinces: in Champasack more than 81% of the farm area is under HYV seeds, while in Xiengkhuang it is only 1.6%.

Fertiliser application is more widespread now: some 42.1% of *farmers* (not farmland) applied chemical fertilisers on their lands in 2010/2011, compared with 28.5% in 1998/1999. There is again vast regional variation: there are three times more farmers applying fertilisers in the South and Centre than there are in the North. Also, the quantity of fertiliser application is small: the average was only 10 kg/ha in 2010/2011 compared with over 290 kg/ha in Vietnam and over 150 kg/ha in Thailand. Finally, organic fertilisers are gaining currency, with some 40.9% of *farmers* applying these in 2010/2011 compared with 33.3% in 1998/1999.

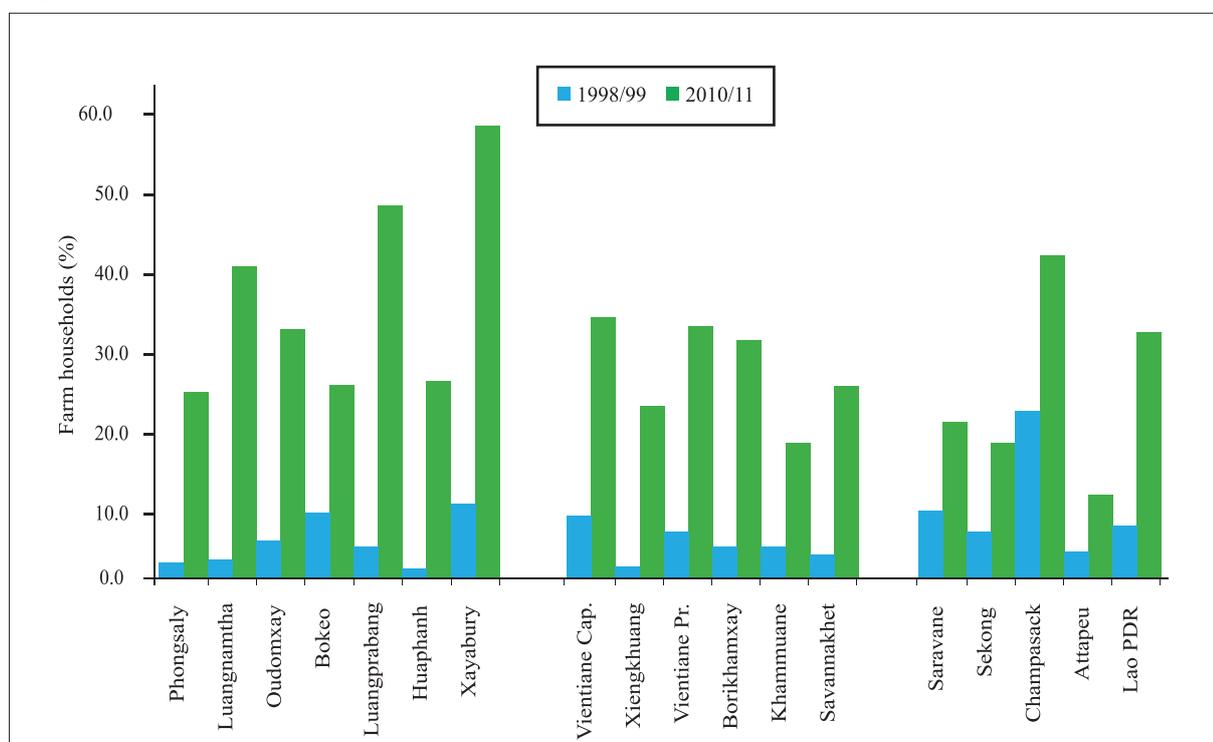
Lao PDR has the potential to modernize its agriculture much more. However, small-sized plots and excessive land fragmentation inhibit the expansion of irrigation and use of farm machinery, which, in turn, limits agricultural modernization.

Marketing and Subsistence

Traditionally, farmers in Lao PDR have been subsistence farmers, i.e. producing only for their own consumption. In the last 3-4 years they have gradually switched to reaping more returns from their resources, which has resulted in production beyond subsistence level (i.e. for the market).

Data on the marketed surplus from agriculture in Lao PDR's statistical systems are not available. The Lao Agricultural Census has, however, collected data on the *farm households* that sold some part of their agricultural produce in the markets. The figure below presents these for 1998/1999 and 2010/2011.

Figure 4.3: Percentage of Farm Households Selling to the Markets



Source: Analysis of Lao Agricultural Census 2010/2011 (reporting for both years), Ministry of Agriculture, Vientiane.

On aggregate, no more than 30% of the households sold some part of their produce to the markets and there is no real pattern across provinces. There was a large increase in the crops produced only for the market (commercial crops) between 1998/1999 and 2010/2011. In 2010/2011, for example, the area under maize, a commercial crop in Lao PDR, was 134,000 ha, up from some 25,000 ha in 1998/1999. Similar increases in area and production were observed for coffee, cassava and other plantations. Land under paddy was some 96% of the total seasonal crops sown in 1998/1999, but decreased to 80% in 2010/2011. Other examples: Xayabury now grows significant quantities of maize, Champasack grows significant quantities of bananas, coffee and mangoes, and Luangprabang and Luangnamtha grow rubber and fruits in notable quantities. Thus, households producing and selling in the markets are the ones that grow non-paddy/commercial crops.

Marketed surplus originating from lands under commercial/cash crops is a reflection of a move towards market orientation. However, in paddy this is not the case. For one, paddy is marketed only from some areas along the banks of the Mekong River, and not elsewhere. Second, on aggregate, the paddy yield rate has not increased, implying that only a small amount can be marketed. Since paddy is by far the most important crop, the country still has some way to go before “production for the market” fully occurs.

Notes:

- a. Cultivation intensity is the ratio of cultivated area to arable area.
- b. The 8th Five-Year NSEDP quotes a figure of about three million tonnes of rice production for 2011. It is believed that the plan has drawn its figures from the Ministry of Agriculture. These do not match the numbers in LECS-5. In this report there is a greater reliance on LECS and LSIS databases; these are large databases and the sampling, coverage, data collection processes, etc. are available in the public domain. Also, since these data are collected periodically, they can be used for temporal comparisons, unlike one-off databases.

Source: Reports of the Lao Agricultural Census, 1998/1999 and 2010/2011; Ministry of Agriculture (2010), Strategy for Agricultural Development 2011-2020, Vientiane.

Chapter 5

The way forward - Investing in Human Development for Smooth Graduation

In order to achieve inclusive sustainable development for smooth graduation from LDC status, Lao PDR needs to leapfrog and create competitive advantage in high-value-added niche products to rapidly draw its large agricultural labour force to high productivity non-farm activities in the manufacturing and services sectors, and also to lift the productivity of the agriculture sector where the vast majority of the poor live and work. This would require investment in quality education, including skill development. The starting point, of course, is to improve the literacy and numeracy as well as the nutritional level of its growing labour force.

Lao PDR has made impressive socio-economic progress since adopting the New Economic Mechanism (NEM) in 1986 to shift the economy from a centrally planned system to one that is more market driven. With resource-sector-led growth of around 8% over a decade, Lao PDR witnessed a sustained decline in poverty and improvements in human development. It is now a lower-middle-income country and an HDI value of 0.575 (in 2014) has moved Lao PDR from a low- to a medium-level country in terms of human development. Lao PDR is a full member of the WTO and ASEAN Economic Community (AEC) and it aims to graduate out of the LDC category by 2020.

However, as the previous chapters have revealed, Lao PDR's progress has been uneven. In particular, the pace of poverty reduction has not been commensurate with the pace of economic growth as productivity and decent jobs lagged behind. More importantly, the incidence of poverty did not decline uniformly across its regions and among various ethnic groups and there has been a rise in vertical (among individuals) as well as horizontal (regional and inter-ethnic) inequality both in income and human development. This lack of inclusive growth has, in turn, lowered the poverty-reducing impact of growth. The problem has been well recognized by the Lao PDR Government in setting the goals and strategies for the 8th Five-Year NSED (2016-2020).

Additionally, despite noteworthy reforms and structural change, the resource sector remains the main driver of the Lao economy and low productivity agriculture is still the main absorber of the labour force (accounting for over 65% of employment). The country's manufacturing base is narrow, and its exports are less diversified in both product composition and markets. This makes the Lao economy vulnerable to both external and natural disaster shocks.

