



LAO PEOPLE'S DEMOCRATIC REPUBLIC

SYSTEMATIC COUNTRY DIAGNOSTIC

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LAO PEOPLE'S DEMOCRATIC REPUBLIC

SYSTEMATIC COUNTRY DIAGNOSTIC

Priorities for Ending Poverty and Boosting Shared Prosperity

March 9, 2017

East Asia and Pacific Region

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Currency Equivalents

Exchange Rate Effective as of March 9, 2017

Currency Unit = Lao kip (LAK)

LAK 8,206 = US\$1.00

Fiscal Year = January to December

Acronyms and Abbreviations

ADB	Asian Development Bank	LECS	Laos Expenditure and
AEC	ASEAN Economic		Consumption Survey
	Community	LDC	Least Developed Country
BOL	Bank of Lao PDR	LSIS	Lao Social Indicator Survey
BOT	Build-Operate-Transfer	LSX	Lao Stock Exchange
CITES	Convention on International	MCH	Maternal and Child Health
	Trade in Endangered	MDG	Millennium Development
	Species		Goal
CPI	Corruption Perception	MFMod	Macro-Fiscal Model
	Index	MOF	Ministry of Finance
CPIA	Country Policy and	MRI	Magnetic Resonance Imaging
	Institutional Assessment	MSMEs	Micro, Small, and Medium
DOFI	Department of Forest		Enterprises
	Inspection	NPL	Non-performing Loan
DRM	Disaster Risk Management	NSEDP	National Socio-Economic
EAP	East Asia and Pacific		Development Plan
EdL	Electricité du Laos	NT2	Nam Theun 2
EGAT	Electricity Generation	ODA	Official Development
	Authority of Thailand		Assistance
EIA	Environmental Impact	OOP	Out-of-pocket
	Assessment	PEFC	Programme for the
ESMMP	Environmental Social		Endorsement of Certification
	Management and	PES	Payment for Environmental
	Monitoring Plan		Services
EU	European Union	PFM	Public Financial
EVI	Economic Vulnerability		Management
	Index	PPP	Purchasing Power Parity
FATF	Financial Action Task Force	RCEP	Regional Comprehensive
FDI	Foreign Direct Investment		Economic Partnership
FELDA	Federal Land Development	SCD	Systematic Country
	Authority		Diagnostic
FSC	Forest Stewardship Council	SDG	Sustainable Development
			Goal
GCR	Global Competitiveness	SEA	Strategic Environment
	Report		Assessment
GDP	Gross Domestic Product	SEZ	Special Economic Zone

GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit	SME	Small and Medium Enterprise
GNI	Gross National Income	SOE	State-owned Entity
HAI	Human Assets Index	STRI	Services Trade Restrictiveness Index
HEF	Health Equity Fund	TFP	Total Factor Productivity
ICA	Investment Climate Assessment	UHC	Universal Health Coverage
ICT	Information and Communication Technology	UN	United Nations
IFC	International Finance Corporation	UNESCO	United Nations Educational, Scientific, and Cultural Organization
IMF	International Monetary Fund	UNICEF	United Nations Children's Fund
IRR	Internal Rate of Return	UXO	Unexploded Ordnance
ISP	Integrated Spatial Planning	WEF	World Economic Forum
		WHO	World Health Organization
		WTO	World Trade Organization

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Key Findings and Recommendations

The Lao People's Democratic Republic has made significant development advances in recent years.

Gross domestic product (GDP) growth averaged 7.8 percent per year over the past decade, making Lao PDR the 13th fastest-growing economy globally. Incomes rose, poverty declined, and access to some basic services, including education, health, and infrastructure, improved considerably. Strong growth was mainly driven by a growing use of natural resources, gradual opening up, and integration in the region.

Quick facts:

- Lao PDR is now a lower-middle-income country with a gross national income (GNI) per capita of US\$1,740 in 2015.
- Extreme poverty fell from 46 percent in 1992 to 23 percent in 2012/13.
- Primary school enrollment rose from 58.8 percent in 1992 to 98.7 percent in 2011.
- Maternal and child mortality are now less than half of their levels in the early 1990s.
- Electrification now exceeds 90 percent of households.

Still, some development outcomes have fallen short of potential. The increase in incomes for most of the population was not commensurate to the GDP growth. This is due to growth being driven by natural resources where job creation was limited, stagnant productivity in agriculture where most of the labor force continues to be engaged, and the

Quick facts:

- 82 percent of workers are in agriculture or self-employment.
- Only 160,000 non-agriculture wage jobs in the private sector were created between 2002 and 2012.
- For every percent of GDP growth, poverty in Lao PDR declined by 0.4 percent.
- 44 percent of children under five were stunted in 2012.
- 35 percent of girls aged 18 were married.

creation of very few jobs out of agriculture. At the same time, revenue leakage and weak public financial management (PFM) prevented the sharing of benefits from the use of natural resources. Social norms and traditions further undermined progress. Consequently, poverty reduction was slower compared to peers, malnutrition continues to be high, and the risk of falling into poverty is real for a large part of the

population. Indicators are persistently worse for minority ethnic groups while a gender gap emerges in education and health.

A wide range of risks put into question the robustness of Lao PDR's development path.

Growing public debt burden, systemic risks in the financial sector, and low reserve buffers may test macroeconomic stability which can ignite inflation, lower living standards, and hurt public services delivery.

Quick facts:

- Public debt is approaching 70 percent of GDP.
- Number of banks, including state-owned banks, have low capital buffers and growing non-performing loans (NPLs).
- Forest cover has fallen from 70 percent in 1940 to around 40 percent of the territory in 2010.
- Cost of environment degradation exceeded 7 percent of GDP in 2013.

Continued environmental degradation will hurt livelihoods and undermine growth prospects, and together with climate change will increase the already high risks from natural disasters. If any of these risks materialize, the poor are likely to be most affected as they have the least options to mitigate risks.

Looking ahead, the report identifies three pathways through which the country can achieve more inclusive growth. For resource-rich economies like Lao PDR, it is very important to advance integration, get a fair share of resource rents, and convert these into human and physical assets. To accomplish this, progress will be needed on the three pathways: (a) sustainable and efficient management of natural resources, (b) unlocking the potential in non-resource sectors, and (c) building the assets of the people to be able to take on increased opportunities as well as mitigate risks and protect gains. With resource rents making institutions more vulnerable to capture, the Systematic Country Diagnostic (SCD) argues for strengthening key institutions as a cross-cutting theme, including the institutions to manage macroeconomic volatility, strengthen accountability of service providers, and ensure a level-playing field and promote competition.

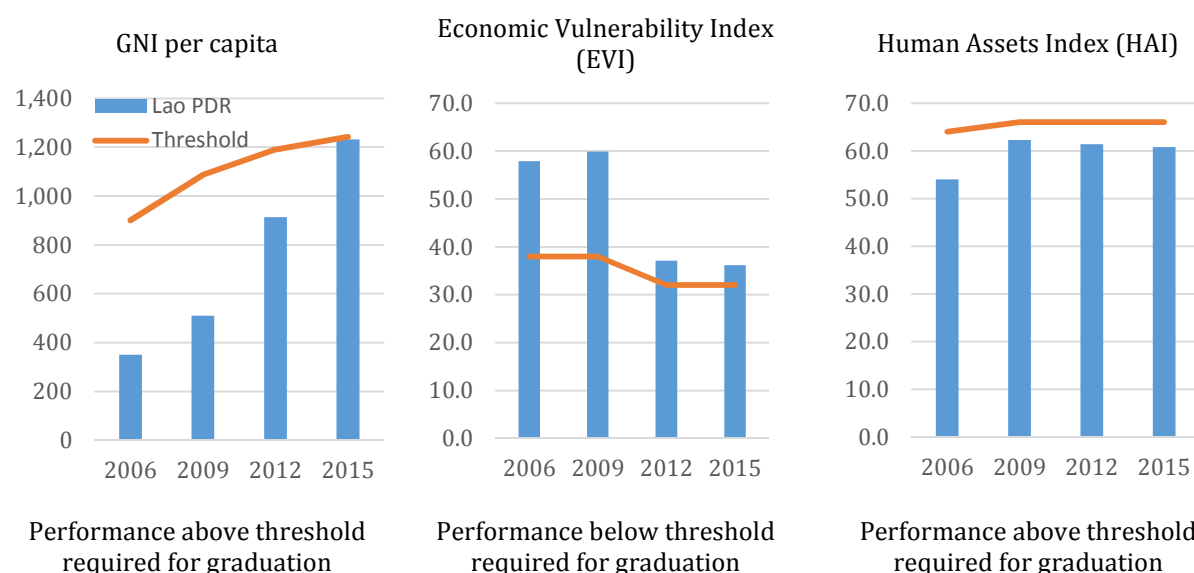
The SCD identifies the constraints to the functioning of the three pathways and prioritizes the interventions which are expected to have the biggest impact over the twin goals. Agriculture growth is pro-poor and with productivity levels well below regional peers the remaining potential is large. Strategic and environmentally responsible use of natural resources is critical to growth as well as livelihoods. Furthermore, the 44 percent of under-five-year-olds who were stunted in 2012 makes improving nutrition a top priority. More and better education improves the productivity of farmers and prepares people for the transition toward non-farm jobs which have been key drivers of poverty reduction. Risks in the fiscal and financial sectors could undermine growth and lead to instability that will affect delivery of public services and affect the vulnerable the most. Improving the trade and business environment and investing in infrastructure have high pay-offs; however, benefits will be lessened in case there is no progress on the top priorities. Putting in place a strengthened disaster risk management (DRM) framework and a basic social protection system would be important to sustain gains, but addressed on their own are likely to have limited impact.

TOP PRIORITIES	HIGH PRIORITIES	MEDIUM PRIORITIES
Promoting strategic use of natural resources and responsible management of the environment	Making it easier to do business and create good jobs	Putting in place a strengthened DRM
Increasing agricultural productivity to support incomes	Investing in infrastructure for growth and inclusion	Introducing a basic social protection system to lower vulnerability
Investing in improving nutrition to achieve children's full potential	Improving access to and quality of health services for more productive people	Improving inclusiveness of the financial sector to improve access to credit and lower risks
Improving quality of education and keeping girls in school		
Putting public debt on a sustainable path and strengthening financial sector stability		
Enhancing governance and creating a rules-based environment		

Executive summary

1. **Lao PDR has made important gains in development in recent decades.** Incomes rose, poverty declined, access to several key public services improved, and Lao PDR met a number of its Millennium Development Goals (MDGs). With an average growth rate of 7.8 percent per year over the last decade, it was the second-fastest-growing economy in the Association of Southeast Asian Nations (ASEAN) region and the 13th fastest-growing economy globally. Today, Lao PDR is a lower-middle-income country with a GNI per capita of US\$1,740 in 2015. However, there is growing evidence of the importance for growth to be shared more equitably and to be less vulnerable, including on environmental degradation. The 8th National Socio-Economic Development Plan (NSED) 2016–2020 provides an important opportunity to introduce policies that may put Lao PDR on a path that more effectively reduces poverty and promotes shared prosperity in a sustainable manner and prepares Lao PDR to graduate from Least Developed Country (LDC) status.

Figure 1: Lao PDR performance on LDC graduation criteria



Source: United Nations Department of Economic and Social Affairs.

2. **Lao PDR's asset endowments, geography, and economic and social legacies have intertwined to shape a development experience of strong growth, limited inclusion, and considerable risks to sustainability.** This reflects relative abundance of natural resources; landlocked and small size, ethnically diverse but part of a rapidly growing region; and institutions that have not kept pace with the changes in the economy. This reinforced the already low human development outcomes, including persistence of malnutrition and teenage pregnancies; resulted in high environmental cost of economic activity and vulnerability to shocks and disasters; and amplified the pattern of limited inclusion and elevated risks to sustainability. More specifically:

- **Lao PDR is rich in natural resources.** Its water resources represent a hydropower potential of up to 25,000 MW. They are rich in biodiversity and provide almost half of the animal protein consumption of the population. The forest cover declined to around 40 percent in 2010 (from 47 percent in 1995), but is still among the highest in the region. The value of minerals' deposits is likely to be substantial.
- **Lao PDR is the only landlocked, the smallest, and the most sparsely populated country in Southeast Asia.** While the rapid growth in the region fueled the demand for Lao PDR's natural resources, the difficult geography and low levels of human and physical capital lowered the country's competitiveness outside the few resource sectors and also complicated the provision of public services, especially in remote and rural areas where a large part of the 49 non-Lao ethnic groups live.
- **While embracing market economy concepts, Lao PDR's governance arrangements to support the transition have been evolving very gradually.** The arrangements provide for stability; however, rule of law is weak, the appetite to improve the regulatory quality is subdued, and the ability to control corruption is constrained, which also has consequences for creating a dynamic private sector.
- **Human development outcomes have been improving slowly.** The population of 6.5 million is rapidly increasing, but only one-third of the workforce has secondary education while over 30 percent of second graders were unable to read a single word in 2012. Malnutrition, at 44 percent in 2012, has remained persistently high with irreversible effects for the individuals affected and the society. The country is an outlier on early marriages with 35 percent of girls aged 18 being married in 2012. This reduces economic potential, reinforces malnutrition, and increases health risks. Indicators are persistently worse for minority ethnic groups across all dimensions while a gender gap remains in education and health. About two-thirds of the poor in Lao PDR are ethnic minorities, even though they constitute a third of the population.
- **Economic growth has come with a large environmental footprint.** The rate of depletion of natural resources is more than double compared to countries at a similar level of development which may put into question the ability of resources to continue propelling growth and providing important environmental services. In addition, Lao PDR is vulnerable to natural disasters and ill-prepared to deal with climate change and the future structural transformation (urbanization, migration, pollution).

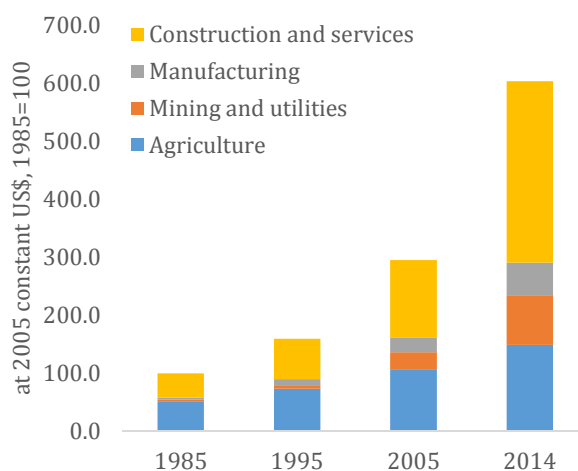
Table 1: The twin goals of the World Bank Group

End extreme poverty ...	Reduce the percentage of people living on less than US\$1.9 a day at 2011 purchasing power parity (PPP).
... promote shared prosperity ...	Foster income growth of the bottom 40 percent of the population in every country.
... in a sustainable manner	Resource use should not prevent future generations from achieving a level of well-being at least as great as that attained by the present generation. This implies that the total capital stock per capita (the sum of natural, human, and physical capital relative to the population) should not decline. In other words, natural capital may decline in value as long as one or more of the other forms of capital increase so as to keep to total value at least as high. ¹

3. **This SCD aims to identify interventions that would deliver sustained growth and edge Lao PDR toward the twin goals of ending extreme poverty and boosting shared prosperity.** The SCD seeks to answer three important questions to inform the foundations of the proposed more inclusive and sustainable development path. These are: (a) What is the nature of growth? (b) How inclusive is it? and (c) How sustainable is it?

What is the nature of growth?

4. **Lao PDR's GDP growth has been driven by a growing use, and indeed depletion, of natural resources.** The mining sector expanded strongly in the 2000s as two large copper mines started operations, while in the power sector the installed capacity surged from 640 MW in 2000 to around 6,000 MW by 2016 as Lao PDR welcomed investors to tap into its potential to meet growing demand in the region. The two sectors accounted for one-third of growth in the last decade while natural-resources-based exports combined (power, mining, and timber) reached US\$3.5 billion in 2014 up from US\$0.9 billion a decade ago. The expansion of the power sector also supported an impressive electrification effort, improving livelihoods and supporting businesses.