The Lao PDR Government has set out goals and strategies for economic diversification along with inclusive socio-economic development in order to reap benefits from its membership in the AEC and to ensure smooth transition out of its LDC status. This chapter examines the critical areas of challenge that Lao PDR faces and offers recommendations based on lessons learned from Lao PDR's own past and from elsewhere. Investment in human development—education (literacy, numeracy, early childhood development and acquisition of skills, etc.) and health (food security, nutrition, child and maternal health, etc.)—plays a pivotal role in overcoming these challenges.

The discussion on policies and recommendations are presented at two levels—at a general or macro level in terms of options to create an enabling environment, and as a specific action agenda to enhance the instrumental role of human development, which is needed to achieve inclusive sustainable development for smooth graduation out of LDC status.

Context and Critical Questions

Lao PDR faces the challenge of smooth LDC graduation within the context of *systemic* transition to a more market-oriented, globally and regionally integrated economy, as well as a decentralization programme of resource management and revenues at province, district and village levels. There is no textbook blueprint for transition—it requires careful sequencing and determining of pace based on a country's own circumstances and experiences of others in a similar situation. Global and regional integration offers both opportunities and challenges. Understanding these issues is critically important given Lao PDR's structural impediments, such as a relatively small labour force exacerbated by a low skill base (including poor literacy and numeracy), poor connectivity impaired by the landlocked nature of its geography and a narrow economic base dominated by low productivity agriculture and a capital-intensive resource sector.

Lao PDR is already experiencing some of the pitfalls of market transition, such as growing inequality and regional disparities, which may be aggravated by rapid global and regional integration. Hasty opening up and deregulation may increase economic vulnerability transmitted from the global and regional economic shocks. One of the lessons of the 1997-1998 Asian financial crisis is that hasty financial sector deregulation, especially in the context of an open capital account and weak institutions, may increase financial sector fragility and financial crisis vulnerability, with serious implications for poverty and inequality as well as for sociopolitical stability,¹¹⁹ especially in an ethnically and geographically diverse country such as Lao PDR. There can also be constraints on fiscal and policy space as a result of tariff reductions and harmonization of corporate tax rates. Some critical questions in such situations, especially for smooth graduation, are:

- Should Lao PDR follow the dictates of the market and international division of labour?
- Would that policy option leave Lao PDR economy suboptimally diversified?

- Would that policy option be consistent with inclusive and sustainable development?

Answers to these questions would lead to discussions of policy options to:

- Leapfrog and accelerate structural transformation and expand priority sectors in a sustainable and inclusive manner;
- Balance the need to expand jobs with the need to improve productivity;
- Strike the right balance between the need for prudential regulations and the demand for deregulation to promote the private sector, in particular foreign investment in priority areas, and to meet the AEC requirements;
- Enhance fiscal space and policy space to address vulnerability, rising inequality and regional disparities, especially in human development.

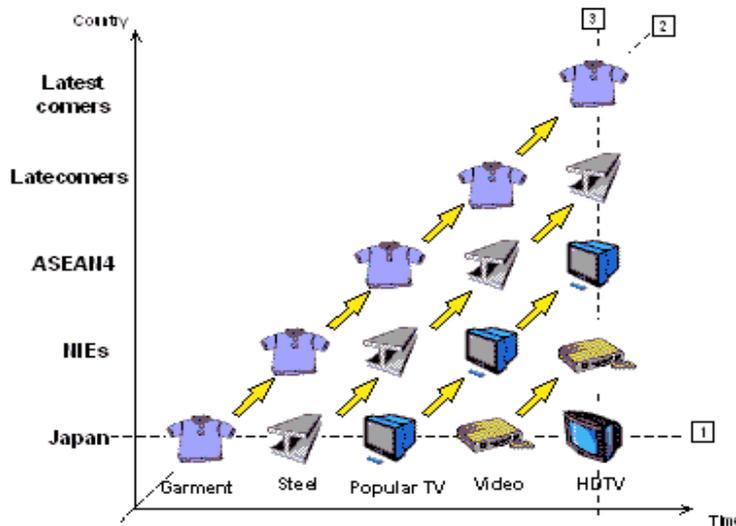
In all this, finding an appropriate role for the State and enhancing governance capabilities are critically important.

Policy Options

Leapfrogging to Diversification

The first-tier newly industrializing south-east Asian countries, such as Malaysia, Thailand and Indonesia, industrialized predominantly following the famous “flying-geese” model.¹²⁰ They are labour surplus economies that took advantage of rising labour costs in maturing countries in the region. Japan, at the head of the pack of flying geese, progressively shifted its assembly-line production of standardized products to low-cost Malaysia, Thailand and Indonesia. Vietnam and Cambodia are the newest in the flock (Figure 5.1).

Figure 5.1: Structural Transformation in Asia



Note: 1=Japan’s progression from garment to high-tech production; 2= shifting of garment production from Japan to low-cost labour surplus countries; 3=international division of labour.

These countries had a comparative advantage with a large, reasonably literate and numerate labour force. However, Lao PDR is not a labour surplus economy. Its population size of 6.5 million is less than the half of Cambodia's 15.6 million. Vietnam's population size is more than 13 times that of Lao PDR, and the newest ASEAN member, Myanmar, also an LDC, has a population of 53.9 million.

But Lao PDR has the youngest population in the region and is expected to benefit from demographic transition. The share of the working-age population (aged 15-64 years) in Lao PDR is projected to increase to 69% in 2050, as opposed to 65% in Cambodia, 62% in Vietnam and 68% in Myanmar. However, this will translate into a labour force of only 7 million—an increase of 2.8 million—vis-à-vis 14.8 million in Cambodia, 69.6 million in Vietnam and 43.1 million in Myanmar.¹²¹

Thus, Lao PDR does not seem to have a comparative advantage in labour-intensive activities over its closest competitors in the region. Being a landlocked country, it suffers from an additional disadvantage of geography compared with the two LDC members (Cambodia and Myanmar) of the AEC. More importantly, its labour force is the least literate and numerate, according to the World Bank's *Lao Development Report 2014*. It reported (p. 12):

An Early Grade Reading Assessment showed that over 30 percent of 2nd graders could not read a single word, and among those who could read, 57 percent did not understand what they had just read. In an adult literacy assessment carried out in six countries around the world—including Vietnam, Yunnan Province (China), and Lao PDR—adults in Lao [PDR] had the poorest literacy skills among the adults tested. Post-secondary graduates in Lao PDR performed almost on par with people with only primary schooling in Vietnam. Given how important reading ability is for learning more advanced skills, the low level of basic literacy has serious implications for the country's productivity, growth, and competitiveness.

Therefore, Lao PDR cannot hope to gain from the shifting of labour-intensive activities from late flying geese, such as China—Cambodia, Myanmar and Vietnam will have an edge. Hence, it is not surprising that private investment, mainly foreign, in Lao PDR tends to concentrate in the resource sector, where it has a comparative advantage. Thus, by simply following the dictates of the market or of natural comparative advantage, Lao PDR cannot adequately diversify its economy. Its window of opportunities to pursue the shared growth path of East Asia's first-tier newly industrializing economies through employment-intensive products for exports is extremely small.

Hence, Lao PDR needs to leapfrog and create competitive advantage in high-value-added niche products to rapidly draw its large agricultural labour force to high productivity non-farm activities in the manufacturing and services sectors and, at the same time, lift the productivity of the agriculture sector where the vast majority of the poor live and work. Some of the niche areas are eco- and cultural tourism, handicrafts, organic agri-horticulture, agro-processing (such as specialty coffee, see Box 2.5) and high-value-added secondary wood products, which the Lao PDR Government has already identified.

However, to be able to leapfrog, Lao PDR needs policy space as well as governance capabilities to provide regulatory and policy supports to the emerging niche and high-value-added activities. Singapore's experience in the 1980s with industrialization and restructuring towards higher-value-added skill-intensive activities through policies involving wages, compulsory savings, education and skill development can offer important lessons for Lao PDR.¹²²

Regulations and Reforms for Diversification

As part of its transition to a more open and market-oriented economy, Lao PDR has already instituted some significant reforms. For example, co-operativization was abandoned, restrictions on internal trade were removed and a free market was introduced for agricultural produce. An array of measures was introduced to eliminate microeconomic constraints limiting private production and to encourage FDI, including a legal framework of commercial, trade and labour laws as well as privatization of most state-owned enterprises (SOEs), with the exception of about 20, designated as “strategic”. Closer attention is now being paid to macroeconomic stability, which has improved budgetary and monetary policies. Lao PDR also has put in place a new tax framework that includes VAT.