Figure 2: GDP expanded strongly

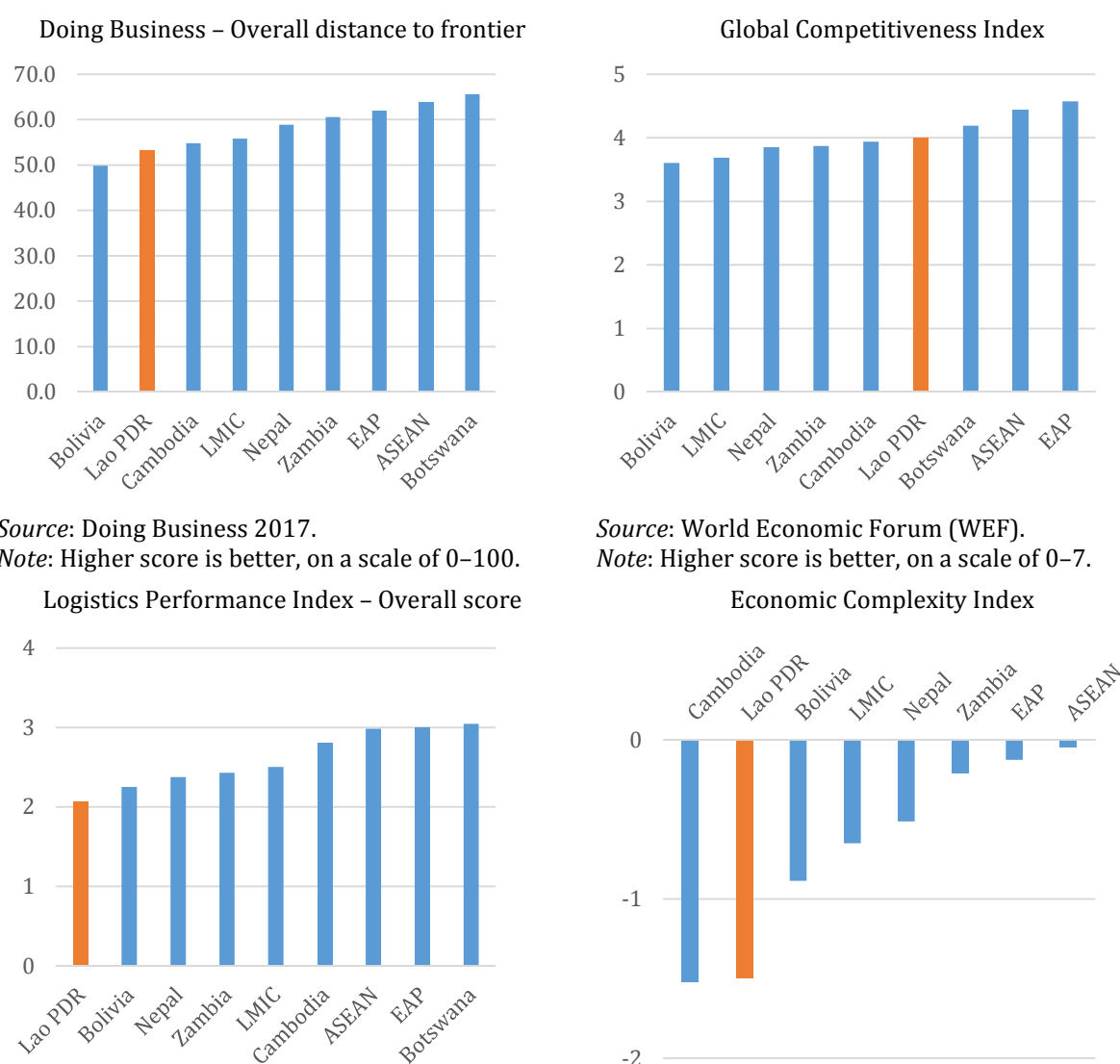
Source: United Nations (UN) National Accounts dataset.

5. **Competitiveness outside of natural resources is low.** Agriculture, where two-thirds of the labor force is engaged, grew at 3.7 percent on average in the past decade, just slightly faster than growth in hours worked and mainly driven by an increase in acreage

¹ However, the substitutability of natural capital with other forms of capital is limited by the essential environmental services they provide. An obvious example would be clean air. Another example may be a level of ecologically intact forest that is essential to maintain valuable biodiversity.

rather than productivity. There are signs of greater commercialization and diversification recently; however, subsistence rice farming continues to dominate. Manufacturing growth was stagnant for most of the last decade. A few sectors emerged recently (parts and components) which are better integrated in regional value chains, albeit from a low base and largely confined to the special economic zones (SEZs). Non-tradables fared slightly better. Investments in the power sector boosted construction, with growing public investment and foreign direct investment (FDI) in real-estate adding later on. Services expanded, but remain concentrated in traditional, low-value-added activities. Various measures of productivity (output per worker, capital intensity, total factor productivity [TFP]) in Lao PDR are low compared to countries at similar level of development and have not improved significantly.

Figure 3: Lao PDR ranking on selected indicators of competitiveness



Source: Doing Business 2017.

Note: Higher score is better, on a scale of 0–100.

Source: World Economic Forum (WEF).

Note: Higher score is better, on a scale of 0–7.

Source: World Bank.

Note: Higher score is better, on a scale of 1–5.

Source: Observatory of Economic Complexity.

Note: Higher score is better.

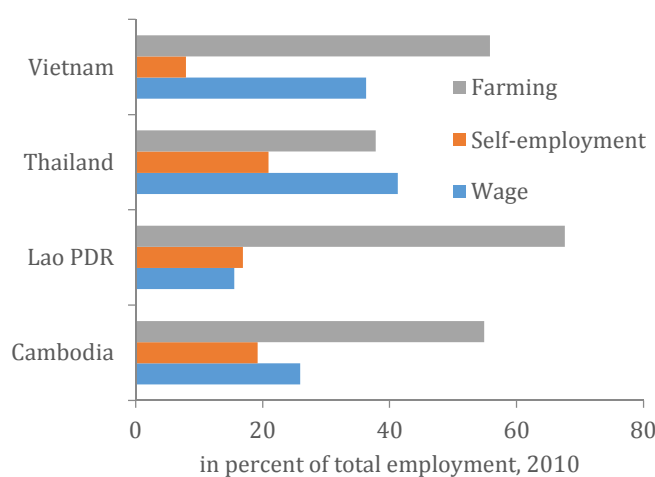
6. **Being a small, landlocked economy, Lao PDR faces natural disadvantages, further compounded by weak skills and technological readiness and limited innovation and business sophistication.** There are too few firms and the few which do exist struggle to grow. High informality, limited skills, a burdensome business environment that is discriminately enforced, and limited competition have prevented an emergence of a vibrant private sector. Lao PDR producers have difficulties accessing foreign markets, partly due to inability to meet quality and quantity standards, but also due to market restrictions. The infrastructure stock is largely in line with what is expected from the level of development; though a few critical upgrades are needed. Where good jobs are available, firms complain about an inadequate workforce and few applicants. The 2014 Lao PDR Development Report found that many workers lack foundational skills such as the ability to read. This means workers struggle even in most basic jobs and teaching them more skills is challenging.

7. **As a consequence of this growth pattern, few good jobs were created.** Most of the labor force of

around 3 million is economically active, mostly in subsistence agriculture (62 percent) or self-employed (20 percent). With agriculture providing an 'employment of last resort', the official unemployment rate remains low, but underemployment is significant. Only 400,000 non-agriculture jobs were added between 2003 and 2013. Natural resources sectors are capital-intensive and created few jobs directly, and where

jobs were created, in services, they were mostly in low-value-added services. Manufacturing, the main engine of transformation in other East Asia and Pacific (EAP) countries, added only 6,000 jobs between 2008 and 2013, keeping employment in the sector at around 220,000.

Figure 4: Most workers remain in agriculture



Source: World Development Report 2013.

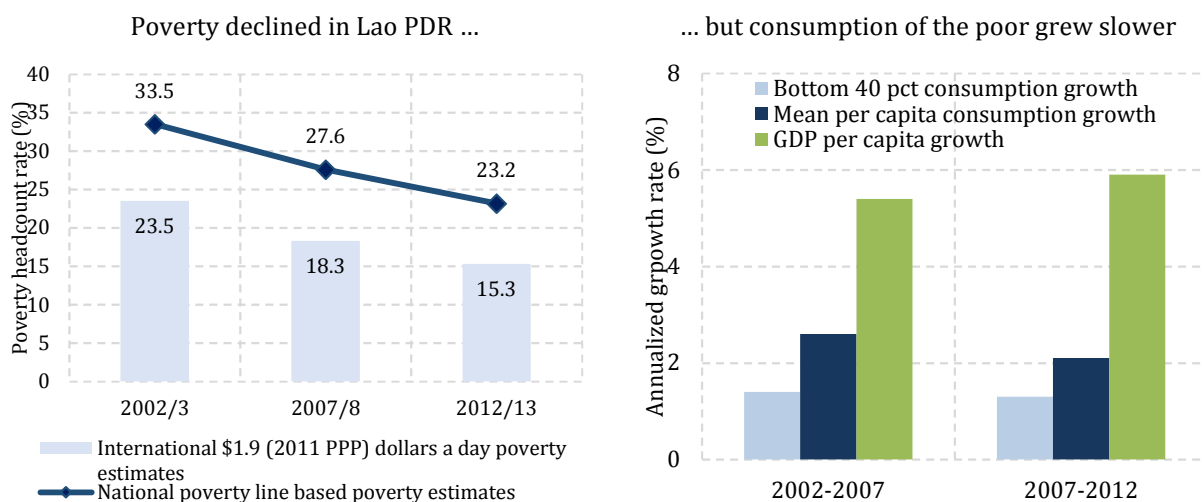
How inclusive is the growth?

8. **Between 2002/03 and 2012/13, absolute poverty, based on the national poverty line, declined from 33.5 percent of the population to 23.2 percent.** This was driven by increasing human capital, access to land, and creation of off-farm jobs. For example, the proportion of working-age adults with a secondary certificate increased from 26.7 percent to 35 percent, facilitating the transition to higher-paying wage jobs and also allowing the few, more educated farmers to be more productive. Access to agriculture land in rural areas increased by 26 percent and 400,000 non-farm jobs were created.

9. **Still, growth can be more inclusive.** Given the high GDP growth rates, the pace of poverty reduction was modest when compared to regional peers. Each percent increase in

GDP per capita contributed to a 0.4 percent reduction in poverty in Lao PDR, compared to a 1.2 percent reduction in poverty in Cambodia and most regional and structural peers. Furthermore, inequality widened, with the Gini coefficient increasing from 32.5 to 36.2, as the gains for the bottom 40 percent were lower than for the rest of the population. Inequality is still in the same range as Vietnam (Gini of 35.6 in 2012) and Indonesia (37.2 in 2013) but higher than in Cambodia (28 in 2011).

Figure 5: Poverty trend in Lao PDR

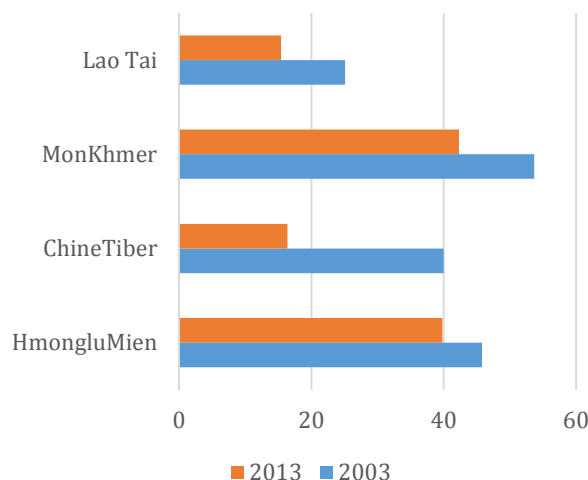


10. A large part of the population is at risk of falling into poverty due to frequent shocks and the absence of a safety net and risk mitigation measures. Half of the poor people in 2012/13 were not poor half a decade ago. Households in agriculture are twice more likely than non-farm households to fall back into poverty due to their exposure to shocks from farm produce price fluctuations, loss of land, and adverse weather. In addition, with fragmented health financing programs and limited health insurance coverage, health shocks and catastrophic out-of-pocket (OOP) expenditures pose a significant risk. Low financial inclusion and the absence of safety nets limit the ability of households to mitigate risks.

11. Non-Lao Tai ethnic groups have seen slower progress in poverty reduction and are lagging in most human development aspects.

About two-thirds of the poor in Lao PDR are non-Lao Tai, even though they constitute a third of the population in the country. Poverty rates are highest among the MonKmer (42 percent) and Hmong (40 percent) at nearly three times the incidence of poverty among the majority Lao Tai ethnic groups (around 15 percent). The majority of working-age ethnic minorities (55 percent) have incomplete primary or no formal education, limiting their ability to productively participate in the economy. Less than 20 percent of ethnic minority households have a non-farm income, compared to 54 percent for Lao Tai households. Malnutrition, teenage pregnancies, and school dropouts are the highest among ethnic minorities, further dimming their prospects.

Figure 6: Poverty is higher among non-Lao Tai ethnic groups



Source: LECS5.

12. Non-monetary dimensions of welfare which drive poverty reduction in the long term are improving, but more slowly for the vulnerable, and also define gender gaps.

Malnutrition remains persistently high, mainly caused by poor dietary diversity (driven by poor nutrition habits but also low education, especially among mothers) and lack of access to improved water and sanitation. The proportion of stunted under-five-year-olds declined by only 4 percentage points over a decade, from 48 percent in 2001 to 44 percent in 2012,² while poverty declined by more than 8 percentage points. *Consequently, Lao PDR failed to meet the MDG on stunting even as it achieved the goal of halving extreme poverty.* Access to basic services is improving, but remains unequal and is often of poor quality. Almost half of the bottom 40 percent had no toilet in 2012/13, compared to 18 percent without a toilet among the top 60 percent. Secondary enrollment, at 54 percent, is low, but even much lower among poor households (28 percent). Transport connectivity and proximity to schools and health centers are also lower for the bottom 40 percent, while 15 percent of villages—the most remote ones—do not have access to electricity. Household air pollution from unclean cooking sources remains a major health concern, especially among the poor. Due to a culture of early marriages, teenage pregnancies are high, which is both a cause and consequence of high school dropout rates. This also contributes to high maternal mortality, which along with low literacy among women is a defining feature of the gender gaps in the country.

² Two surveys in 2015 reported information on the nutrition status. While both sources suggest a reduction in the stunting rates (according to one of the surveys to 35 percent), direct comparison is not possible.

How sustainable is the growth?

13. **Growing public debt, risks in the financial sector, and low buffers may test macroeconomic stability.** Under current policies the country is likely to return to high risk of debt distress while systemic risks in the financial system are high. Existing buffers, including capital levels in large banks, government deposits, and foreign exchange reserves, are insufficient to be able to absorb shocks. Macroeconomic instability can ignite inflation, lower living standards, and hurt public services delivery.

14. **The rapid rate of depletion of Lao PDR's natural resources puts into question the sustainability of the development path.** The rate of natural resource depletion is much faster than in lower-middle-income countries, including in Vietnam and in Cambodia, as well as in structural peers. Deforestation rates were estimated to be above 1 percent per year until recently. Excessive use of natural resources can stall the main engine of growth at a time when the competitiveness of the non-resource sector is yet to improve. These risks are further exacerbated by the impact of climate change which is increasing the frequency and severity of natural disasters. Continued environmental degradation will hurt livelihoods and create economic costs. The poor will be most affected as they have the least options to mitigate risks.