Yet Lao PDR is often criticized for not instituting enough reforms and is placed almost at the bottom, compared with other countries in the region, on the ease of doing business.¹²³ Thus, there is almost unanimous agreement among the observers of Lao PDR that barriers to doing business in Lao PDR must be removed to encourage investment and spur productivity growth in diversified sectors in order to help create more attractive off-farm employment opportunities. The World Bank has recommended action on three fronts:¹²⁴

1. Streamlining and simplifying the business compliance and transaction costs associated with dealing with the government to create a more business-friendly environment;
2. Improving transparency in the provision of public sector services to business through measures such as publication of all fee schedules, permits, and licensing requirements;
3. Establishing a more predictable playing field for the private sector, with consistent implementation of publicly available legislation, rules and regulations, and with reduced bureaucratic discretion.

However, Lao PDR needs to strike the right balance in its policy framework. Prudential regulations are needed to ensure financial sector stability and financial inclusion.¹²⁵ Access to finance has been singled out as one of the main obstacles for SMEs. Large private banks, especially foreign-owned ones, are generally not found to favour SMEs. Most countries have specialized state-owned financial institutions for SMEs and agriculture.

Appropriate legislation is necessary to safeguard labour standards and environmental integrity as well as to ensure that private investment, especially FDI, contributes not only to economic growth but also to sustainable and inclusive development.

Proper competition and anti-monopoly legislation is necessary to protect consumer interests and prevent privatized network industries, such as telecommunications, from restricting access and charging exorbitant user charges.

These are delicate acts of balancing, especially in an ethnically diverse society where business activities have to respect the traditional values and rights of the people.

As part of its efforts to secure WTO membership, Lao PDR has made legislative amendments in a number of areas, including tax, trade and intellectual property.¹²⁶ In addition, it has signed a series of trade-related agreements with Cambodia, China, Japan, the Republic of Korea and the US, among other

countries. To comply with the AEC integration process, Lao PDR is expected to reduce its import tariffs to zero on goods imported from other ASEAN countries by the year 2018 and remove non-tariff barriers.

However, historically, tariff has been an important instrument of industry policy to support desired activities at the initial stage. Lao PDR stands to lose this policy instrument with free trade agreements and AEC integration. With a limited productive capacity and comparative advantage outside its resource sector, Lao PDR does not have many products to offer to its free trade partners, while its nascent domestic manufacturing sector is likely to face intense competition, challenging Lao PDR's diversification efforts.

But Lao PDR can learn important lessons from East Asia's successful use of industry policy instruments. Lao PDR has to find potent instruments other than tariff and non-tariff measures (e.g. licensing) which are non-discretionary to support "sunrise" activities. One such instrument is investment in research and development (R&D). This would require investment in quality education, including skill development. The starting point, of course, is to improve the literacy and numeracy as well as nutritional level of its growing labour force.

Enhancing Fiscal Space for Human Development

Lao PDR's public expenditure on education and health is inadequate compared with some of its regional competitors and the LDC average. For example, the Lao PDR Government has spent 2.8% of GDP on education during the period 2005-2014, whereas public spending on education in Vietnam was 6.3% of GDP and in landlocked LDCs Nepal and Bhutan, which are similarly resource-rich, it was 4.7% and 5.5% of GDP, respectively; the average for the LDCs was 3.4% of GDP. The picture is very similar in public health spending. Lao PDR's public expenditure of 2% of GDP on health in 2013 was far below the 6% of Vietnam's and Nepal's respective GDPs and the LDC average of 5.2%.¹²⁷

Based on the latest available data, the ADB placed Lao PDR fourth from last on its Social Protection Index (SPI) among the Asia-Pacific countries.¹²⁸ Lao PDR's public expenditure on social protection was 0.9% of GDP, below Cambodia's 1.0%, Bhutan's 1.2%, Nepal's 2.1%, Thailand's 3.6% and Vietnam's 4.7%.

Increasing public expenditure on education, health and social protection requires fiscal space. Lao PDR still depends substantially on foreign aid for social spending, especially on health and education. LDC graduation might affect Lao PDR's access to grants and concessional loans. However, given the commitment of the DPs to Agenda 2030 for the SDGs and Lao PDR's good progress on the MDGs, they are likely to treat Lao PDR favourably even after its graduation out of LDC status.

Nevertheless, Lao PDR has to enhance its domestic resource mobilization efforts. But despite making significant progress, Lao PDR's ability to further enhance its revenue is limited due to the informal and subsistence nature of its economy. It also stands to lose an important source of revenue with cuts in tariffs. Lao PDR is expanding VAT in order to compensate for the loss. But in many developing countries revenue losses due to trade liberalization and the abolition of trade-related taxes were rarely compensated for by indirect taxes such as VAT. An IMF study found that, while rich countries have been able to offset reductions in tariff revenue by increasing their domestic tax revenue, this has not occurred in most developing countries. Middle-income countries were found to recover only up to 60 cents of each dollar of tariff revenue lost, and low-income countries recovered no more than 30 cents.¹²⁹

With integration into the AEC, Lao PDR will also come under increasing pressure to cut its corporate tax rates. However, it is well known that direct tax concessions have little effect in diverting international investment,¹³⁰ let alone in attracting such flows; such tax concessions may constitute an unnecessary loss of revenue. In fact, over the past few years Lao PDR has used tax concessions to attract large investment.

Therefore, Lao PDR has to carefully examine the cost and benefits of further tariff and tax cuts. Indeed, it might need to reconsider its tax holidays and tax exemption. It also has to strengthen its tax administration and remove loopholes to prevent tax avoidance and evasion. Special attention needs to be placed on strengthening the auditing procedure to ensure transparency. The quick win for this is to make private external auditing compulsory for large-revenue enterprises. Lao PDR would need technical assistance to develop its capacity in improving tax administration.

As SMEs form the largest portion of the Lao economy, they inevitably could become a potential source of increased tax revenue. Currently, the majority of them are informal and do not hold proper accounts. Therefore, there is a need to create an enabling environment for them to grow in size and quality and become formal.

It is now widely accepted that efficiency of enterprises does not depend on ownership, and privatization of SOEs does not necessarily improve profitability and tax revenue for the government. SOEs can be made efficient and an important source of revenue through management reforms; by allowing them to pursue commercial principles rather than difficult-to-monitor multiple socio-economic goals, where failure in one can be hidden by success in another. Lao PDR can learn from the successful experience of its ASEAN partner Singapore.

With the likely continuation of high demand for resources, especially for hydroelectricity by its ASEAN partners, Lao PDR will have to examine various options for enhancing revenues from its resource sector.

Some argue that developing countries should sell exploitation rights, mostly to transnational corporations (TNCs), as they are not themselves capable of managing the extraction of natural resources. However, this would only be effective in the absence of corruption and in the presence of a domestic capacity to design contracts.

There are also many forms and nuances between full state ownership and privatization, such as contractual systems involving partial participation in a mining company and various forms of payment. Extracting natural resources directly through joint ventures or production sharing or exploitation by SOEs are interesting alternatives. In many countries the private sector takes the lead in the exploitation of natural resources. The State is indirectly included in the mineral rents, as it receives part of the rent in the form of taxes, as follows:

- Production-based taxation: per unit or ad valorem royalties, sales taxes, export and import duties, VAT, land rents, property tax, payroll tax, registration fee and stamp duty;¹³¹
- Profit-based taxation: corporate income tax, resource rent taxes, taxes on windfalls, tax holidays, accelerated depreciation periods, tax-free remittances of profits, capital cost allowances, profit tax on dividends, royalty based on profit, taxation on capital gains;
- Environmental taxes to compensate for negative environmental effects caused by the activities of the mining companies.

The advantages and disadvantages of each tax have to be carefully examined. In general, countries do not use only one of the instruments listed, but a combination of them in varying degrees, depending on their political, institutional, historical and geographical context.¹³²

Box 5.1: Public–Private Partnerships – Lao PDR Needs Capacity Building Support

Public–Private Partnerships (PPPs) are being promoted as a key instrument to fill the huge financial gap in infrastructure investment. It is claimed that PPPs are more efficient, better transfer risk and therefore represent better value for money. However, the majority of researchers have found that claims in favour of PPPs are not backed up by evidence.

The recently built 425-bed hospital in Lesotho, a PPP project facilitated by the International Finance Corporation (IFC) of the World Bank, provides an illustrative example of how a seemingly successful PPP may have negative impacts on the country's non-transparent contingent fiscal liabilities, and hence on overall social development efforts. An Oxfam study in 2014 found that the hospital threatens to bankrupt the impoverished African country's health budget, since more than half the country's entire health budget (51%) is being spent on payments to the private consortium that built and runs the hospital in the capital. The PPP hospital cost \$67 million per year—at least three times what the old public hospital would have cost today, and it consumed more than half of the total government health budget.

A World Bank study of private participation in electricity and water in developing countries pointed to a shortfall in investment by the private sector and concluded that the private sector operators reaped the gains in savings in the form of higher profits without passing on benefits to the consumer.

The World Bank's Independent Evaluation Group in 2014 concluded that more evaluations are needed to better understand important aspects of public service delivery, for instance, access, pro-poor aspects and quality of service delivery. Similarly, an IFC literature review concluded that, despite policy-level commitment, there was very little evidence of PPP infrastructure projects taking conscious action on developing gender equality. PPPs in the health sector, especially involving philanthropic entities and donors are characterized as a double-edged sword. Although they are able to provide large amounts of money, they generally do not allow for a holistic view of the healthcare concerns faced by a country.

In light of the above, the UN Department of Economic and Social Affairs (UN-DESA) has recently published a working paper based on the findings on PPPs around the world.

Key salient findings on PPPs

- They lack definitional clarity and a common accounting framework;
- They are more expensive in the long run;
- Risk transfer is a myth;
- There is selection bias;
- They distort the procurement process;
- They are prone to monopoly capture;
- There is a lack of transparency and accountability, leading to corruption;
- They have an uncertain impact on poverty, inequality and sustainable development.

Concluding remark

PPPs are not a simple panacea or a "silver bullet" to fill the huge financial gap in infrastructure investment. Caution should be applied in using PPPs to address SDG commitments. PPPs should be carefully designed with appropriate risk sharing to prevent contingent fiscal liabilities and ensure inclusive access. Proposed PPP projects should be compared with the alternative of public sector delivery, with value-for-money estimations broadened to include a full public impact analysis.

Besides appropriate risk sharing, the partnership should improve the private sector's contribution to sustainable development through the implementation of internationally agreed principles and guidelines, including the UN Guiding Principles on Business and Human Rights. In this regard, private partners' corporate social responsibility (CSR), including commitment not to engage in tax-shifting through inappropriate transfer pricing, is vital.

To ensure PPPs are an effective instrument in achieving sustainable development goals, it is critical that countries have an institutional capacity to create, manage and evaluate PPPs, especially in relation to other possible sources of funding. For a number of developing countries, such as Lao PDR, this would require assistance from the international community in the form of technical support and capacity building.

Source: "Public-Private Partnerships and the 2030 Agenda for Sustainable Development: Fit for purpose?", UN-DESA Working Paper, No. 148:

http://www.un.org/esa/desa/papers/2016/wp148_2016.pdf.

Macroeconomic Policies for Human Development and Diversification

Lao PDR's sustained growth in the recent past has been underpinned by a stable macroeconomic environment, characterized by low inflation and budget deficit. The 8th Five-Year NSEDP laid out the direction of macroeconomic management as follows (p. 95):

- Maintain the inflation rate within reasonable limits;
- Manage the exchange rates to sustain a stable monetary situation and advantageous position for competitiveness;
- Manage the internal debts (government and public) and decrease foreign debts step by step;
- Improve and enforce measures to enhance financial and monetary liquidity;
- Increase foreign exchange reserves;
- Build up state reserves to secure the contingencies and urgent payments, such as post natural disasters.

This broad framework seems to be consistent with striking a balance between stability and the developmental objectives of macroeconomic policies. For example, the IMF's Article IV states, "each member shall: (i) endeavor to direct its economic and financial policies toward the objective of fostering orderly economic growth with reasonable price stability, with due regard to its circumstances; (ii) seek to promote stability by fostering orderly underlying economic and financial conditions and a monetary system that does not tend to produce erratic disruptions ..."

Tight monetary policy to maintain a predetermined inflation target without regard to the sources of inflation may unduly check demand, even for necessary long-term industrial investment, and thus hamper economic growth. In the wake of the 2008-2009 global financial crisis, both Dominique Strauss-Kahn, former Managing Director, and Olivier Blanchard, former Chief Economist of the IMF, criticized the *one policy one instrument* approach of bluntly using the interest rate to tackle all kinds of inflation. They also raised doubt about the conventional view of a low inflation strategy.¹³³

The joint Development Committee of the World Bank and IMF has laid down some guidelines for designing fiscal policy that balances stabilization and developmental roles. It notes, “The fiscal deficit is a useful indicator for purposes of stabilization and for controlling the growth of government liabilities, but it offers little indication of longer term effects on government assets or on economic growth . . . Fiscal policy that neglects these effects runs the risk of achieving stability while potentially undermining long-term growth and poverty reduction.”¹³⁴

Therefore, Lao PDR needs to avoid targeting a fixed inflation or debt (deficit) target regardless of prevailing circumstances. It would be better to try to calibrate monetary policy aimed at a range rather than a point estimate of inflation, taking into account the roles of sectoral relative prices (e.g. internal terms of trade between agriculture and manufacturing) and access to finance (especially of SMEs) in diversification of the economy.

The often suggested inflation or debt (deficit) targets are based on some historical median values or norms, and not from any rigorous empirical exercise; they do not imply any optimality. More importantly, strict adherence to some predetermined targets makes macroeconomic policies pro-cyclical and hence exacerbates vulnerability, as was seen during the 1997-1998 Asian financial crisis and the recent global financial crisis. Recent research in the IMF has concluded that pro-cyclical macroeconomic policies have contributed to increased vulnerability and rising inequality.¹³⁵

In its *World Economic Outlook 2012* (p. 109) the IMF noted, “There is no simple relationship between debt and growth. In fact, our subsequent analysis emphasizes that there are many factors that matter for a country’s growth and debt performance. Moreover, there is no single threshold for debt ratios that can delineate the ‘bad’ from the ‘good’.” In its *World Economic Outlook 2015*, the IMF also reported that debt-financed public investment in infrastructure, education, health and social protection boosts aggregate demand and productivity.

Therefore, it is important to focus on the use and efficiency of public debt, and not just on its aggregate value. It is also important to keep an eye on external debts as they are more risky due to sudden changes in the global economy that may see sharp rises in interest rates, severe falls in export earnings or large depreciation of exchange rates.

The choice between fiscal and monetary policies must be based not only on economic but also on social and political considerations. While both sets of policy impinge on effective demand, they are likely to produce significantly different effects on virtually every element of the community. This would, thus, require rigorous empirical studies on distributional consequences of fiscal and monetary policy instruments, especially when Lao PDR is experiencing a rising trend in vertical and horizontal inequality.

Research within the IMF has found that capital account liberalization has contributed to financial instability (crisis) and the rise in inequality.¹³⁶ Capital flows management is a sovereign right of a country under the IMF’s Article of Agreement (Article VI). Both the IMF and World Bank have now recognized capital flow management as an essential macroeconomic policy tool,¹³⁷ and the IMF has suggested a range of tools for managing capital flows.¹³⁸

Asia-Pacific countries have already introduced several measures to manage excessive short-term capital flows while still encouraging FDI. Therefore, capital account openness should not be viewed as an all-or-nothing proposition. Capital account can be open to equity flows—both portfolio and FDI—even when money and bond flows are managed.

Many Asia-Pacific countries, including Bangladesh, have accumulated foreign exchange reserves as a precautionary measure against volatile capital flows. However, it also has opportunity cost—foreign exchange reserves could have been used for social investment.

Lao PDR may not need to accumulate foreign exchange reserves for precautionary reasons in excess of what is needed to cover imports. In general, a low-income country should have foreign exchange reserves equivalent to at least three months of import coverage. As a member of ASEAN, which has developed a regional financial safety net through the Chiang Mai Initiative Multilateralization, Lao PDR should have an access to liquidity if needed. But reserve accumulation allows countries to keep the exchange rate undervalued to boost exports. An undervalued exchange rate can be a potent tool for economic diversification.