Toward an agenda for the twin goals

15. **For Lao PDR, accelerating progress toward the twin goals of ending extreme poverty and boosting shared prosperity means maintaining the current robust growth rates while increasing inclusiveness and lowering vulnerability.** Importantly, this will be a greener and more resilient growth pattern. The SCD employs a framework with three main pathways toward the twin goals, each addressing weaknesses identified in the diagnostics. Sustainably and efficiently managing the country's natural resources, including collecting and managing resource rents, (Pathway 1) is critical to delivering strong growth and securing resources to build Lao PDR's endowments of human and physical capital. Pathway 2 focuses on unlocking opportunities in the non-resource sectors to increase farmers' incomes and create non-farm jobs, while Pathway 3 emphasizes improvements in human capital required to increase the ability of people to take on these opportunities. Measures to address the high vulnerability of people in Lao PDR further inform Pathway 3. The SCD also highlights the importance of strengthening institutions and governance—a critical cross-cutting challenge that affects progress in each of the three areas above. The pathways can be easily mapped to the three main outcomes of the 8th NSEDP.

Table 2: Mapping the objectives of the SCD and the 8th NSEDP

8th NSEDP	Systematic Country Diagnostic
Priority cross-cutting output (1 of 3): Enhance effectiveness of public governance and administration	Cross-cutting theme: Strengthening institutions
Outcome: Sustainable management of natural resources and reduced impact of natural shocks and climate change	Pathway: Sustainable and efficient management of natural resources
Outcome: Strong economic growth and lower vulnerability	Pathway: Unlocking the potential in non-resource sectors to create opportunities
Outcome: Enhanced human development, poverty reduction, and access to quality education and health services	Pathway: Building the assets of people to be able to take on these opportunities and to mitigate risks and protect gains

Pathway 1: Sustainable and efficient management of natural resources

16. With its relative abundance of natural resources compared to other assets, Lao PDR's growth prospects in the near future will be closely linked to the resource sectors. While Lao PDR has used its resources to advance integration and support growth, current practices may have contributed to excessive resource use which may undermine future growth prospects. A more strategic and environmentally responsible use of natural resources can ensure that the resources are used in a sustainable manner and that social and environmental impacts are mitigated. The proposed stronger selectivity of hydropower and mining investments is likely to lead to fewer investments but with higher economic and social returns and with a noticeably smaller footprint with regard to land and water use. Integrated Spatial Planning (ISP) can address competing demand on the country's natural resources. Such a planning process should take into account that in some cases conservation is a more attractive option than exploitation, especially until institutions to manage natural resources and rents are strengthened. Conservation can also open economic opportunities in more environmentally friendly sectors, such as nature-based tourism and clean agriculture. With improved management and protection of natural resources, Lao PDR will be well on its way to a greener and more resilient growth path. Stricter standards and strengthened monitoring and enforcement against pollution will also be important.

17. Few sector-specific interventions need to be addressed as a priority. Reversing the process of deforestation and forest degradation is important. This would include stronger oversight arrangements over salvage logging and implementing the ban on illegal timber trade,³ combating poaching and wildlife trafficking, and preventing illegal mining. In parallel, a stronger capacity to manage forests and greater central-level management of conservation and protection forests can help. An integrated approach to water management would provide a more careful hydropower project selection process and identify operating rules that avoid conflicts between facilities and across water users, including transboundary

³ The Prime Minister Order No.15 from May 2016 is a good start and signals greater willingness to address this issue.

priorities. While it may reduce the pace of hydropower expansion, it will still allow for sizeable growth and will better match the growth in installed capacity with infrastructure improvements and demand. In mining, an immediate priority is to improve the management of existing concessions (resolve overlapping land allocations and enforce regulations on environmental and social impacts effectively). Next, putting in place a sound regulatory framework, including assurance for finder's right and simplified and transparent licensing, can encourage entry of reputable and socially responsible investors.

18. Lao PDR should also do more to share more widely the benefits from natural resources use. The country did not always put its resources to their best possible use, favoring in some cases short-term gains over long-term development; was able to convert relatively little of the resource rents into government revenues; and didn't always invest these efficiently into human and physical capital. Revenue leakage and weak PFM prevented the sharing of benefits across all population subgroups. Doing more in this area would be critical to the successful functioning of the remaining two pathways.

Pathway 2: Unlocking the potential in non-resource sectors to create opportunities

19. Meeting the goals of ending extreme poverty and boosting shared prosperity will mean an accelerated structural transformation, including a more productive agriculture and a vibrant private sector. Increasing productivity of agriculture is critical to increase income of farmers, create jobs in agribusiness and agro-processing, reduce stress on the environment, and enhance nutritional outcomes. This will require a shift from a focus on rice self-sufficiency to competitiveness of rice-based farming systems and support to clean, organic, and niche products. Expanding multipurpose irrigation, improving availability of quality seeds and fertilizers and extension services, and increasing educational attainment of farmers can facilitate this shift. Improved food value chains, through greater availability of information, better rural roads and transport services, promotion of contract farming, and improving access to finance, can accelerate commercialization and diversification.

20. A more productive private sector can create more and better jobs. This will facilitate further structural transformation and help those already making the transition out of primary agriculture but trapped in low productivity, often informal activities. Investing in infrastructure (closing gaps, especially on upgrading corridors and constructing the transmission level connections with potential electricity markets); adopting policies that encourage competition and address barriers to the flow of goods and services; and making it easier to do business (increasing transparency and predictability and streamlining procedures) can improve competitiveness and allow the private sector to invest in emerging business opportunities. Geography and some of the challenges outlined in the SCD may lower the likelihood of a large-scale export-led industrialization seen in other EAP countries taking place in Lao PDR. Still, tourism, electricity, agriculture, and labor markets offer opportunities for greater integration even today. Over time, improved human and physical capital will increase the areas in which Lao PDR would be able to participate in regional flows.

Pathway 3: Building the assets of people to be able to take on these opportunities and to mitigate risks and protect gains

21. Households exit poverty by accumulating human capital and physical assets. This opens up opportunities for transition into better-paid jobs—be it domestically or through migration—but also improves the prospects for those that remain in agriculture. Importantly, building household assets should be tailored to address specific challenges in Lao PDR. In particular, investments should also take into account the additional constraints faced by minority ethnic groups who primarily lag in human capital and access to services that has both limited their economic opportunities and their ability to make the best out of opportunities available to them, thus trapping them in a vicious circle of poverty.

22. Building skills begins with investing and ensuring good nutrition status in the early years of life (from pre-conception through a child's entry into primary school at age 6) during which there is a limited window to maximize on each individual's ability to reach his or her full potential. Such investments includes reproductive, maternal, and child health services; nutrition-specific and nutrition-sensitive services; parenting education and safe, nurturing, stimulating home environments; and early childhood education. While aspiring for universal coverage with water and sanitation facilities, interventions should prioritize high-stunting, low-access areas as well as developing an information system on service coverage and functionality. Beyond improved nutrition, building skills will also require increasing the quantity and quality of education people receive, as well as improved access to and quality of health services, including preventive and primary care services that cater to emerging and noncommunicable diseases. Aiming for improved access to basic infrastructure services will improve opportunities. More investment in local roads and improved road maintenance with strengthened disaster resilience can ensure universal year-round road access. Completing electrification will require innovative and low-cost options for grid extension and scaling-up of off-grid electrification. Dealing with unexploded ordnances (UXOs) will increase economic opportunities and lower risks to life.

23. Building resilience and mitigating risks will be important for ensuring the sustainability of poverty reduction going forward. Key areas include (a) increasing resilience to disaster risks and climate change, especially in agriculture since farming households are mostly exposed to unpredictable weather hazards; (b) introducing elements of a basic social safety net system—especially in health insurance; and (c) deepening financial inclusion to expand options available for households to cope with shocks.

24. Coordinated and targeted interventions based on realistic projections of future demand for services will be most effective. Importantly, addressing key human development weaknesses (such as poor child nutrition and development in early years) requires a multisector approach involving interventions in a number of priority areas. Furthermore, the concentration of poor outcomes within ethnic groups raises the importance of targeted approaches and extensive outreach to generate demand for services. Given the relatively higher dependence of non-Lao Tai ethnic groups on agriculture and natural resources, they are expected to benefit from efforts to improve the productivity and resilience in these areas. However, additional efforts will be needed, including efforts to

lower language barriers (for example, recruiting health and education professionals from non-majority ethnic groups or providing services in local languages), improve availability and quality of services and activities to nudge behavior, and remove social and cultural barriers. Finally, policies and interventions should be driven by the insight that, over the long term, migration will likely be a pathway to economic integration for a big part of the population, especially the ones in remote and rural areas where economic opportunities will continue to remain limited while the ability to deliver public services will be constrained.

Cross-cutting theme: Strengthening institutions

25. Strengthened institutions will be critical for realizing opportunities through each of the three pathways. While ‘institutions’ is a much-used term, the experience of developed, resource-rich countries points to the most important ones. It is the institutions that (a) ensure stable public finances and dampen volatility; (b) increase accountability of service providers; and (c) ensure a level-playing field and promote competition.

26. Stronger institutions can reduce macroeconomic fragility. Healthier fiscal accounts underpinned by stronger tax base and more efficient public expenditures can stabilize public debt (as percent of GDP). Strong corporate governance of Electricité du Lao (EdL) will be important for fiscal solvency, but even more for the prospects of the power sector. Dealing with weak banks, adopting international practices in banking sector supervision, and ensuring effective enforcement can lower risks in the financial sector. Beyond macroeconomic stability, reforms to enhance governance and provide a level-playing field can help unleash the potential of the private sector, including by transforming state and market relationships (regulating conflict of interest, improving public procurement); improving procedures in the administration (clarifying central-local government relations, building coordinating capacity at the center); and increasing accountability (strengthening the role of the National Assembly and inspection agencies, improving transparency and budgeting).

Prioritized agenda

27. While the list of development challenges is extensive, the SCD aims to identify the most critical factors for achieving the twin goals. The prioritization was largely guided by the expected impact of the identified policies over the twin goals, defined to also include sustainability. Greater weight was given to policy areas that address constraints for lagging groups (such as minority ethnic groups) and address gender gaps. The SCD prioritizes actions that require immediate attention, either because they address a pressing challenge (malnutrition, teenage pregnancies, and rapid depletion of natural resources) or the long period it takes to yield results calls for early intervention (skills and improved governance). The prioritization was complemented by the findings of an extensive engagement process with a range of stakeholders, including representatives of central and local governments, the business sector, nonprofit organizations, and development partners.

28. In the Lao PDR context, a focus on the impact over the twin goals meant prioritizing policy areas that increase incomes in agriculture, create and facilitate transition to good non-farm opportunities, and lower risks to sustainability of growth.

Agriculture growth is pro-poor, with the sector accounting for 44 percent of the poverty reduction between 2002/03 and 2012/13. Also, with productivity levels well below regional peers and almost two-thirds of the population engaged in agriculture, the remaining potential is large, making this a top priority. Making more strategic and environmentally responsible use of natural resources a top priority reflects the criticality of the natural resource sector to growth as well as livelihoods. Furthermore, the 44 percent of under-five-year-olds that were stunted in 2012 makes improving nutrition a top priority. More and better education improves the productivity of farmers and better prepares people to make the transition toward non-farm jobs. Both have been key drivers of poverty reduction in Lao PDR, making this also a top priority. Lowering risks in the fiscal and financial sectors is a high priority as these could undermine growth and lead to instability that will impact delivery of public services and affect the vulnerable the most. Improving the business environment and investing in infrastructure have high pay-offs; however, benefits will be lessened in case there is no progress on the top priorities. Putting in place a strengthened DRM framework and a basic social protection system would be important to sustaining gains, but addressed on their own these priorities are likely to have limited impact.

Table 3: Prioritized agenda for achieving the twin goals

TOP PRIORITIES	HIGH PRIORITIES	MEDIUM PRIORITIES
Promoting strategic use of natural resources and responsible management of the environment	Making it easier to do business and create good jobs	Putting in place a strengthened DRM
Increasing agricultural productivity to support incomes	Investing in infrastructure for growth and inclusion	Introducing a basic social protection system to lower vulnerability
Investing in improving nutrition to achieve children's full potential	Improving access to and quality of health services for more productive people	Improving inclusiveness of the financial sector to improve access to credit and lower risks
Improving quality of education and keeping girls in school		
Putting public debt on a sustainable path and strengthening financial sector stability		
Enhancing governance and creating a rules-based environment		

29. Significant efforts are needed to address the knowledge and data gaps in Lao PDR. The findings of this SCD are based on benchmarking of Lao PDR, to the extent possible, in relation to countries in the same region (ASEAN and EAP countries), countries in the same income classification (lower-middle-income), as well as countries that share certain similarities ('peers') with Lao PDR. The peers selected were Cambodia (similar demographic profile, same income and region group and reliance on agriculture); Botswana (landlocked; resource rich; small population and income level to which Lao PDR aspires); Bolivia (landlocked, small population, resource rich); Nepal (landlocked, rich hydro potential, small population, and same income group); and Zambia (landlocked, resource rich, same income group). In addition, additional insights were gained in a few areas during the SCD

preparation, especially on long-term growth prospects, the outlook for power generation, the linkages between various causes of malnutrition, and the issues affecting businesses. However, a significant gap remains, especially with regard to fiscal and financial sector issues, labor market developments, as well as the agenda for moving toward a greener and more resilient growth path. Furthermore, the understanding of a few sector issues may require additional breadth, such as the functioning of the supply chain in agriculture, value of natural wealth, prospects for the energy sector, as well as the potential of information and communication technologies in improving the business environment and service delivery.



1. Country context

1. **Lao PDR is a small and diverse country in a rapidly changing region.** The country borders a region with a combined GDP of US\$1,050 billion and population of around 280 million (Thailand, Cambodia, Myanmar, Vietnam, and Yunnan Province of China). Lao PDR's population of 6.5 million comprises four main ethnolinguistic groups, divided further into 49 ethnic groups with a corresponding number of different languages, cultures, and traditions. The Lao, the largest ethnic group, accounts for around 67 percent of the population. Its geography is equally diverse, with highlands in the North and lowlands in the South. Administratively, the country is divided into northern, central, and southern regions, further split into the capital, Vientiane, 17 provinces, 143 districts, and 8,507 villages. Gross domestic product (GDP) reached US\$12.5 billion by 2015, while a gross national income (GNI) per capita of US\$1,740 in 2015 makes Lao PDR a lower-middle-income country. Using the typology of the East Asia and Pacific at Work Report (World Bank, 2014a), with two-thirds of the population living in rural areas, Lao PDR is an agrarian economy. Still, the country is urbanizing, with the urban population increasing by 40 percent between 2005 and 2015. Finally, it is endowed with significant natural capital, giving grounds to its aspirations to provide increasing amounts of clean energy to the Association of South East Asia Nations (ASEAN), to use its spectacular landscapes and rich biodiversity to develop tourism, and to rely on its minerals to develop and reduce poverty.

2. **Over the 40 years since its establishment in 1975, Lao PDR made significant gains.** Lao PDR met a number of its Millennium Development Goals (MDGs) (Box 1); incomes rose, poverty declined, and access to some key public services improved. However, there is increasing evidence that growth needs to become more inclusive and less vulnerable, including on environmental degradation. The 8th National Socio-Economic Development

Plan (NSED) 2016–2020 provides an important opportunity to introduce policies that will put Lao PDR on a path that reduces poverty and promotes shared prosperity in a sustainable manner and opens the door for graduation from Least Developed Country (LDC) status.

Population is rapidly growing with significant changes in demographics

3. **Population growth is driven by high, though slowly declining, fertility rates and falling mortality rates.** The fertility rate (births per woman) is around 3, one of the highest in the East Asia and Pacific (EAP) region (1.9 on average in EAP and in Myanmar and 1.7 in Vietnam and China). Mortality rates have also fallen, especially for early years. Population aged 0–14 accounts for more than a third of the total population in Lao PDR, compared to around 20 percent in EAP on average. Life expectancy has increased, but it reached 65 only around the middle of the last decade. Only 3.8 percent of the population is older than 65, compared to 8.1 percent in EAP on average. The population is projected to increase to around 10 million by 2050 (United Nations Population Fund, 2015). Aging is unlikely to affect the country for a few decades at least.

Box 1: MDG attainment and LDC graduation criteria

The country made significant progress in achieving the MDGs. The country halved extreme poverty from 46 percent in 1992 to 23 percent in 2012/13; more than halved maternal mortality (from 796 per 100,000 live births in 1995); lowered child mortality (from 170 per 1,000 in 1993 to 79 per 1,000 in 2011); increased the enrollment rate in primary education from 58.8 percent in 1992 to 98.7 percent in 2014; achieved gender parity in primary and secondary education; and advanced on access to safe water and sanitation. Still, a few MDGs remain off-track, including on reducing chronic undernutrition. More progress is needed toward full and productive employment, achieving the completion of primary education, and advancing on secondary and tertiary education. Lao PDR also needs to achieve gender equity at higher levels of education and improve the role of women in employment and political participation. The target of reducing child mortality to one-third of 1990 levels is yet to be met. Tuberculosis prevalence, although declining, is high, while the rising incidence of HIV and malaria pose challenges. Improving environmental sustainability, reversing forest degradation and loss, and clearing unexploded ordnances (UXOs) contaminated land are areas where more progress is needed.

Lao PDR aims to become eligible for graduation from LDC status by 2020. At the 2015 review, Lao PDR was found not eligible for graduation. While GNI per capita is just below the threshold, the gap on the Human Assets and Economic Vulnerability indices is larger.

Table 4: Lao PDR score on LDC graduation criteria

	Threshold	Lao PDR		Threshold	Lao PDR
GNI per capita, 2011–2013	>US\$1,242	US\$1,232	Economic Vulnerability Index	<32	36.2
Human Assets Index (HAI)	>66	60.8	Exposure Index		33.1
Undernourishment		72.0	Economic structure		32.2
Under-five mortality		62.8	Shock Index		39.4
Literacy rate		63.6	Natural shocks		54.6

Source: Drawing on (The Lao People's Democratic Republic, 2015) and **Invalid source specified..**

4. **The fertility rates are also high due to large unmet demand for family planning and incidence of teenage pregnancy.** Lao PDR has the highest rates of adolescent pregnancies in Asia, with 4 in 10 Lao girls becoming pregnant before the age of 19. In 2012, 35 percent of girls aged 18 were married, compared to 9 percent in Vietnam and 18 percent in Cambodia. Also, 20 percent of women have unmet family planning needs. This reduces economic potential, reinforces the intergenerational transfer of malnutrition, and increases health risks. Economic development and urbanization, expansion of education, and building up of human capital (including through meeting unmet need for family planning and tackling early marriage) are expected to help.

5. **Population density is low with a growing urban segment.** Lao PDR is the most sparsely populated country in EAP, after Mongolia, having less than 30 persons per km². Two-thirds of the population is rural but urbanization is taking place and could reach 50 percent by 2030. This would imply a stable rural population and an urban population that accounts for the bulk of the increase and will impact delivery of public services, including in education, health, transport, and utilities.

Asset endowments

6. **Lao PDR is rich in natural resources including forests, wildlife, water, and mineral resources, which are increasingly rare in neighboring countries and provide opportunities if properly managed.** At the last update of the Wealth of Nations database, 44 percent of Lao PDR's wealth was in the form of natural resources. The country's rich water resources serve multiple purposes. The annual water discharge is around 270–333 billion m³, representing a hydropower potential of up to 25,000 MW and providing an opportunity for growth and poverty reduction, through investments, provision of reliable, clean, and affordable energy, higher exports, and government revenues. The 1,700 km of the Mekong River flowing through Lao PDR is also the second-most-diverse watershed in the world in fish biodiversity. Fisheries provide almost half of the total animal protein consumption of the population. The forest cover has declined to around 40 percent in 2010 (from 47 percent in 1995), but is still among the highest in the region with the timber and non-timber forest products valued at US\$10,740 (constant 2010 U.S. dollar) per capita. Lao PDR boasts spectacular landscape, caves, waterfalls, and protected areas covering about 14 percent of the country's land area, with 'natural sites' accounting for almost 60 percent of the nearly 2,000 government-designated tourism sites (Annex 4). It has ratified the Convention Concerning the Protection of World Cultural and Natural Heritage, and Luang Prabang and Vat Phou are United Nations Educational, Scientific, and Cultural Organization (UNESCO) World Heritage locations. Subsoil assets add around 2010 constant US\$3,000 per capita, mostly in copper, gold, potash, bauxite, and coal.

7. **But has relatively little of other assets.** Human development outcomes are especially worrisome, given the slow improvement and weak relation to economic growth. Only a third of the workforce has secondary education while over 30 percent of second graders in 2012 were unable to read a single word. Malnutrition is high and persistent, with stunting affecting 44 percent of children under the age of five in 2012. Indicators are persistently worse for ethnic minorities. Physical infrastructure is improving, with better

roads, new bridges, extensions to the transmission and distribution networks, and airports improving connectivity. However, gaps in coverage continue to exist, especially in remote and rural areas where the ethnic diversity is most visible.

Government agenda

8. **The objective of the 2016–2020 8th NSEDP is to reduce poverty and prepare Lao PDR for LDC graduation.** The NSEDP has three main outcomes: (a) strong economic growth and lower vulnerability; (b) enhanced human development, poverty reduction, and access to quality education and health services; and (c) sustainable management of natural resources and reduced impact of natural shocks and climate change. More specifically, the NSEDP prioritizes (a) a stronger non-resource sector with a focus on agro-processing, tourism, and small and medium enterprises (SMEs); (b) continued use of hydro and mining with stronger environmental and social safeguards; (c) enhanced rule of law; and (d) improved access to education, health, and social protection systems. Implementation of the 8th NSEDP aims to see GDP growth average 7.5 percent per year and GDP per capita increase to US\$3,100 by 2020; however, these targets were recently revised slightly downwards as economic activity moderated in 2016 reflecting external and domestic headwinds (lower commodity prices, tax shortfalls, and so on).

9. **Lao PDR mainstreamed the MDGs into its national development plans and is embedding the Sustainable Development Goals (SDGs).** The NSEDP's focus on growth, vulnerability, and inclusion allows for integration of MDGs and SDGs in the national strategies with around half of the proposed NSEDP's monitoring and evaluation indicators linked to the 17 SDGs with an additional goal added in Lao PDR on reduced impact of UXOs. Lao PDR is one of six countries in which a program for the localization of SDGs is being rolled out, which is currently ongoing. While the NSEDP provides limited guidance on the prioritization, off-track MDGs (such as nutrition, child mortality, immunization, productive and decent work, school completion, and advancing to higher grades) would need to continue to receive attention, as well as SDGs that continue to advance the agenda on poverty reduction and inclusion. In many cases the SDGs are moving the post by requiring not only basic access but also improved quality of services; for example, in water supply and sanitation, education, and so on. The SDGs focus on resilient infrastructure and protection and sustainable use of resources is also very relevant in the Lao PDR context, given the importance of natural resources to growth and livelihoods and the significant disaster risks.

10. **Lao PDR recognizes the link between development, sustainability, and the need to mainstream environmental considerations, including on climate change.** The country has ambitious plans to lower its greenhouse gas emissions (even though it accounts for a negligible amount of global emissions), while increasing resilience to climate change. The 2015 Intended Nationally Determined Contribution identified increasing forest cover, expanding electrification and hydropower, growing the role of renewable energy, and improving the road network and public transport as key mitigating actions. On adaptation, the focus is on agriculture, land use, water management, transport, urban development, and public health (Lao PDR, 2015). Lao PDR is dedicated to the implementation of its commitments; however, it will require significant support.

11. The ownership of this agenda exists, but is challenged by the lack of a rules-based environment. Improving living conditions and developing the economy and catching up with more advanced ASEAN neighbors are high on the agenda and the developments of China and Vietnam serve as models pointing in the same direction. However, these incentives appear to have had limited impact over the ability to pursue more vigorous economic reforms reflecting also strong capture of political institutions by vested interests. While the domestic environment doesn't generate a strong push for reform, international forums have proved more effective. Lao PDR's accession to the World Trade Organization (WTO) in 2013 and more recently the efforts to implement Financial Action Task Force (FATF) recommendations are examples when Lao PDR was able to design and implement important reforms. In this regard, the advent of the ASEAN Economic Community (AEC) could spur efforts across the region to address protracted policy issues. With a weakened effort following WTO accession, the AEC could offer a new anchor for reforms.

Governance arrangements

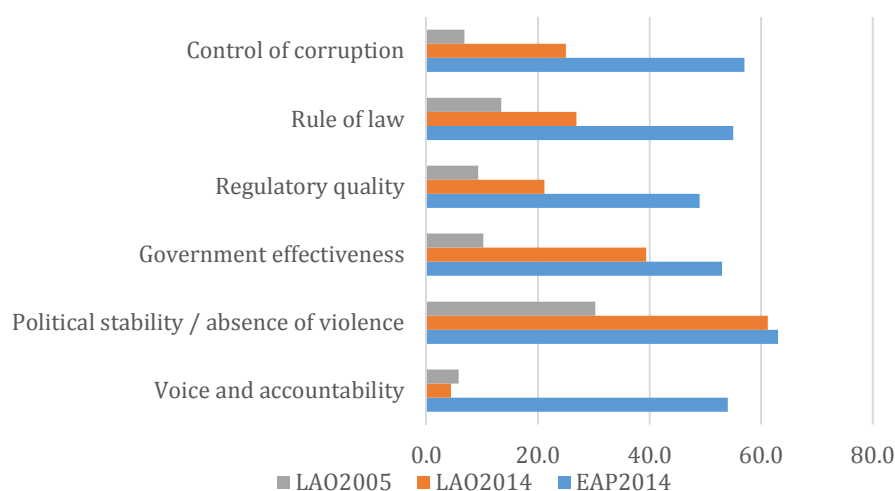
12. While embracing market economy concepts, the governance arrangements to support the new path have been evolving very gradually. The governance arrangements provide for stability but with limited voice and accountability. Lao PDR is governed by a single party, the Lao PDR People's Revolutionary Party, headed by the Party's Central Committee and managed by the Politburo. The 2016 Party Congress provided continuity on most policy orientations and signaled willingness to tackle corruption and advance toward more inclusive and sustainable growth. Four mass organizations (the Lao Front for National Construction, the Lao's Women's Union, the Lao People's Revolutionary Youth Union, and the Federation of Lao Trade Unions) are expected to allow for representation of the wider population. According to the Constitution, all state organizations function by a process of "democratic centralism," that is, they are organized as hierarchical organizations in which information (about social issues and concerns, for example) flows up the hierarchy and decisions flow down (Stuart-Fox, *Countries at the Crossroads 2011: Laos*, 2011). Representation of women in government is mixed, with Lao PDR having a respectable proportion of women in the National Assembly (25 percent), while the proportion of women in other decision-making institutions is still low (5 percent in 2012).

13. There has been some progress in strengthening governance, but Lao PDR continues to rank poorly on a number of governance indicators. The understanding of the need to improve the quality of public services for people and businesses is very slowly evolving and mechanisms to solicit feedback and consultation are gradually being introduced (for example, consultations in drafting regulations, participatory approach to planning); however, in many instances even the few options that exist to provide voice to citizens and businesses are not effectively implemented. As a result, civil society leverage over policy making remains very limited while the opportunities for the private sector are constrained. Lao PDR is ranked 107 out of 144 countries on the World Economic Forum's (WEF's) indicator for transparency of government policy making. This extends to all aspects of government operations with basic fiscal and sectoral information not available, even in some cases within the government. As a result, rule of law is weak, the appetite to improve the regulatory quality is suppressed, and the ability to control corruption is limited. Lao PDR

ranks only around the 25th percentile on Worldwide Governance Indicators and it is 139th (out of 168 countries) on Transparency International's Corruption Perception Index (CPI). According to Global Financial Integrity, illicit financial flows were estimated at around 13 percent of GDP on average between 2006 and 2013.

Figure 7: Lao PDR is closing the gap in institutional performance but very slowly

(percentile rank 0–100, higher score is better)



Source: Worldwide Governance Indicators.

14. The size of the government has increased rapidly in recent years. A 2010 report estimated the civil service at around 1.8 percent of the population, which is not excessive, with an additional around 1.5 percent estimated to be employed by the police and the army (World Bank, 2010c). By end-2015, the civil service expanded to 2.8 percent of the population. In education alone, employment increased by 40 percent between 2010 and 2015 to reach around 1.4 percent of the population. The pace of increase is a cause for concern since it came at a significant fiscal cost and does not appear to be linked to strategic decisions about the role of the civil service and its appropriate size.

15. The administration has limited capacity to design good policies, but this is going to be a smaller problem going forward. Few in the public service demonstrate sufficient understanding of the requirement of modern institutions. Still, there is some evidence of a growing body of well-educated technocrats taking up senior decision-making positions in the administration.

16. Frequently, institutional effectiveness is hampered by lack of clear hierarchy and assignment of roles and responsibilities within the central government and between the center and the provinces. Operating arrangements in the government result in suboptimal efforts and deployment of resources. Within government agencies, decision making is centralized and hierarchical, and even the most minor technical matters get passed up the hierarchy where decisions are made (Bertelsmann Stiftung, 2016). Also, overlapping jurisdictions among the different ministries and within the ministries contribute to varying

interpretations and implementation of government policies (Soukamneuth, 2006). Interministerial coordination is weak, while regionalism remains strong. Poorly articulated organizational lines of responsibilities between Governors and Ministers results in policies and regulations being selectively enforced at the local level which undermines rule of law.

17. Still, there appears to be sufficient capacity to push projects where there is commitment. According to the Worldwide Governance Indicators, government effectiveness is above the average for lower-middle-income countries, though it lags the average for upper-middle-income countries and the EAP average. On one hand, large-scale projects such as hydropower dams and other infrastructure are implemented with the full support of the state, albeit with at times insufficient attention to environment and social safeguards. Similarly, the success in stemming the illegal exports of timber in 2016 reflects a fair degree of coordination and implementation across various agencies. On the other hand, reforms aimed at improving the functioning of the market economy or supporting civil society which may undermine political interests are left unimplemented (Bertelsmann Stiftung, 2016).

18. The culture of formal institutional checks and balances is only gradually developing. The traditional division of powers into executive, legislative, judicial, and monetary powers at arm's length of each other is slowly starting to become visible; however, key positions still hold significant powers in more than one branch with a strong oversight function by the Party. The judiciary is yet to emerge as a guarantor of personal and property rights guaranteed by the Constitution. In the Lao PDR context, some checks and balances roles are provided by the Party, but it is unclear how effective these are. The National Assembly, whose members are elected directly by the people from a vetted list, is increasingly playing a stronger oversight role; however, it is yet to emerge as a more effective check and balance to the executive.



2. The nature of Lao PDR's growth and its constraints

Opening up in the late 1980s brought dynamism to the economy; however, most of the potential was exhausted by the end of the 1990s

19. **The adoption of the New Economic Mechanism in 1986 signaled a profound change in Lao PDR's economic model.** A decade after it was introduced, the planned socialist economy model came under strain in the mid-1980s. Growth averaged 5 percent during 1975–1986, but it was accompanied with high current account and fiscal deficits and inflation rates. This prompted the launch of market-oriented reforms, including liberalizing prices, improving management of some state enterprises, removing restrictions on domestic trade, allowing increased private sector activities in trade, initiation of fiscal, trade, and banking policy reforms, and devaluing the exchange rate and unifying the parallel and official rates (World Bank, 1988). Output initially declined as the central planning and subsidies schemes were dismantled; however, the reforms eventually stabilized the economy and introduced a shift towards a market-based growth strategy (World Bank, 1994).