There is considerable debate about the efficacy of industrial policy, in particular policy instruments, such as tax rebates and subsidies, or government procurements, in picking “winners”. These policy instruments are vulnerable to capture by interest groups and can lead to rent-seeking. Critiques of industrial policy often point to the failures mainly attributable to rent-seeking and the difficulties of picking winners.

However, as the experience of successful countries shows, use of the exchange rate as an industrial policy instrument can avoid these pitfalls. The exchange rate affects the entire economy as it applies uniformly, providing stimuli to all producers of tradables at the expense of real wages (consumption) and non-tradables. To be able to use an undervalued exchange rate as an effective industrial policy tool, however, a country needs to be able to accumulate foreign exchange reserves and manage them judiciously.

Box 5.2: A Tale of Two Landlocked Countries – What Can Lao PDR Learn?

Botswana

Resource-rich, landlocked Botswana, with a small population of two million, graduated from LDC status in 1994. It has been hailed for its conventional macroeconomic policies targeting inflation not exceeding 5% and attaining budget surplus if possible. Macroeconomic stability underpinned Botswana’s economic growth to turn it from one of the poorest countries in Africa to one of the fastest growing economies in the world, which moved it into the ranks of upper-middle-income countries. In its latest country assessment report, the World Bank has described it as a “development success story”.^a

However, Botswana’s strict adherence to predetermined inflation and deficit targets made its growth unstable and it fluctuated wildly, rising from 0.25% in 2001 to 8.7% in 2007, but dropping to -7.6% in 2009 when the world economy was hit by a financial crisis. After recovering to 9.3% in 2013, it plunged again to -0.3% in 2015. Botswana’s economic structure remains inadequately diversified, with manufacturing contributing only 4.2% to GDP and the mining sector 30.2%; diamonds constitute nearly 70% of total exports. The country’s CO₂ emissions rose from 1.513 tonnes per capita in 1991 to 2.323 tonnes in 2011.

Botswana also paid very heavily in terms of insufficient levels of human development. Life expectancy dropped sharply from 64.3 years in 1998 to 48.69 years in 2001, during the period of fiscal consolidation when public expenditure on health was cut, rendering it inadequate to handle the ongoing HIV/AIDS epidemic. Life expectancy has improved since then but still remains below the pre-epidemic years.

The shrinking of public social expenditure also saw rising inequality, making it one of the most unequal countries in the world with a Gini coefficient of 0.61. The rising inequality slashed its HAI value by 38.2%—from 0.698 to 0.431.

Uzbekistan

On the other hand, Uzbekistan, one of two (the other being Liechtenstein) double-landlocked countries, suffered severely following the collapse of the Soviet Union, recording a contraction of over 11% in 1992. But its economy began to grow from 1996, averaging over 4% since 1997 and, by 2001, its GDP was 3% above the 1989 level. Its economy is now more diversified, with industry's contribution to GDP having risen from around 10% in the late 1990s to 24% in 2015. The country's dependence on agriculture (cotton) declined significantly. As a result, its growth has been more stable, dropping only marginally from 9.5% in 2007 to 8.1% in 2009. Since the global financial crisis, Uzbekistan has maintained an average annual growth rate of around 8%. Uzbekistan's CO₂ emissions declined from 5.467 tonnes per capita in 1993 to 3.693 tonnes in 2010.

Uzbekistan has also had significant success in human development. Unlike other former Soviet Republics, it did not experience a decline in life expectancy; rather, life expectancy steadily rose to 73 years by 2012. Uzbekistan also reversed inequality trends. According to World Bank estimates, Uzbekistan's Gini coefficient was 0.35-0.36 in 2002-2003.

Uzbekistan achieved these impressive results by going against the current. It chose not to follow strict austerity policies characterized by cuts in social expenditure. Instead, it expanded social support schemes to protect living standards, particularly of the poor and elderly. Neither did it engage in rushed liberalization, deregulation and privatization. Instead it continued supporting productive activities through public infrastructure investment, cheaper credit to priority sectors and guaranteed prices for producing state-determined quota of food and other crops.

Yet Uzbekistan's public deficit did not blow out, falling from 18.3% of GDP in 1992 to 3% of GDP after 1996. Uzbekistan's inflation rate declined from the peak of 1,457% in 1994 to about 18% in 1998. Its external public debt declined steadily from 49% of GDP in 2003 to 17% in 2014, requiring only 5% of export income for debt servicing.

In 1993, the World Bank warned of "unnecessary hardship on the population in the medium term represented by a decline in consumption per capita of no less than 30 percent by 1997" due to Uzbekistan's unorthodox policies.^b But in 2000 it recognized that Uzbekistan's economic performance was superior to those transition countries in the region which followed conventional policies.^c In 1998 the IMF described Uzbekistan's performance as "puzzling" despite its "hesitant and idiosyncratic reforms".^d

On the demand side, Uzbekistan's contraction after 1992 was cushioned by rising public investment, small declines in government purchases and expanded social protection and income transfers. It was further aided by the control of luxury imports as the expanding middle class was forced to spend on domestically produced goods.

On the supply side, Uzbekistan boosted growth through industry policy supported by cheap credit from state-controlled banks, favourable access to foreign exchange for importation of industrial raw materials and capital goods, aided by agricultural policy of state procurement, guaranteed price and subsidized inputs. The under-valued exchange rate aided by accumulation of foreign exchange boosted exports.

An undisputable success of Uzbekistan during the transition period was that fiscal balance was achieved without squeezing pro-poor or pro-growth public expenditures which absorbed more than 22% of GDP in 1995.^e Uzbekistan's public expenditure on social protection was 11.16% of GDP in 2010 compared with Botswana's 6.59%. It has a comprehensive scope of legal coverage in all eight areas of social protection as opposed to Botswana's limited legal coverage in only four areas.

Notes:

a. <http://www.worldbank.org/en/country/botswana/overview> (Last Updated: 12 April, 2016).

b. World Bank (1993a, p. xx).

c. Alam and Banerji (2000).

d. Zettelmeyer (1998).

e. Cornia (2004).

Action Agenda for Human Development and Smooth Graduation

Of the three criteria for LDC graduation, Lao PDR is most lacking in economic vulnerability, followed by human asset. Human development plays a critical role in addressing both deficits. While elements of human development overlap with the indicators of human asset, Lao PDR needs to develop human capital to diversify its economy in order to reduce vulnerability. The action agenda below is drawn from the policy implications that have been identified in each of the foregoing chapters. They relate to enhancing human development and thereby human asset and economic diversification for Lao PDR's smooth graduation out of LDC status.

Enhancing Human Asset by Harnessing Demographic Dividend

Early Childhood Development

- Expand and strengthen early childhood development and education to help develop school readiness skills and basic cognitive and behavioural skills;
- Increase efforts to reduce chronic malnutrition, which threatens cognitive development;
- Ensure that all children can read by the end of grade 2, making reading a national obsession so that Lao PDR can build a skilled and productive workforce.

Skills Gap and Education Quality

- Develop an overarching youth policy to realize the full potential of youth and demographic opportunities;
- Resolve the current mismatch between labour market needs and young people's education and skills;
- Upgrade the education and skills of the young population to meet the demand for medium-skilled and highly skilled workers generated by AEC entry;
- Take a more strategic role in vocational skills development by developing policies and setting standards;
- Improve teacher quality, teacher training programmes and teacher distribution;
- Invest in training materials and instructors, and carry out regular training evaluations.

Health and Nutrition

- Strengthen existing Health Equity Fund (HEF) schemes and free delivery of maternal, neonatal and child health care ("free MNCH");
- Increase efforts to achieve the goals of the ongoing health sector reform, notably in human resources, health financing and health system governance;
- Lay the foundation for a national programme and move towards universal health coverage.

Poverty and Vulnerability

- Develop a sustainable universal social protection floor to protect households from falling back

into poverty and safeguard the progress made so far;

- Urgently consider the recommendations of Assessment-Based National Dialogue on Social Protection (ABND) carried out under the oversight of the Government's Drafting Committee for the National Social Protection Strategy;
- Tackle multiple deprivation by improving other aspects of human welfare that have long-lasting effects on poverty;
- Invest to bridge the gap in human development outcomes such as schooling and health, even when monetary poverty is reduced.