20. **The supply response to the opening up was robust and a limited structural transformation was initiated.** Output expanded on average by 6.3 percent per year during the 1990s, including due to the expansion of the export-oriented labor-intensive garments production. However, the second half of the 1990s also saw the launch of large hydropower projects which defines Lao PDR's growth model even today. Services shifted from public sector to commercial activities (transport, trade). The reforms put into motion a process of structural transformation driven by strong productivity gains. Total factor productivity (TFP) explained most of output growth during the early 1990s; however, its contribution declined as the pace of reforms was not sustained.

21. **With increased opportunities, openness brought risks which, combined with underdeveloped economic management resulted in an uncertain end to the 1990s.** Lao PDR's strong links to Thailand (three-quarters of all foreign direct investment [FDI] in Lao

PDR and 30 percent of all exports at the time) made it vulnerable to the 1997 Asian financial crisis and resulted in lower investment and trade flows. This was compounded by weak economic management domestically and led to a massive loss in the value of the domestic currency and high inflation (International Monetary Fund, 1999) adversely affecting living conditions and private consumption. By 1999, income per capita was US\$268, a modest increase from US\$216 at the start of the decade. While the economy recovered quickly, the spillovers from the crisis shape the views on integration even today.

Natural resources became the growth engine in the 2000s

22. Growth picked up during the 2000s reflecting a buoyant global economy and a surge in resource-related investment. Average GDP growth accelerated to around 7 percent as tighter macroeconomic policies after 2001 reduced inflation and stabilized the exchange rate, while a favorable external outlook brought in large investments in mining and hydropower. These trickled down into higher output in other sectors of the economy; but, had a modest impact over fiscal revenues (Box 5) and created few good jobs. Compared to regional peers, the extent of structural transformation lagged as non-resource sectors performed weakly. Still, by 2015, GNI per capita reached US\$1,740 reflecting strong growth but also appreciation of the currency.

23. The power sector started a robust export-led expansion in the mid-2000s as investors began to tap into the ample hydro potential to meet the demand from the fast-growing region. The construction of the Nam Theun 2 (NT2) power plant (project cost of US\$1.2 billion, or around 25 percent of annual GDP in the construction period, and installed capacity of 1,080 MW) signaled the start of rapid development of the sector (Box 2). The projects that followed boosted investment in the sector from US\$183 million in 2005 to above US\$2 billion by 2015. Installed capacity increased from less than 700 MW in 2005 to around 6,000 MW in 2016. When it started production in 2010, NT2 alone more than doubled the total power output adding 2.7 percentage points to the overall growth of 8.5 percent. Hongsa lignite plant is projected to have a similar contribution to growth in 2016 and 2017. While around two-thirds of the installed capacity is exported, the fragmentation of the transmission system as well as rapid demand growth keeps Lao PDR reliant on power imports. The sector generated few jobs directly (around 20,000 jobs) and contributed up to US\$132 million to fiscal revenues in FY14/15, or 1.1 percent of GDP and 4.7 percent of government revenues. It also improved the domestic supply allowing for electrification to reach close to 90 percent of households and providing a reliable input to businesses. Tax exemptions and low royalty rates may mean that fiscal revenue growth will be less than commensurate to the increase in production; however, will increase substantially after 2030 as the concession arrangements expire and assets are transferred to the Government.

24. Going forward, it will be important for Lao PDR to adequately manage and monitor the large number of hydropower projects under construction and operation and to secure markets for its rapidly growing power generation capacity. The rapid growth in the sector imposes high demands on the Government with regard to management and monitoring of the construction and operation of power facilities to assure that there are no shortcomings in the construction and operation that could pose public safety and

structural sustainability issues as well as in ensuring the social and environmental aspects of water use are adequately addressed. In addition, power generation may be growing faster than the ability to sell the produced electricity putting a growing burden on Electricité du Lao (EdL) and a contingent liability for the budget. EdL's role as off-taker of power generated in Lao PDR is increasing and as early as 2017 some of this could be surplus power.⁴ The precise magnitude of the surplus and arrangements for its marketing are uncertain, but much, if not all, would need to be purchased by EdL because it is either the project developer or signatory to a Power Purchase Agreement that commits the company to purchase the project's power. Therefore, poor financial performance and high indebtedness of EdL could pose significant risks to the budget solvency, as well as to sustainable sector development.

25. Following an initial boom in the mid-2000s, the mining sector has not been able to emulate the success of the power sector. A 'boom' period began in 2003 with the start of exploitation at the Sepon mine (copper cathode and gold)⁵ followed by the commissioning of the Phu Bia mine (copper concentrate and gold). Both mines have posted sound economic and social performance records.⁶ The rest of the sector includes smaller-scale operators, with often poor operational, environmental, and fiscal performance, as well as a segment of small-scale and artisanal domestic miners. Output growth stagnated after 2011 in response to lower demand and prices as well as maturing of operations at the two big mines and contributions to the budget are down from US\$290 million in FY12/13 to an estimated US\$195 million in FY14/15. The two large mines face an effective tax rate which is not low when compared internationally; however, the contribution from the rest of the sector is very low. A number of ambitious plans have been proposed, but none appear to be underpinned by reliable reserve estimates. There is general perception that the State and local economy, particularly the poor and vulnerable rural population, have not received a fair share of the benefits due to generous tax concessions, weak enforcement of environmental and social standards, and limited linkages with the rest of the economy. This prompted the authorities to extend the moratorium on issuing new licenses to review operators' compliance with environment, social, and other contract requirements.⁷ Still, despite the moratorium being in place, the number of issued licenses increased from 230 to 285. A review of the existing licenses found out significant shortcomings in the performance of concessioners with the authorities reporting that around 50 licenses have recently been revoked. Without a clear legislative framework and with poor governance, investment in exploration has been low resulting in limited understanding of the geology and mineral resource base.

⁴ The surplus is the amount of power projected to be available in any given time period, net of what is required to (a) serve domestic load, including new industrial loads and (b) supply power under any firm trading arrangements.

⁵ Gold production was stopped in December 2013 due to lower ore quality.

⁶ Socioeconomic surveys, conducted every two years, report substantial increase in disposable income, significant local procurement of supplies (excluding fuel), and improved social indicators such as schooling, health, and others.

⁷ Certain operations such as coal exploitation for the domestic industry were exempted from the moratorium. Other exemptions have also been granted for new license approvals in areas where industrial development is promoted or for license applications received before the moratorium was announced.

Box 2: Lao PDR's power sector – driving growth but in need of better direction

Lao PDR is capitalizing on its hydropower potential and aiming to increasingly provide more power to Southeast Asia. A massive investment program increased the installed capacity in the system from 640 MW in 2000 to around 6,000 MW by 2016. Most energy is supplied from around 30 hydropower dams. In addition, the Hongsa lignite plant (1,878 MW), few biomass plants (35 MW), and local industry thermal plants also provide electricity. More than 40 dams are currently under construction and once completed (by around 2020) will boost installed capacity to above 10,000 MW. Additional 24 projects (installed capacity 1,624 MW) are in design/negotiations phase. So far, most dams are on tributaries to Mekong which limited the transboundary implications; however, some proposed dams are contested in the broader region. Lao PDR is also exploring other renewable energy projects (solar, wind); but there is only limited analysis of the potential.

With limited domestic financing, Lao PDR encouraged foreign participation in the sector, largely through 'build-operate-transfer (BOT)' arrangements with concession periods of around 30 years. Power production is largely exported (mostly to Thailand, generating exports of US\$600 million and fiscal receipts of US\$132 million in 2014) via dedicated transmission lines, while around 5–10 percent of production is delivered to the national power grid. Power purchase agreements with Electricity Generation Authority of Thailand (EGAT) have allowed developers access to long-term affordable financing. Western companies account for around 40 percent of the existing installed capacity; however, Thailand is the largest investor in the projects currently under construction (above 50 percent of installed capacity) due to its strong demand, need to diversify its energy mix, and reluctance to build new energy infrastructure domestically. Chinese companies, supported by near-concessional financing from China's EXIM Bank and Development Bank, are having an increasing role. Vietnam's role remains limited with few plants that appear to have faced some delays due to price negotiations and technical issues.

The transmission grid has not kept pace. The central part of the country is not yet connected to the southern part, while parts of the country cannot be supplied by domestic generation and require imports of electricity. On the distribution side, the electrification rate increased from 15 percent in 1995 to close to 90 percent in 2015; though the remaining unserved areas are remote and difficult to reach. Information on quality of supply is not easily available; however, according to the 2012 Enterprise Survey fewer firms report electricity-related problems compared to their peers in EAP.

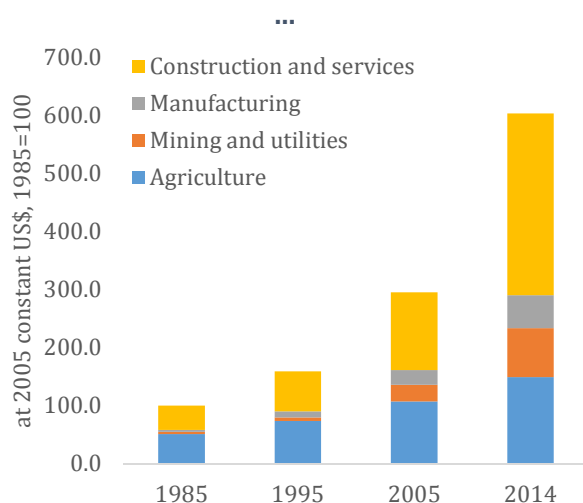
26. Depletion of forests added to demand, however, it also undermined long-term growth. The country has the highest percentage of forest cover in Southeast Asia and one of the highest global rates of species endemism (that is, being unique to Lao PDR). However, deforestation and forest degradation is rapid: the estimated forest cover has declined to around 40 percent of the territory in 2010 (from 70 percent in 1940 and 47 percent in 1992). Excessive salvage logging associated with mining and hydropower development, illegal logging, expansion of agriculture and urbanization, and infrastructure development have all contributed. Based on mirror data,⁸ the value of Lao PDR wood exports in 2014 was US\$1,675 million, a fivefold increase from 2010, making it one of the biggest export items. At the same time, fiscal revenues were negligible until recently (up to US\$20 million a year), but increased to US\$67 million, or around 0.5 percent of GDP in 2015. Importantly, such trade flows took place at a time when a government decision banned most exports of timber suggesting a disconnect between policies and their implementation and pointing to

⁸ Mirror data refers to trade data produced by Lao PDR's trading partners. Data reported by Lao PDR Customs is significantly below mirror data. Data on logging and trade flows are unreliable and these calculations should only be considered as approximate.

weaknesses in tax, inspection, and customs agencies. Encouragingly, the experience with the implementation of the May 2016 decree on timber management is more positive.

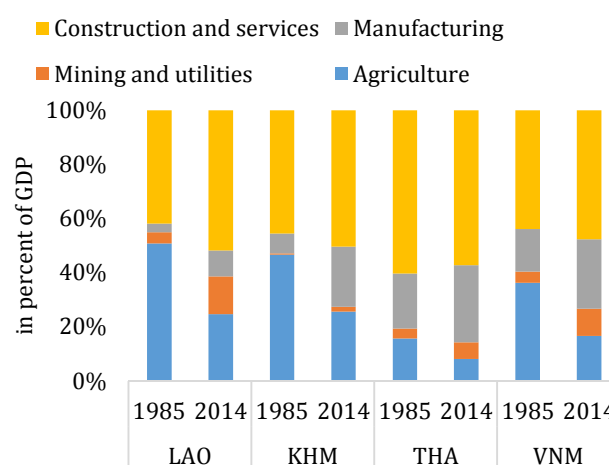
27. Out of natural resources, strong growth in construction and services was offset by mediocre performance in agriculture and manufacturing. Agriculture, where up to two-thirds of the labor force is engaged, grew at about 3.7 percent on average in the past decade, just slightly above the growth in hours worked. There are signs of greater commercialization and diversification of agriculture in recent years; however, subsistence rice farming continues to dominate. Manufacturing growth has been stagnant, keeping employment in the sector at around 220,000 in 2012 (in comparison, the number of Lao PDR migrants to Thailand is estimated conservatively at 250,000). The sector remains small and dominated by garments and food processing. A few sectors have emerged recently (assembly and equipment parts), albeit from a low base and largely confined to the special economic zones (SEZs). Investments in the power sector boosted output in construction while more recently, the sector benefited from growth in public investment and FDI in commercial and residential real estate.

Figure 8: Some structural transformation



Source: United Nations (UN) National Accounts dataset.

Figure 9: ... but, different compared to region
Share in value added, 2005 US\$, in %

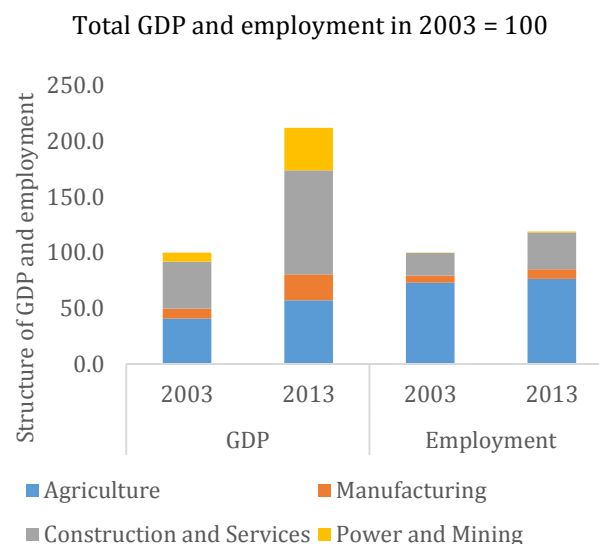


Source: UN National Accounts dataset.

28. Services expanded strongly but remain underdeveloped and concentrated in traditional, lower-value-added activities. Trade increased as incomes grew; however, it remains characterized by low technology and productivity reflecting prevalence of traditional small-scale family-run shops creating low-paid vulnerable jobs. None of the leading global retailers, already well-established in the region, are operating in Lao PDR. While the low average household incomes, population density, and car ownership rates may prevent their expansion in Lao PDR, restrictions on market entry are also contributing with Lao PDR scoring 100 (most restrictive) on the Services Trade Restrictiveness Index (STRI) for retail trade. In tourism, improved connectivity and the growing affluence of Asia resulted in a 17 percent average growth rate in arrivals between 2005 and 2015, with tourism revenues estimated at US\$725 million making it one of the biggest foreign exchange earners.

Still, tourist arrivals are a fraction of arrivals in neighboring countries. Financial intermediation increased as the sector was opened up; though, this may have exacerbated macroeconomic risks. The information and communication technology (ICT) sector expanded following the introduction of some competition in the early 2000s; however, it still trails other countries in EAP suggesting growth opportunities. Growing wages and recruitment in the public sector boosted public sector services (public administration, education, health) and a nascent private sector emerged in education and health. Still, a significant part of demand for these services is unmet and is supplied from neighboring countries.

Figure 10: GDP driven by resources, job creation by services



Source: (World Bank, 2014b).

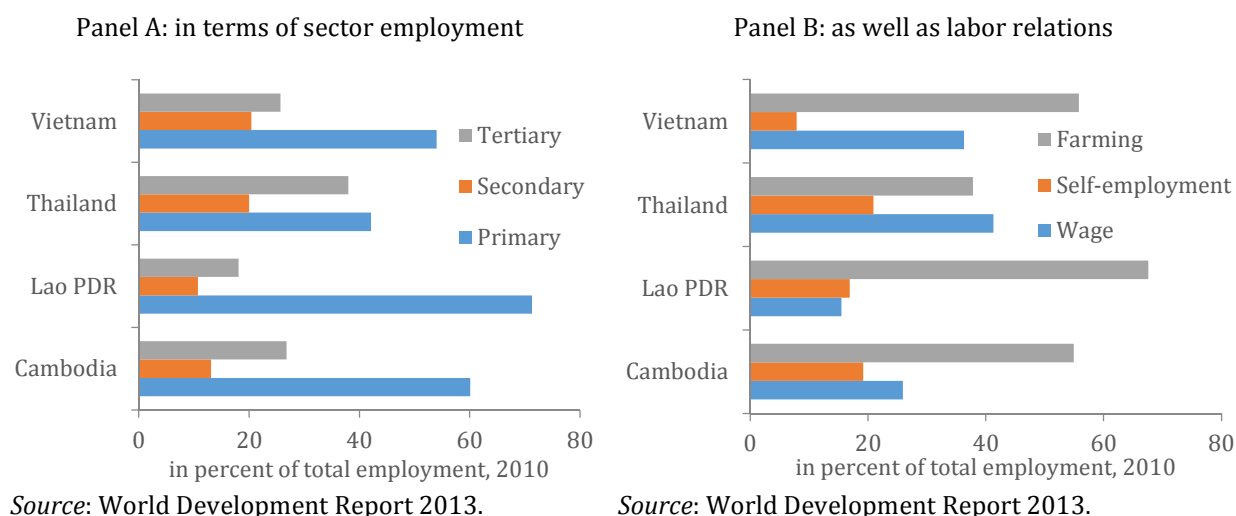
Few goods jobs were created keeping underemployment high and encouraging migration

29. **Most labor remains engaged in agriculture and self-employment.** Total employment reached 3.2 million in 2012/13, with 62 percent of it engaged in subsistence agriculture (down from around three-quarters a decade ago) and another 20 percent in self-employment. The participation rate is around 88 percent, with insignificant gender differences and is among the highest in ASEAN. Most of those out of the labor force are in school, which is expected given the young demographic profile. The official unemployment rate is 1.7 percent; though this is unlikely to reflect a functioning labor market. Most jobs are in low-productivity and informal sector activities and underemployment is high. About 40 percent and 56 percent of people self-employed in household businesses and family farms, respectively, work less than 40 hours a week. This compares to only 22 percent among those in paid work. The depth of underemployment is especially acute in agriculture, where a third of those employed in the sector worked for just 25 hours a week or less in 2012/13.

30. **Employment expanded but few good jobs were created in the private sector.** Almost 500,000 jobs (farm and non-farm combined) were added between 2003 and 2013. However, a few issues raise concerns. First, growth created few jobs in the private sector. Only 160,000 non-agriculture wage jobs in the private sector were created over 10 years, clearly insufficient to absorb the growing labor force. Second, a large proportion of jobs created were in low-productivity domestic-oriented sectors such as retail trade (23 percent) and agriculture (18 percent), while manufacturing job creation disappointed, especially in the second half of the decade, adding less than 6,000 jobs. This pattern is at odds with developments in the rest of the EAP region, where strong job creation in industry and

services offset job reduction in agriculture. Third, even though wage employment nearly doubled from 9 percent in 2002/03 to almost 18 percent in 2012/13 (with the public sector accounting for a third of the increase), still, Lao PDR has far more people engaged in primary sectors and very few wage earners (Figure 11). The EAP experience suggests that wage employment is associated with higher quintiles in the income distribution.

Figure 11: Lao PDR has seen the smallest transformation of the labor market compared to peers



31. Wages are low, but it is unclear if it is sufficient to compensate for the low level of labor productivity. The minimum wage was US\$120 per month in 2015 and 2016; a level that is higher compared to Myanmar, comparable to Cambodia, and not excessive compared to countries at similar levels of development including the selected peers (Botswana US\$100; Bolivia US\$240; Nepal US\$94, and Zambia US\$212). Still, the increase in labor costs has outpaced productivity improvements, especially in manufacturing. This has pushed unit labor costs up closer to the regional average, potentially reducing the labor cost advantage.

32. The returns to higher education are significant. These range from three to four percent for each additional year of education and could be as high as 7 percent for women. More education endows workers with better skills, but also with opportunities to access better jobs that provide higher returns on their investment (World Bank, 2013). Over half of the wage earners have a vocational or university education, and workers with higher education are more likely to pursue wage employment than self-employment.

33. The limited labor market dynamics mask an increasingly mobile labor force, both domestically and outwards. The labor market is relatively fluid (The World Bank Group, 2016); though agriculture workers find it most difficult to move to other sectors. In addition, survey data (Finmark Trust, 2015) suggest that 23 percent of the population receives remittances, 14 percent from internal migrants and 11.5 percent from abroad.

- Despite somewhat burdensome internal mobility requirements, domestic migration is significant. A large part of it is rural-urban, in many cases to Vientiane. Between

2005 and 2015, the urban population increased by 40 percent compared to a 6 percent increase in the rural population. Also, migration between provinces takes place. Population growth between 2005 and 2015 averaged 1.4 percent per year at the national level, ranging from 0.3 percent in Huaphanh to 2.9 percent in Sekong, which is unlikely to be explained by vital statistics.

- Labor mobility costs do not appear to be excessive when compared to other ASEAN countries (The World Bank Group, 2016). Wholesale and retail trade, and hotels and restaurants are important stepping-stone sectors out of agriculture. Female workers entering the garment sector are most likely to come from agriculture; however, this does not appear to be a stepping-stone sector as workers exiting garments are most likely to return to agriculture.
- With limited job creation domestically, external migration provided opportunities for a large part of the population, especially the highly educated. The stock of emigrants was estimated at around 5.7 percent of the population in 2010 with 37.4 percent of the tertiary-educated population emigrating (World Bank, 2010b). Later studies increased the estimate of migrants to close to 10 percent of the population. Established networks, cultural and linguistic similarities, and higher wages make Thailand the preferred migration destination.

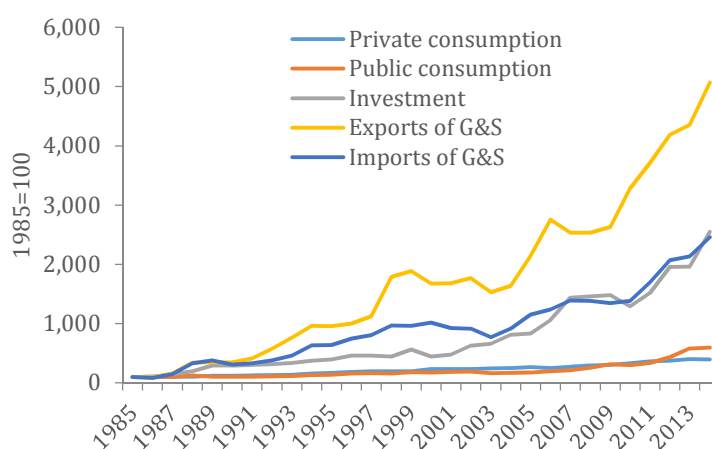
34. **However, outward migration is already creating challenges.** The country is losing its brightest and domestic firms are competing with external labor demand which is increasing their costs even for unskilled labor. Furthermore, the illegal aspects of migration (human rights violations; trafficking and prostitution) are widespread.

35. **Migration also has a gender dimension.** The majority of irregular migrants from Lao PDR to Thailand are women, most of whom work as domestic helpers. (United Nations Office on Drugs and Crime, 2015). Formalizing migration flows and providing better access to social services will improve the well-being of these migrants.

A booming resource sector and limited job creation resulted in investments-led growth with limited consumption gains

36. The dominance of the resource sector and modest income gains from labor meant strong increase in investment and external trade and a decline in the share of consumption. On average, gross capital formation accounted for 4 percentage points of GDP growth (more than half of all growth), as its share of GDP increased from below 15 percent of GDP between 1985 and 1994 to above 30 percent in the last decade. The hydropower and mining sectors accounted for 55 percent of all

Figure 12: Strong growth in investment and trade ...



Source: UN National Accounts dataset.

approved investments between 2005 and 2015 with agriculture adding another 13 percent. At the same time, consumption grew much slower, slightly more than doubling in per capita terms over a period of three decades with its share in GDP declining from 90 percent of GDP in 1985 to around 52 percent by 2014. With limited gains from job creation and wage growth, consumption was supplemented by increasing remittances and inflows from illicit activities. In the absence of a well-functioning and comprehensive social safety net, public transfers did not contribute to consumption growth. Imports increased due to high import content of investment, which translated later into growing exports of electricity and minerals.

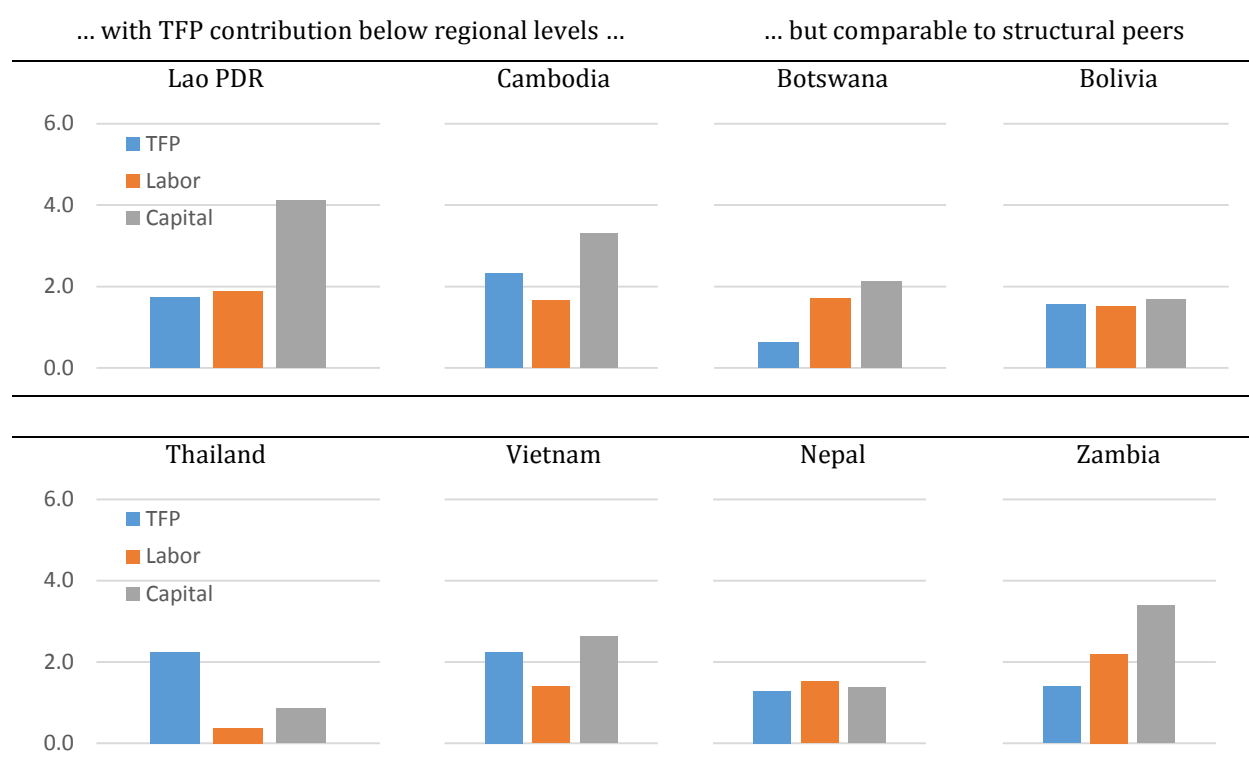
Box 3: Illegal activities in Lao PDR

Porous borders and ineffective enforcement has facilitated a range of illegal activities in Lao PDR. Lao PDR is source of and a major transit point for illicit trade in wildlife largely destined for China. Illegal trade in timber is large. Drugs are a significant problem with 1.4 percent of adults using methamphetamine in 2010, on par with Thailand but significantly above the rest of the region. The country accounts for 1.3–3 percent of the global area under opium cultivation with current production levels only a fraction of the output in the 1990s (United Nations Office on Drugs and Crime, 2014). Poppy cultivation is linked mostly to villages in peripheral, difficult to access locations (United Nations Office on Drugs and Crime, 2013). At the same time, Lao PDR is a major transit point supplying drugs, mostly produced in Myanmar, to neighboring countries. The country has taken steps to ensure compliance with a number of Financial Action Task Force recommendations on anti-money laundering; however, this will be a longer-term agenda. In addition, illegal migration is an issue with around 80 percent of the 44,000 people estimated to migrate to Thailand annually from Lao PDR, being irregular migrants.

Competitiveness challenges affecting the non-resource sectors

37. **Productivity growth has been low in Lao PDR compared to peers.** Capital accumulation, mostly in the power and mining sectors, propelled growth, while the contribution of TFP to overall growth over the last decade was only 1.5 percentage points,⁹ the smallest in the region and actually below its levels in the 1990s as the catch-up potential introduced with the early reforms was exhausted. At the same time, TFP contribution to overall growth was in line with levels seen in some of the structural peers (Bolivia, Nepal, and Zambia). Low TFP actually meant that Lao PDR workers did not become much more efficient and not a lot workers moved from less-productive to more-productive sectors.

Figure 13: Capital accumulation drove growth ...



Source: World Bank Macro-Fiscal Model (MFMod).

Agriculture has potential but is held back by economy-wide and sector-specific constraints

Snapshot of the sector

38. **Slow growth in productivity and profitability in agriculture limited its contribution to poverty reduction.** Agriculture was estimated to have contributed to 44 percent of the reduction in poverty in Lao PDR, the largest contribution among all sectors.

⁹ See (Burns, Van Rensburg, Dybszak, & Bui, 2014) for the methodology of the calculations.

Yet, this was below the 65 percent in Cambodia during 2007–2011, suggesting that significant potential is not utilized.

Table 5: The main challenges in the agriculture sector

Main issues	Implication
<i>A large number of workers each produce very little and hence each make only a meager living.</i>	Lao PDR has around 2 million adults engaged in agriculture, or 64 percent of the workforce, making Lao PDR one of the most agrarian economies in East Asia. In 2014, these workers generated value added per hectare of US\$578 (at 2005 U.S. dollar prices), compared to US\$994 in Thailand and US\$1,380 in Vietnam. Between 2000 and 2014, the agricultural growth rate per capita in Lao PDR was only 1.4 percent per year on average, compared to 2.4 percent in Cambodia and Vietnam. Most growth came from expansion of land under cultivation rather than productivity gains, contributing to deforestation.
<i>There is excessive focus on rice production which limited diversification.</i>	Concern over rice self-sufficiency has led to a narrowly conceived food security strategy. Most farmland is under rice, and the extent of crop diversification is limited, though this may be changing (at least in the uplands). Most production takes place during monsoon season, as the lack of water management infrastructure and skills hampers production during dry season. A gradual shift away from rice production can help achieve a broad set of development objectives. It will increase farm incomes, improve nutrition and make agriculture more climate smart. Still, this change is unlikely to be endorsed before the country achieves higher rice surpluses. Now, rice production only marginally exceeds domestic consumption with the surplus estimated at 7 percent of production compared to 23 and 27 percent in Vietnam and Thailand, respectively.
<i>Commercialization of production is low</i>	Only 30 percent of farm households in 2010/11 reported to produce mainly for sale, a significant improvement from 6 percent in 1989/90, but still below the rates of commercialization seen internationally.
<i>Quality of produce is low.</i>	Although most of the country's rice is glutinous and of higher value than other types of rice, Lao milled rice suffers from low milling quality and weak branding and marketing campaigns, making it unattractive to consumers in neighboring countries (and lowering its price). The same applies to other crops, such as coffee and other fruits and vegetables.

39. **Agriculture suffers from some of the competitiveness challenges that keep the costs of doing business high for other sectors as well.** Improved connectivity, from hinterlands to domestic markets and to processors and consumers across borders, and a more efficient business environment can reduce costs and increase competitiveness of agriculture. Non-tariff barriers have a disproportionate impact over agriculture. For example, the inability to certify sanitary and phytosanitary standards effectively excludes Lao PDR produce from foreign markets and requires significant upgrading of the product quality infrastructure in Lao PDR. Also, anecdotal evidence suggests that non-automatic licenses in large neighboring countries restrict market access, for example by limiting the number of importers of Lao products on their markets.