Diversifying the Economy to Reduce Vulnerability

Agricultural Productivity

- Increase public expenditures on irrigation, rural roads, agricultural research, extension services and other public goods;
- Promote agricultural modernization through expanding irrigation, spreading modern seed/fertiliser technologies, adopting farming systems approaches, etc.;
- Reconsider approaches in expanding irrigation. Irrigation should not be large dams alone; a combination of small, medium and large irrigation methods is required;
- In addition to extension services, provide farmers with marketing services including market information, packaging, and certifications. There needs to be clear definition of roles and responsibility between agricultural promotion authorities and commerce authorities in providing these services;
- Carefully examine the policy of large agricultural concessions, as they do little to create jobs and do not seem to encourage farm labour to migrate for non-farm jobs and to produce spillover effects to smallholders, e.g. through technology transfer;
- Help Lao rice farmers slowly diversify into high-value rice production or other crops, such as specialty coffee and organic products;
- Take steps such as cadastral exercises to provide title deeds to farmers, improving farmers' access to financial services (savings, credit and insurance) and providing better integration with markets, which are likely to contribute to higher farm income and stability.

Manufacturing Sector Development

- Prevent upward pressure on wages and the exchange rate coming from large inflows of FDI in the resource sector, to ensure the rise in wages is commensurate with productivity gains to prevent a rise in unit labour cost and fall in profitability;
- Build up foreign exchange reserves from resource-sector windfalls to keep the exchange rate undervalued to support export-oriented manufacturing;
- Improve access to finance and other modern services, such as electricity, especially for SMEs;

- Strengthen backward and forward linkages by encouraging larger manufacturing firms, especially foreign-owned ones, for local procurement, particularly from SMEs.

Services Sector Enhancement

- Improve the quality and range of services for achieving economy-wide gains in productivity and competitiveness;
- Invest in hard and soft infrastructure, particularly in transport and energy, including electricity, water and internet connectivity;
- Make regional liberalization commitments, e.g. ASEAN Framework Agreement on Services (AFAS) compatible with multilateral ones (with GATS/WTO);
- Complement openness with sound regulatory reforms to help materialize the gains;
- Support the implementation of reforms in the services sector by empowering relevant agencies with adequate financial resources and skilled staff.

Governance

- Improve the business climate by streamlining and simplifying the business compliance and transaction costs associated with dealing with the government;
- Improve transparency in the provision of public sector services to business through measures such as publication of all fee schedules, permits and licensing requirements;
- Establish a more predictable playing field for the private sector, with consistent implementation of publicly available legislation, rules and regulations, and with reduced bureaucratic discretion.

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Endnotes

- 1 World Bank's Financial Inclusion Data: <http://datatopics.worldbank.org/financialinclusion/country/lao-pdr>.
- 2 The Committee for Development Policy (CDP)—a subsidiary body of the United Nations Economic and Social Council (ECOSOC)—is responsible for undertaking a review of the list of LDCs. It is composed of independent experts. The status of a country as a LDC does not depend on its income level. Although the World Bank's classification of countries as low income to some extent overlap with the UN's LDC classification, a middle-income or lower-middle-income country may still be an LDC, depending on the other two criteria.
- 3 Report of the Fourth United Nations Conference on the Least Developed Countries, Istanbul, Turkey, 9-13 May 2011, United Nations, New York <http://www.un.org/wcm/webdav/site/ldc/shared/Report%20of%20the%20Istanbul%20Conference.pdf>.
- 4 Other reasons could be the strategic location of some countries, security considerations, and so on.
- 5 For a more recent and comprehensive discussion on this topic, see Mehrotra (2015), especially Chapters 1 and 2.
- 6 The UNDP has been changing the definitions of these from time to time, suggesting that the definitions of HD-related variables could be highly flexible and can be modified to suit specific circumstances and times. For the latest method, see UNDP (2015).
- 7 Singapore and Brunei are excluded since they are high-income countries within ASEAN.
- 8 Close economic partnerships between unequal countries have resulted in failures in the past. Mexico and the US in NAFTA and Greece and Germany in the EU are examples.
- 9 For computation methods, see UNDP (2010). While GII is a new index, developed in 2010, GDI has been redefined since 2010.
- 10 The coefficient of variation (COV) is the ratio of standard deviation to mean, multiplied by 100. It shows the extent of variation around the mean—the larger this ratio, the larger is the variation (lower central tendency), and vice versa. Generally, a value less than 5% is considered a small variation and one above 10% a high variation. See <https://www.westgard.com/lesson34.htm#6>.
- 11 See, Dasgupta (1995); Becker (1962, 1993); Schultz (1963); World Bank (1993, 1995); Kumar and Fukuda-Parr (eds) (2004).
- 12 Data sources: LECS-3 and LECS-5.
- 13 Data source: LECS-5.
- 14 Data source: Ministry of Education, EMIS (Education Management Information Systems) databases.
- 15 Insufficient food intake, thereby insufficient nutrition, is one of the components of the poverty line. Evidently, it is lower than the overall poverty line, which has a component of non-food items as well. A food-poor person consumes less than the required minimum and, hence, is undernourished. Data Source for computations: LECS-5.
- 16 Underweight: less weight for age; Stunted: less height for age; Wasted: less weight for height. See GOL (2012).
- 17 The Lao authorities have been monitoring poverty since the early 1990s, by which they conduct five-yearly sample surveys. These surveys, known as the Lao Expenditure and Consumption Surveys (LECS), are conducted using representative samples to provide estimates for the whole country and now also for the provinces. Five such surveys have been conducted to date: in 1992-1993 (LECS-1), 1997-1998 (LECS-2), 2002-2003 (LECS-3), 2007-2008 (LECS-4) and 2012-2013 (LECS-5).

18 The national poverty line is calculated on a nutritional basis. An adult must be able to consume an equivalent of 2,100 kilocalories a day to be above the poverty line. S/he should also have access to some non-food necessities. First, the monetary equivalent of 2,100 kilocalories of food (from a defined basket) is calculated, and then allowances for non-food items are calculated. The sum of these two is the poverty line. Each time a survey is conducted, the poverty line is adjusted for inflation. No new poverty line has been defined for over two decades. Lao PDR follows the World Bank's method of measuring poverty.

19 Epprecht et al.(2008).

20 The poverty gap index is a percentage between 0% and 100%. Sometimes it is reported as a fraction, between 0 and 1. A theoretical value of zero implies that no one in the population is below the poverty line. A theoretical value of 100% implies that everyone in the population has zero income. See Foster and Thorbecke (1984).

21 Pimhidzai (2015).

22 Pimhidzai et al. (2014).

23 Piketty (2012); Atkinson (2015); Stiglitz (2012).

24 World Bank (2014a).

25 Warr, Rasphone and Menon (2015).

26 GOL (2014a). Data from the LAC rather than the administrative data reported by the ministry concerned are preferred since the samples in the former are larger and the methods of data collection available in the public domain.

27 Figure 2.2 presents 'hours worked' rather than 'workers engaged', since that is how the LECS report data. The population census of 2015, in which the number of workers by sector are calculated, is not yet available in the public domain.

28 Data are from LECS-3 and LECS-5.

29 Ministry of Agriculture and Forestry (MAF) sources suggest an annual growth in the yield rates in paddy by some 1.5% through this period. But paddy alone is not all of agriculture. Also, the MAF methods of data collection using crop-cutting surveys are different from the recall methods deployed by the LAC. These differences, however, do not change the overall arguments.

30 These are field observations made in three provinces, Xiengkhuang, Sekong and Savannakhet.

31 Source: GOL (2016) and NERI (2014) for data on investments and employment.

32 There is a similar discussion reported for most resource-rich African countries. See UNECA (2015).

33 Structural transformation is defined as the reallocation of economic activity across three broad sectors (agriculture, manufacturing, and services) that accompanies the process of modern economic growth. There is a large body of literature on structural transformation. The classic works are: Clark (1957); Chenery (1960); Kuznets (1966); Syrquin (1988).

34 But structural transformation is not without problems. Even successful cases have witnessed rising inequalities, with the exception of the newly industrializing countries of East Asia during their early phase. Radical land reform and labour-intensive industrialization played a significant role in producing shared growth in East Asia.

35 Chapter 1 discusses the HD indices. For more details on LDCs, including Lao PDR, see UNCTAD (2015); Committee for Development Policy (2015).

36 The Committee for Development Policy (CDP)—the UN agency entrusted with preparing LDC reports—chooses GNI rather than GDP since GNI measures the actual incomes net of all the repatriations. This is despite the fact that Lao PDR and many other LDCs do not formally compute the GNI (or GNP).