40. In addition, a range of sector-specific issues affects productivity and profitability. A better-functioning food supply chain can increase value added and incomes in agriculture, but currently, there are weaknesses along the entire chain. More specifically:

- At the farm level, low farm productivity reflects poor availability of high-quality seeds and other inputs,¹⁰ weak farm advisory services, limited irrigation and drainage infrastructure, and regional differences in social and climatic characteristics (World Bank, IRRI, and FAO, 2012). Consequently, the volume and quality of produce is not consistent. Land under irrigation needs to increase, but also irrigation practices need to change and include drainage and plot-controlled options (currently, most irrigation systems use flood irrigation which is not suitable for non-rice products). Presently, in many cases the Government provides the pumps but requires farmers to build the canals and organize water user groups without capacity building which does not provide incentives for efficient management of the infrastructure.
- Also, unsecure land tenure and the lack of off-farm jobs in rural areas hamper a farmland rental market that could promote market-based land consolidation, which keeps farms small (1.7 ha of cultivable land per rural family). This may be changing gradually with increasing use of contract farming (where farmers provide land and labor, more typical for the uplands) or through concessions for large-scale agriculture plantations (more typical for the lowlands). The larger land plots have facilitated greater commercialization and diversification, including into production of coffee, tobacco, bananas, beans, and so on.
- While large-scale plantations promote commercialization, in some cases they had a questionable impact on communities. Information on experience with plantations is limited and fragmented, but it points to shortcomings in some cases. Some plantations increased incomes and jobs and improved connectivity; however, frequently they also resulted in loss of livelihoods (no compensation, reduced livestock, and non-timber food products), pollution, and land conflicts prompting the introduction of a moratorium on new concessions.
- Market fragmentation on the supply side and concentration on the demand side further weaken the supply chain. Prices decline following the harvest as farmers rush to sell their produce while only few larger millers and agro-processors have the financial resources to purchase larger quantities of raw materials. For rice, there are around 9,000 medium and large mills; however, only half of the capacity is utilized as millers lack affordable finance to purchase paddy and store rice. Prices increase fast

¹⁰ According to the Enabling the Business for Agriculture's cross-country report (<http://eba.worldbank.org/>), Lao PDR lags behind other EAP countries with its scores on the seed and agriculture machinery indicators. Though Lao PDR performs better on seed registration, it faces obstacles in timely introduction and production of high-quality seeds. Dealers importing tractors face delays and high-cost procedures, while the standards and safety for operators of tractors are very low. On the fertilizer indicator, which measures laws and regulations on the registration, import, and quality control of fertilizer products, Lao PDR performs better than a few other EAP countries in regulating quality fertilizer but it preforms below average when compared to the broader sample of 40 countries included in the cross-country assessment.

afterwards as the few larger millers can influence the price at which they sell. Very few mills work directly with farmers and farm groups through contract farming. For rubber, evidence suggests that only few companies are allowed to import into China keeping prices for farmers low, while in coffee, until recently one exporter accounted for a disproportionate size of the market; though, concentration may have fallen slightly in recent years as foreign investment entered the sector.

- Most agro-processors and rice mills have low efficiency. Few millers have modern equipment (though there has been some improvement recently through FDI) with typical paddy—rice efficiency levels of around 50 percent (head rice and broken). Apart from rice, post-harvest processing of coffee is poor and only few coffee exporters have equipment to accurately sort by size, density and color. Similar issues affect other fruits and vegetables, where in addition, packinghouses and processing plants remain too small to be able to directly participate in larger food chains. To circumvent this, Lao processors operate through Thai intermediaries which is also helping them meet increasingly more stringent quality and safety standards of foreign retailers.

41. The 2015 policy for rice development in high-potential production areas of Lao PDR does underscore the importance of a value chain approach. Cambodia and Vietnam provide good examples on developing outgrower seed production, rice mills, contract farming, food safety, marketing, and brand development which can be replicated. This will also allow for the development of ‘agribusiness’ as more farm products can be (cold) stored, transformed, packaged, transported, distributed, and served to make them available to, and comply with, the preferences of consumers.

42. Similar strategies can increase returns for other crops and sectors. Lao PDR has a sizeable coffee-growing industry which has seen robust growth rates in recent years while climate conditions are favorable for growing various fruit and vegetables. However, both sectors are facing challenges in meeting scale and quality requirements and largely focus on supplying raw produce to neighboring countries (Vietnam for coffee and maize and Thailand for fruits and vegetables). Encouragingly, the newer business model on coffee aims to improve quality but also develop a consistent and unique product that can fetch a premium relative to international commodity price. While capture fisheries appears to be under stress, aquaculture has grown fast and offers potential.

43. Government support has been low and with limited effectiveness. Public funding of agriculture has been low historically, which has made it difficult to achieve sustained impacts (World Bank, IRRI, and FAO, 2012). Allocations have increased in recent years, but the overall budget remains just around 1 percent of GDP, or around 3.3 percent of government spending, compared to around 6.4 percent of GDP in Vietnam and 4.5 percent of GDP in Southeast Asia. Furthermore, most programs focus on paddy production, with limited support for other produce and market development. The quality of some programs is low, though it is gradually improving. Training and agriculture extension services can improve human capital of farmers enabling them to increase their productivity (Figure 26) and integrate them better in commercial food value chains. Integrating climate sensitivity

into irrigation and other public programs would make farm systems more climate resilient. Agricultural diversification and food safety programs would help reduce malnutrition. Importantly, developing a brand recognition for its rice and other products can help Lao PDR increase its export price and earn higher incomes for its farmers. The Cambodia experience in recent years is a model that can be used.

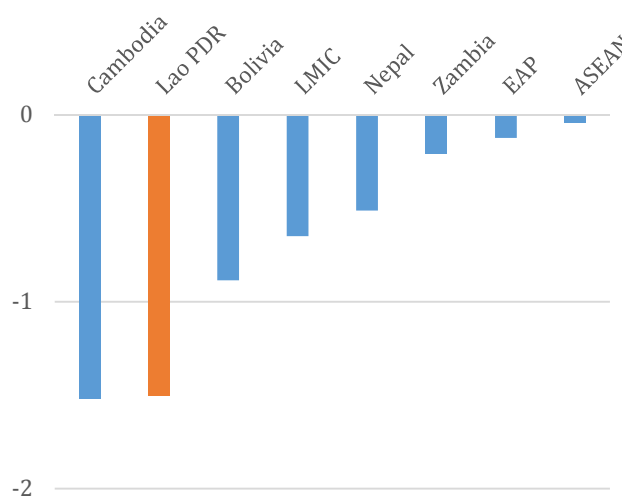
The non-farm sector needs a better business environment, that is indiscriminately enforced, more skilled labor, and better connectivity

Snapshot of the sector

44. **The structure of the private sector in Lao PDR reflects the characteristics of a small, low-value-added and inward-oriented economy.** Around 98 percent of registered firms are small, actually most of them micro (less than 10 employees), and engaged in non-tradable sectors or sectors producing low-value-added goods and services. According to the 2012 Enterprise Census, almost half of all employment is in firms with five workers or less and 63 percent of all firms are in the retail sector. Only 12 percent of firms are in manufacturing and with few exceptions, mostly involved in low-value-added activities (Box 4). While the contribution of micro, small, and medium enterprises (MSMEs) to employment is large, their contribution to GDP is modest; it is estimated that MSMEs contribute around 16 percent of GDP, compared to 40 percent in Thailand, 32 percent in Malaysia, and 32 percent in the Philippines. This is also a reflection of the low productivity of MSMEs. The export basket remains undiversified, unsophisticated, and dominated by low-value-added products with few linkages to products with higher value addition. Until recently, the country was not catching up with regional neighbors with regard to the sophistication of its export basket (Record & Nghardsaysone, 2010). In terms of skill content, Lao PDR exports have the lowest ratio of skilled workers relative to comparators in the region and at similar income levels (The World Bank Group, 2016). At -1.5, Lao PDR's index of economic complexity is on par with that in Cambodia; however, significantly below regional and structural peers. The private sector is poorly integrated in cross-country supply chains; 72 percent of companies source most of their inputs domestically and 94 percent serve only the domestic market. A handful of companies, mostly located within SEZs, appear to be more integrated in regional supply chains and account for a growing share of exports (albeit on a very low basis).

45. **Squeezed by rising wages and non-improving labor productivity, the profitability of the manufacturing sector suffered.** Various measures of productivity

Figure 14: Economic Complexity Index



Source: Observatory of Economic Complexity.

Note: Higher score is better.

(output per worker, capital intensity, TFP) of Lao PDR manufacturing firms are low compared to countries at similar level of development and have not improved significantly between 2005 and 2012. Despite stagnant productivity, wages increased and have eaten into the profit margins of firms (World Bank, 2014). On the other hand, profitability in services increased reflecting a changing sectoral structure (financial intermediation, telecommunications, and so on) in a less-competitive environment (entry is still restricted in some sectors) allowing firms to more easily absorb higher labor costs. Continued appreciation of the real effective exchange rate (up to 30 percent over the last five years) is further undermining competitiveness; and adding to the weaknesses in product and factors markets.

46. There are too few firms and the few which exist struggle to grow.

According to the Enterprise Census, around 125,000 entities operated in Lao PDR in 2012. This translates into around 19 non-large companies per 1,000 persons, compared to 33 micro, small, and medium firms per 1,000 in Thailand, 30 in Vietnam and a global average of around 31 (Kushnir, Mirmulstein, & Ramalho, 2010). Only 0.3 firms are established per 1,000 adults in Lao PDR, compared to 0.6 in Bolivia, 0.7 in Nepal, 0.9 in Thailand, 1.3 in Zambia, and 2.3 in Malaysia.¹¹ Survey-based firm transition matrices suggest little progression—39 percent of micro firms grew to be small firms between 2011 and 2013, but only 5 percent of small firms grew to be medium sized. Only 17 percent of manufacturing firms reported buying fixed assets in the 2016 Enterprise Survey, significantly below 42 percent in the EAP on average and limiting growth opportunities.

Table 6: Lao PDR firms invest less

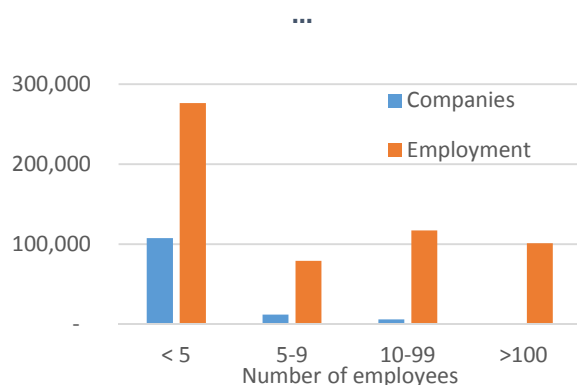
(percent of firms investing in fixed assets)

	LAO	EAP	KHM	VNM	MMR
<i>All firms</i>	47	51	47	61	46
<i>Manufacturing</i>	38	54	52	72	48
<i>Services</i>	53	49	45	55	47
<i>Small (5–19)</i>	42	42	46	44	39
<i>Medium (20–99)</i>	55	63	63	70	63
<i>Large (100+)</i>	56	69	52	88	61

Source: Enterprise Surveys.

Note: Lao PDR data is for 2012; KHM (Cambodia) for 2013, VNM (Vietnam) for 2009, and MMR (Myanmar) for 2014.

¹¹ World Bank's Entrepreneurship Survey and database (<http://econ.worldbank.org/research/entrepreneurship>).

Figure 15: Lao PDR firms are typically small

Source: Enterprise Census 2012–2013.

Table 7: ... and fail to grow

Transition of firms between 2011 and 2013					
Size in 2011	Size in 2013				
		Micro	Small	Medium	Large
	Micro	57%	39%	3%	1%
	Small	17%	77.2%	5%	1%
	Med.	6%	41%	52%	2%
	Large	4%	11%	30%	55%

Source: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Survey.

Box 4: Structure of the manufacturing sector

Despite robust growth in the 1990s, the garment sector has stagnated over the last decade. The industry counts around 100 companies mostly around Vientiane and Savannakhet employing around 25,000 to 30,000, largely female, employees, a number that has not changed significantly over the last decade. It was one of the first sectors to attract FDI due to low labor costs and favorable market access. It is export oriented (mostly to the European Union [EU]), importing most of the raw materials and providing little value added. The industry is small when compared internationally, with Lao PDR exports equal to around 7 percent of Cambodia's garments exports. The sector appears stuck in a low-equilibrium trap with worker dissatisfaction driving high worker turnaround, low capacity utilization, and low investment in workforce skills (World Bank, 2012). An appreciating currency, difficult access to finance, higher transit times and costs, as well as still complex trade procedures put Lao PDR at a disadvantage compared to competitors. Food processing has expanded; however, the inability to meet standards, penetrate markets, and manage the supply chain to achieve economies of scale means that Lao PDR exports most of its food products unprocessed and without much value addition. Some timber-processing industry still remains but it has been struggling to grow.

Emerging subsectors include assembly and equipment parts, albeit from a low base and largely confined to the SEZs. These are mostly foreign investments (around 70 companies so far) and parts of larger regional value chains. Most are companies that have decided to relocate part of their production, mostly from Thailand, to Lao PDR due to lower wage costs, government incentives, as well as the perceived political stability. However, they appear to be changing the structure of the Lao PDR manufacturing sector with exports reaching US\$200 million in 2014.

47. **A large part of the Lao PDR commercial sector is informal.** Informality is estimated at slightly above 30 percent of GDP in Lao PDR (Schneider, Buehn, & Montenegro, 2010); however, this is likely an underestimate. Employment figures from the Enterprise Census (at around 574,000) are significantly below survey-based estimates of non-farm employment of around 1.2 million suggesting significant non-reported economic activity. Also, 82 percent of businesses did not keep accounting records and 64 percent were covered under the presumptive tax regime (also, partly to avoid complicated taxation procedures) indicative of underreporting of economic activity. Firms interviewed during the 2015

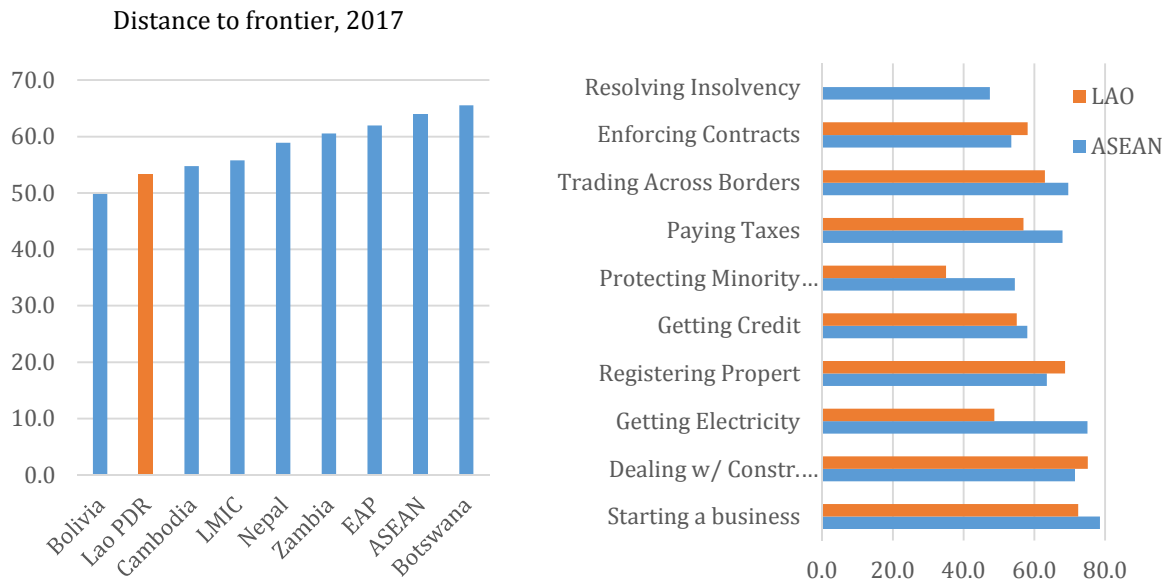
Enterprise Survey reported that the practices of the informal sector are the biggest obstacle to doing business.