37 When classified as an LDC, a country has the options to benefit from the global and regional multilateral agencies and from bilateral treaties with OECD countries in a number of areas, as listed in Box 2.3.

38 For a critique and extended discussion on the LDC groupings, see Alonso et al. (2014).

39 Normally, there is about a two-year time lag in data used for computations. The calculations made in 2015 were based on data pertaining to 2013/2014.

40 See Oraboune (2015).

41 Lao PDR does not calculate GNI. The World Bank prepares its own estimates of GNI based on its methodology and databases obtained from the country. However, the two series have a very close correspondence. Thus, if GDP grows at 7.5-8% annually, GNI is also seen to grow in a similar proportion; so forecasting is possible based on GDP numbers.

42 While it should have been normally possible to make adjustments to make the two databases comparable, this is not done since the CDP has chosen to use the data as they were, and the Government at that time did not make any suggestions to make the data comparable.

43 Forecasts have been made in the past as well. For example, see Kawamara (2014). This paper was based on old data; hence, its forecasts for Lao PDR did not work out to be accurate. Forecasts made here are based on more recent data and are expected to be realistic.

44 Marginal coefficients rather than elasticity values are preferred since the units of measurement are pre-fixed and both should provide the same results.

45 For example, Chinese, Korean and Indian students were receiving a large number of scholarships from Western countries until about 20-25 years ago. Compared with earlier periods, many more students are now going to study in the West despite the fact that the number of scholarships has shrunk drastically. They are using their own resources. This is a new form of partnership—‘Knowledge for Money’. Lao PDR may have to adopt options that have some exchange components rather than one-way flows.

46 The EU’s ‘Anything but Arms’ is a part of the GSP, enforced since 2001. See Clauses 12 and 13 of the GSP.

47 There is very little formal trade between the US and Lao PDR. The EU laws require the beneficiary countries to adopt ‘sustainable development’ as defined by global conventions: the 1986 UN Declaration on the Right to Development, the 1992 Rio Declaration on Environment and Development, the 1998 ILO Declaration on Fundamental Principles and Rights at Work, the 2000 UN Millennium Declaration, and the 2002 Johannesburg Declaration on Sustainable Development. For details, see <http://www.brecorder.com/articles-a-letters/187:articles/1257528:gsp-plus-status-what-does-it-imply/?date=2014-12-30>.

48 This section relies on ‘mirror data’ on exports, implying data compiled on imports from Lao PDR to other countries. This is because official export data in Lao PDR are found wanting on many counts. There is official sanction from the government authorities to use these data.

49 See Yin (2012).

50 Nolintha and Jajri (2015).

51 See the site where this sanction is stated, at <http://pbc.org.pk/a-road-map-for-optimizing-pakistans-gsp-plus-status/>.

52 Separate data on coffee alone are not readily available in the ‘mirror’ dataset. It is grouped with tea and spices. But closer scrutiny suggests that coffee composes over 78% in the (coffee + spices) group. For details on the coffee sector in Lao PDR, see also Southichack (2009).

53 See “Coffee Growers Reap Bitter Harvest”, *Asia News Network*, Oct 24, 2013; and Chapman (n.d.).

54 For the quote, see <http://www.bloomberg.com/news/articles/2014-03-12/coffee-cravers-ignoring-bean-price-surge-for-caffeine-fix>.

55 The framework of assistance in various programme of action for LDCs is summarized in Appendix 2.2.

56 This section starts with a caution: The data presented in this section have been drawn from the Aid Management Platform (AMP) Database. These data might not include all the assistance that the country receives, by source or use. DPs transfer funds to different agencies for project implementation: The Ministry

- of Finance (i.e. through the budgetary process), line ministries, provinces, or even directly to implementing companies and contractors. Accounting for all these inflows from multiple agencies is not easy, particularly when even the reporting formats differ across countries. See <http://ppamp.mpi.gov.la/portal/>.
- 57 See GOL (2015).
- 58 Trust funds are created by DP agencies/countries and entrusted with independent managers. They are usually multi-source contributions and the funds are earmarked for specific purposes, such as meeting MDG targets, fighting AIDS, etc. Trust funds offer loans as well as grants. They also serve special purposes that are difficult to meet under bilateral assistance.
- 59 The inference is tentative since, as stated in the text, the database is not complete.
- 60 Medical doctors, dentists, nurses, architects, engineers, accountants, surveyors and tourism professionals. However, these eight professions only account for 1.5% of the total ASEAN workforce. ASEAN Mutual Recognition Agreements (MRAs) do not enable eligible professionals to move perfectly freely around ASEAN, as many countries have instituted a priority for their own citizens.
- 61 See Das et al. (eds) (2014).
- 62 Skilled Asian workers from China and India and also other South Asian countries have out-migrated to the West, seeking higher earnings. Such a movement of skilled people is thus a proven fact. Even Singapore is losing highly skilled workers to the West.
- 63 See Lindsay Lowell, B. and Allan Findlay (2001), “Migration of Highly Skilled Persons from Developing Countries: Impact and Policy Responses”, International Migration Papers, No. 44, ILO; Katseli, Louka T., Robert E.B. Lucas and Theodora Xenogiani (2006), “Effects of Migration on Sending Countries: What Do We Know?”, Population Division, Department of Economic and Social Affairs, United Nations Secretariat, UN/POP/MIG/SYMP/2006/11/Rev.
- 64 Components of education (secondary school) and health indicators (nutrition and U5MR) are constituents of the HAI in the LDC indices. Refer to the Introduction.
- 65 The right to development was proclaimed in the Declaration on the Right to Development, adopted in 1986 by the UN General Assembly (GA) in its resolution 41/128. “The right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized.” (Article 1.1, Declaration on the Right to Development).
- 66 World Bank (2014).
- 67 The Ministry of Education and Sports (MOES) collects and collates data on school education based on school records. This is a part of its M&E system. The data are available in the public domain, as the Educational Management Information Management System (EMIS). EMIS could overestimate enrolment, since many enrol but do not attend.
- 68 The Lao Social Indicator Survey (LSIS) 2010/2011 reports that the numbers are similar, at 37%. LECS-5 reports lower numbers. Part of the reason could be the difference in the years and part could relate to definition, e.g. LECS asks the respondents whether the child is presently in school on the day of the interview, which is not the same as extracting numbers from school registers.
- 69 Community-led total sanitation (CLTS) is an approach to achieve sustained behaviour change in mainly rural people by a process of ‘triggering’ leading to spontaneous and long-term abandonment of open defecation practices. It was first applied by Kamal Kar in Bangladesh in 2000. UNICEF introduced a similar campaign programme, WASH (Water, Sanitation and Hygiene) in Lao PDR. For details on such campaigns, see http://www.unicef.org/laos/RAISING_CLEAN_HANDS_IN_LAO_PDR_WEB.pdf.
- 70 Source: EMIS database.
- 71 Studies in other countries suggest that overage children drop out due to malnutrition and poor health,

cultural factors, perceptions of the utility of education, and these children being out of place among the younger group. See Akyeampong, Westbrook and Hunt (2010).

72 Incomplete schools are those in which the buildings are not complete, there are no toilets or water, etc.

73 Source: Key Informant Interview with officers of the Department of Education and Sport, in Xiengkouang Province.

74 In multi-grade classes the same teacher teaches more than one grade of students and also different subjects in the same classroom and at the same time.

75 This is based on Key Informant Interview with officers of the Department of Education and Sport in Xiengkouang Province.

76 A note of caution: LECS-5 figures do not match with those from EMIS; hence, comparisons of absolute numbers or data merger should be avoided.

77 Key informants in Xiengkouang and Sekong informed the researchers that children are compelled to quit the secondary school stream to support their household's livelihood. Parents from poor households do not see future returns on education at the upper levels, because their time horizon is rather short and their knowledge base about the labour markets is limited. Also, the culture in some ethnic communities requires that girls should be married at a younger age. Thus, young ethnic girls are compelled to drop out of school.

78 The first adult literacy programme was initiated sometime in the 1990s and continued until about 2010. There is insufficient information on this programme's performance as there is no publicly available independent evaluation study report. Also, EMIS does not collect information on it. However, it seems that the programme has not been particularly successful, since the adult literacy rates continue to be relatively low, as can be seen from the Population Census and other survey results.

79 Appendix 3.1 contains a brief on the status of other diseases.

80 Reference is made to the MDGs and not the SDGs since the data pertain to the period prior to 2015. Also, newer national targets for SDGs are yet to be set.

81 These assertions are made based on different government and Lao Statistical Bureau reports.

82 Source: Pimhidzai et al (2014).

83 See NERI (2014, p. 10).

84 See NERI (2014), op cit.

85 Report on Health Village Establishment 2013-2014, Lao PDR Department of Hygiene and Health Promotion. The ADB has tried to integrate water and sanitation schemes with the model village schemes; see ADB (2015).

86 The project has four major components: (i) strengthening village capacity in planning, implementing and managing primary healthcare activities; (ii) improving village infrastructure for 'healthy environments'; (iii) strengthening the capacity of districts and health centres to support village-level primary health; and (iv) project management and coordination.

87 See Rosenblatt and Hart (2000); Washburn and Brown (2015).

88 This section draws extensively on GOL (2009). Data pertain to 2006, but later data are not available, as the LSIS does not make even the raw data on malnutrition among adults publicly available.

89 LSIS 2010-2011 data suggest that some 59% of children were provided with nutrition supplements in that year. It is hoped that this would have reduced the Vitamin A deficiency.

90 Experiments have been done in Africa to convert human waste into fertilisers. See <http://www.scidev.net/global/agriculture/multimedia/human-waste-disease-free-fertiliser.html>.

91 Source: Ministry of Health Report on 2013-2014 Plan Implementation, Centre for Parasitology, Entomology and Malaria Control, Vientiane.

92 Small populations are not a problem if the concerned countries are well integrated with others in terms

- of markets, transport, communications, etc. Some of the most developed countries, such as Switzerland, Sweden, Norway, Finland, Iceland, Denmark and Luxembourg, have small populations (<10 million).
- 93 For a brief overview of Lao agriculture, see Appendix 4.1.
- 94 See Zhang, Yang and Reardon (2015); Mandal and Maity (2013); and Goyle (2013).
- 95 Data on irrigation on all agricultural land are not readily available in the public domain. Only those on paddy irrigation are published.
- 96 Even in very high rainfall conditions, the high yielding varieties require some protective irrigation before the crop dries (for harvest), or when rains are delayed even by a few days; see Barker and Molle (2004). In Vietnam, irrigated land exceeds 80%, in Thailand 25%, in Cambodia 35%, and so on, of the total paddy land. Paddy yields in Vietnam exceed 4-5 tonnes/ha.
- 97 Large (gravity-based) irrigation dam projects are most useful when the command areas are almost flat or sloping gently and the catchment is from either rivers or waters flowing in from undulating terrains located upstream. A large part of Lao PDR's command area does not fall into this category.
- 98 Example: For certain crops in horticulture and fruits (grapes), drip irrigation is best. Sprinkler irrigation is suited for most row, field and tree crops, where water can be sprayed over or under the crop canopy.
- 99 It is not that Lao PDR's farmers do not appreciate the importance of small and medium-sized irrigation methods. Remnants of previously constructed localized irrigation structures for smaller areas up to 10-50 ha have been found in the north and north-west provinces, but are presently in a state of disuse as the state policy has favoured larger projects in the last few years. This was reported in personal conversations at NAFRI.
- 100 Limaye (n.d.).
- 101 It is easy to provide 100 loan packages of \$10,000 each, but far more difficult to provide 10,000 loan packages of \$100 each. This is because the overhead costs skyrocket and monitoring becomes very difficult for the latter, in a conventional banking system.
- 102 See APB's website: <http://apb.com.la/show.php?id=14>.
- 103 See ACLEDA's Lao website: <http://www.acledabank.com.la/la/eng/>.
- 104 See Nayoby Bank's website: <http://www.nbb.lao.org/ELVS/home.php>.
- 105 See, for example, Falola, Kayode and Omonlumhen (2012); and Rivera and Cary (2015).
- 106 The notion of a demand-led dialogue between extension workers and farmers was obtained from conversations with FAO in Lao PDR.
- 107 The difference is perhaps due to the question asked by the data collecting agency. In LECS, the question posed was, 'Did an extension worker visit the village?', while the question in the said census was, 'Where did you get technical advice from ...?'
- 108 Efforts have been made to resettle certain communities practising swidden. These populations are brought from the mountainous terrains to settle on the plains. However, the effort has not been very successful as the resettled populations have little idea of how to manage the lands and livestock on the plains. The absence of non-timber forest produce on the plains had worsened their livelihoods. In the face of these problems they soon shift back into the hills. See Souvanthong (1995).
- 109 Some classical references on this are Timmer (1986) and Mellor and Ahmed (1988).
- 110 Some 25-30% of the farmers in Lao PDR have been organized into groups. These groups can take up this task with some assistance from government outlets at the local levels. See Box 4.5.
- 111 The 1st Five-Year Plan (1980-1985) was adopted in 1980.
- 112 Officially approved at the 8th National Assembly's Inaugural Session, 20-23 April, 2016.
- 113 No data are available on whether it was completed by the end of 2015.
- 114 Varela, Gonzalo, Claire H. Hollweg and Laura Gomez-Mera (2016).

- 115 Schiller, Hatsadong and Doungsila (2006).
- 116 For a scientific analysis of soil degradation, erosion and natural disasters, see Mandych (2006).
- 117 See, *Tackling Illegal Logging and the Related Trade: What Progress and Where Next?* Chatham House, Royal Institute of International Affairs, London 2015: https://www.chathamhouse.org/publication/tackling-illegal-logging-and-related-trade-what-progress-and-where-next?gclid=Cj0KEQiAv5-zBRCAzfWGu-2jo70BEiQAJ_F8oHtoi4TZCrYIMMxrVUKsuGbdY7TWrgpLb_U2_PW3srkaAv338P8HAQ.
- 118 See *Vientiane Times*, June 6, 2015: http://www.vientianetimes.org.la/FreeContent/FreeContent_Timber_smuggling.htm.
- 119 Analysis of the empirical relationship between banking crises and financial liberalization in a panel of 53 countries for the period 1980-1995 shows that banking crises are more likely to occur in liberalized financial systems, especially when institutions are weak. See Demirgüç-Kunt and Detragiache (1998).
- 120 The phase ‘flying geese pattern of development’ was originally coined by Kaname Akamatsu. See Akamatsu (1961, 1962). See also Chowdhury and Islam (1993).
- 121 Figures quoted here are from UNDP (2016).
- 122 See Chowdhury and Islam (1993).
- 123 World Bank (2013).
- 124 World Bank (2014).
- 125 The Reserve Bank of India’s avowed objective has been to progressively deregulate the financial system to allow it to operate in an environment of competition and efficiency. But this has led to financial exclusion and stress for many farmers due to their rising indebtedness. After a series of farmers’ suicides, all banks are being urged to adopt ‘financial inclusion’ as an operational policy. See *Economic and Political Weekly*, 20 May, 2006.
- 126 In February 2013, Lao PDR completed its accession to the WTO.
- 127 See UNDP (2016).
- 128 ADB (2013).
- 129 Baunsgaard and Keen (2005).
- 130 OECD (2008) notes: “... while tax is recognized as being an important factor in decisions on where to invest, it is not the main determinant. FDI is attracted to countries offering: access to markets and profit opportunities; a predictable and non-discriminatory legal and regulatory framework; macroeconomic stability; skilled and responsive labour markets; and well-developed infrastructure. All of these factors will influence the long-term profitability of a project.” Similarly, a 2008 IMF research paper compared the costs of concessions in terms of revenues forgone with the benefits, which were marginal at best, in Caribbean countries. Forgone tax revenues ranged between 9.5% and 16% of GDP per year, whereas total FDI did not appear to depend on concessions. See Chai and Goyal (2008).
- 131 Indonesia, for example, imposed an export tax and, even more interestingly, a ban on exports of crude mineral ore. The aim was to force TNCs to carry out the processing of the raw materials in Indonesia, thus increasing the value added for the domestic economy. See UNCTAD (2014).
- 132 UNCTAD (2014) provides an extensive list of country examples where regulatory and fiscal regimes for the extractive industries have been changed.
- 133 Blanchard (2012); Strauss-Kahn (2011).
- 134 IMF-World Bank Development Committee (2006) p. i.
- 135 Ostry, Loungani, and Furceri (2016).
- 136 See Furceri and Loungani (2013).
- 137 IMF (2012); World Bank (2010).
- 138 Ostry et al. (2011). See also ESCAP/MPDD Policy Brief #12 for a discussion of the pros and cons of various techniques.



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