48. **Lao PDR firms perform well on some gender dimensions.** A bigger percentage of firms have female ownership, more firms have female top managers and the proportion of female workers is higher compared to global averages. Female management and employment dominates in retail trade while it is lower in manufacturing. Between 2009 and 2012, female-owned firms became more concentrated in services and grew larger and more profitable compared to male-owned firms. At the same time, firms headed by females also have lower demand for financial services. A wage gap appears to exist but more likely related to differences in asset endowments rather than discriminatory practices.

Business regulations

49. **A burdensome operating environment creates incentives for firms to stay small and limits firms' ability to invest in human and physical capital to grow.** Lao PDR was ranked 139 on the 2017 Ease of Doing Business rankings, reflecting inadequate regulation (though gradually improving), but also complicated and burdensome procedures. Among the selected peers, only Bolivia has a bigger distance to the frontier (a measure of how far a country is compared to the best performer) with Lao PDR underperforming against the low-middle-income group, EAP and ASEAN averages. This generates uncertainty, high costs, affects investment, and encourages informality which results in significant unexploited opportunities for growth and job creation by the private sector. For example:

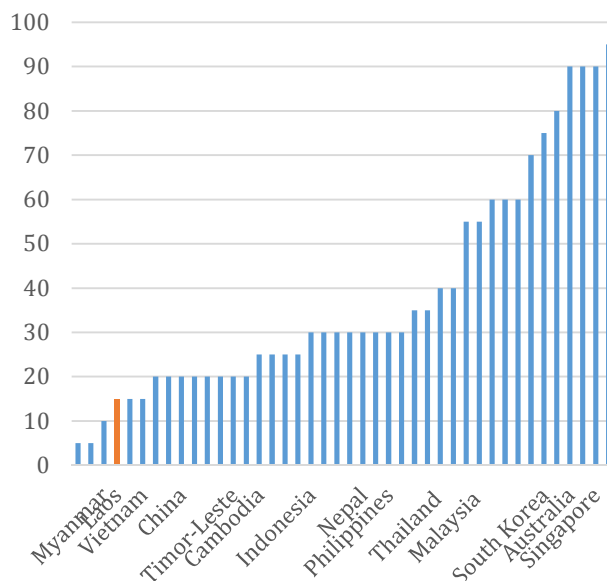
- Lao PDR has one of the most difficult procedures for starting a business globally, including a monopoly on centralized issuance of a company seal which alone takes up to a month. This is made more difficult by restrictions on market entry. Lao PDR has welcomed foreign investment in some sectors, but still has significant restrictions on foreign presence in few sectors. Also, investors are required to obtain numerous permits from various agencies which can pose a challenge, especially in areas outside the capital (U.S. Department of State, 2015).
- Other aspects of operating a business are also difficult. While tax rates are comparable to countries in the region, they have recently reemerged as a constraint to doing business with 22 percent of firms ranking it as the biggest business environment obstacle in 2015, up from 15 percent in 2012 and an EAP average of 11 percent. Furthermore, paying taxes remains cumbersome and lengthy, taking on average 362 hours to complete. Operating licenses frequently need to be renewed each (second) year, generating operational costs and uncertainty. Improved customs processes resulted in remarkable reduction in the time it takes Customs to clear goods at the border from almost 11 days in 2009 to just 2 days in 2015. Still, complex licensing and documentary requirements for trade and other behind-the-border processes still inflate the overall time to import and exports. Lao PDR's ranking for trading across borders remains poor at 120, particularly challenging for a small, landlocked, economy.

Figure 16: A difficult business environment

Source: 2017 Ease of Doing Business.

50. The mirror image of the weaknesses in public sector governance is underdeveloped institutions to support a more market-based economy and a difficult business environment.

Property and creditor rights, critical for the functioning of a more market-based economy, are not always clearly assigned and are frequently tested. One example is land, where incomplete land titling and a wide array of challenges (resettlement, expropriation for public, or commercial projects) prevent households and businesses from efficiently managing one of the few assets they possess and limit the development of a vibrant land market, especially in rural areas. While the right of private ownership is recognized, business contracts can be voided while the judiciary has limited experience in commercial law (U.S. Department of State, 2015). Weak collateral and bankruptcy laws (Lao PDR is ranked joint last 169 on Doing Business resolving an insolvency indicator) and a protracted enforcement process (ranked 88 in the 2017 Doing Business report on enforcing contract) further weaken property and creditor rights. One of the consequences is that banks are reluctant to use other

Figure 17: Property Rights Index

Source: The Heritage Foundation.

assets except land as collateral which prevents many small businesses and start-ups from getting credit while the use of supplier's credit is less frequent compared to the region.

51. Consequently, markets remain characterized by an uneven playing field and limited competition. First, a culture of affiliated business transactions has blurred the lines between the state and the private sector. Similar to Vietnam and Cambodia, the reform years in Lao PDR have seen a form of state advance as politicians, officials, and those with close ties to them have seized on their 'insider' access to business opportunities. Conflicts of interest are common, with officials (often acting through proxies) operating in sectors that they are charged with regulating (Gainsborough, 2012). The existence of ties between businesses and the state is undermining the competitive forces in the economy and resulting in a gap between the 'law in the books' and the 'law in practice' and an increased use of concession agreements (case-by-case negotiation of discretionary package of incentives) in multiple sectors. Coupled with limited transparency and predictability of the enforcement of regulations (Lao PDR is ranked 107, out of 144 countries, on transparency of government policy making), this undermines business confidence and limits competition with knock-on effects to other economic sectors. Next, while the number of state-owned entities (SOEs) is not excessive (around 150), they still dominate the financial sector, air transport, utilities (power, water supply, and so on) and have a significant share in telecommunications, fuel distribution, and so on. Efforts to efficiently regulate the sectors are weakened by regulators that are typically part or closely linked to the administration. For example, some state-owned banks continue to operate despite failing to meet the capital requirements while the telecom regulator maintains restrictions on market competition by mandating minimum prices.

52. The associated costs are significant. Limited competition keeps prices high for consumers and limits choices (for example in air transport, trade, and telecommunications) but also limits competitiveness of domestic producers that rely on competitively priced inputs. Crowding out a genuinely private commercial sector is another, and probably, bigger cost. Beyond its direct economic costs, commercialization of state institutions weakens the legitimacy of the state, benefits insiders, undermines government effectiveness, and lowers the appetite for reform, keeping regulatory quality low. While large companies and actors might be able to navigate such an environment (characterized by negotiation and discretionary decisions), it particularly places burden on new and smaller, including women-owned and innovative, companies, reducing the scope for inclusive growth.

Skills

53. Employers point to skills as one of the most important constraints to firms' growth. While it is not a new constraint, it appears to have gained in importance in recent years. In the 2015 Enterprise Survey, 23 percent of employers identified skills as a major constraint, compared to 16 percent in 2009. The percent of firms in the WEF Global Competitiveness Reports (GCRs) that identified inadequately educated workforce as a problem of doing business increased from 18.9 percent in 2013–2014 to 23.2 percent in 2015–2016. This compares to around 5 percent in Zambia and Nepal, around 9 percent in Bolivia and Botswana, 11 percent in Vietnam, and 13.6 percent in Cambodia. While the constraint affects all firms, it appears to be more acute for large firms and for exporters.

54. **Skills affect all job profiles.** According to the 2012 Skills Toward Employment and Productivity (STEP) Employer Survey, in almost 40 percent of attempts to hire workers, applicants lacked the required skills. This holds across the board—that is, for manager positions, specialists, as well as elementary positions. The same survey shows that nearly half of the firms in Lao PDR had no or only few applicants to a low-skilled job, a much larger proportion than in the Yunnan Province (China) and Vietnam.

55. **A mix of factors appears to be contributing to the skills problem.** Standardized tests do confirm that Lao students learn very little in the education system. Furthermore, whatever they learn may not be very useful as development of the curricula and teaching materials seems to be disconnected from the needs of the students and businesses. On the demand side, companies may be finding it challenging to attract workers as the wages they are willing to pay (determined by firms' productivity) are only somewhat higher than effective wages in the agricultural sector. Also, few firms are willing to invest in workforce training. Only 6.5 percent of firms offered formal training, significantly below 22 percent of firms in Vietnam and Cambodia and the regional and global average of around one-third of firms.

Infrastructure and connectivity: transport, electricity, telecommunications, logistics

56. **Landlocked and small, Lao PDR's domestic market is unlikely to be attractive to most foreign investors, highlighting the importance of improved connectivity to facilitate regional integration.** Membership of ASEAN and WTO has lowered barriers and increased the potential market; however, making the most of this opportunity requires the ability to move goods and provide services across borders efficiently and at low costs.

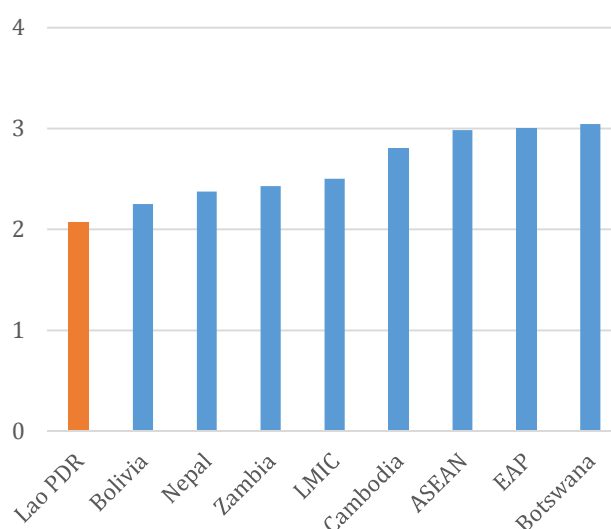
57. **Substantial government outlays on improving connectivity have reduced the deficit in hard infrastructure; but, not without challenges.** Roads and bridges have been constructed and upgraded and electricity supply and air connectivity have improved. Lao PDR's infrastructure stock is generally in line with what would be expected given the income level and actually better compared to the selected peers (with the exception of quality of roads in Botswana) (Annex 1: Understanding Lao PDR's infrastructure deficit). Furthermore, some of Lao PDR's economic centers are located in vicinity to the Thai border and rely on Thailand's extensive network. However, more investment resulted in growing public debt, including an unspecified (but significant) increase in arrears to contractors. In addition, a focus on building new roads has meant that comparatively little has been allocated to maintenance and operations. As a consequence, internal connectivity continues to suffer with a significant part of the network impassable during the rainy season (particularly secondary roads) while international links are deteriorating due to improper maintenance. A huge backlog on maintenance means that the Road Maintenance Fund is estimated to be able to cover only 30 percent of costs needed to gradually improve the quality of the road network. Domestic transport costs appear to have declined but at around US\$0.07 per ton per km are comparable to Cambodia but above US\$0.04 per ton per km in Thailand and US\$0.05 per ton per km in China. Businesses also report limited availability of transport services (Srivastava & Kumar, 2012). Costs for international transport have also declined, from US\$0.13 per ton per km in 2013 to around US\$0.11 per ton per km in 2016, still a

relatively high level and similar to Cambodia and landlocked countries in Africa. Around a quarter of firms identified transport as a major constraint in 2015; however, 4 percent consider it the biggest obstacle, lower than in EAP countries on average. Electricity has reemerged as a constraint with 13 percent of companies identifying it as the biggest obstacle in 2015; somewhat surprising given the increase in electrification and generation.

58. As hard infrastructure constraints are gradually addressed, soft constraints are gaining in importance.

As noted earlier, overall border clearance times can remain long due to poor coordination among border agencies, lack of risk-based approach and non-tariff measures. The cost of clearing cargo in Lao PDR is roughly double that in Vietnam driven largely by informal fees (World Bank, 2014e). In addition, Lao PDR is ranked 152 in the Logistics Performance Index (the lowest in ASEAN and among the selected peers), and performs particularly poorly in logistics competence, tracking and tracing, and timeliness. Also, the increased perceptions of electricity as a constraint to doing business could reflect significant time and procedures involved in submitting applications and getting approvals (Lao PDR requires 6 procedures that take 134 days to complete compared to an EAP average of 4.7 procedures and 74 days).

Figure 18: Logistics Performance Index



Source: World Bank.

59. Availability and affordability of second-generation infrastructure hampers firms' growth. The price of ICT devices and internet service make these a luxury for most of the population and businesses in Lao PDR, in part due to regulatory issues. As a result, the economy is yet to benefit from new technologies and ICT applications that could help overcome challenges from being landlocked. Only 13 percent of companies have their own website, compared to 37 in EAP and 24 percent communicate with clients via e-mail compared to 61 percent in EAP.¹² Similarly, Lao PDR currently ranks 117 globally on available airline seat kilometers and 94 on quality of air transport infrastructure keeping costs of travel high (especially important for the tourism sector) and options limited, though this is slowly changing with the gradual opening up of the sector as Lao PDR implements its AEC commitments.

¹² Lao PDR 2015 Enterprise Survey, available at www.enterprisesurveys.org.

Access to finance

60. **Even though access to finance for firms has improved in recent years, many MSMEs struggle to obtain the finance they need to grow.** According to the 2015 Enterprise Survey, less firms in Lao PDR needed a loan compared to the EAP average, loan rejection rates were lower, though collateral requirements are higher. Still, only 12 percent of firms had a bank loan, compared to a regional average of 28 percent. Credit to the private sector reached around 55 percent of GDP by end-2015, up from 23 percent in 2009, similar to Cambodia and countries at lower-middle-income level, including some of the selected peers (Bolivia 62 percent, Nepal 69 percent). Still, firms need credit at better terms to increase investment and hence productivity and wages of workers. Also, the informal sector, which is large in Lao PDR, typically has more difficult access to finance.

61. **Banks are reluctant to lend due to information asymmetries and difficulties in executing collateral.** A large number of firms are not registered and/or do not keep accounting records and settle transactions in cash without invoices. Moreover, the reliability of the accounting records for the firms that keep records may be deemed as unreliable by banks. When MSMEs default on their loans the execution of collateral becomes a lengthy and costly process for commercial banks. In Lao PDR, the judicial system is not prepared to handle collateral execution in an expeditious manner; it takes up to five years for banks to take possession of collateral through the judicial system.

62. **While credit to the private sector is growing, it occurs with limited products and outreach.** The assets of the banking sector reached almost 100 percent of the country's GDP by mid-2016, up from 24 percent in 2005. Over the same period, the number of banks increased to around 40 compared to around a dozen in 2005. An additional 147 non-bank financial institutions (microfinance institutions, savings houses, leasing companies, and so on) were also operational in 2016. However, few commercial banks and non-bank financial institutions operate outside urban areas. Limited access to formal financial services, particularly in rural areas, remains a challenge; people lack the ability to expand their businesses by taking out loans, or depositing money safely because there are no banks within reach. The lack of access to finance in agriculture also hinders the introduction of more sustainable farming practices and technological upgrading.

63. **Loans from commercial banks are generally available to cover short-term working capital, and not to carry out long-term fixed investments.** Around 16 percent of firms use banks to finance investments, compared to 20 percent in EAP on average. This may be partly explained by the slowly growing share of longer-term deposits. Around 40 percent of deposits have a maturity of one year and above, up from only 11 percent in 2005. This limits banks' ability to provide longer-term loans and until few year ago around 90 percent of total bank lending had a maturity of less than three years.

64. **The rest of the financial sector remains underdeveloped.** The insurance market represents a fairly small proportion of financial services, while the Lao Stock Exchange (LSX) has only five listed companies. Alternative financing such as equity finance, supplier finance, and other non-banking vehicles are not yet available in the market.

65. **Risks in the sector may undermine gains.** Parts of the Lao PDR's financial system may be at risk of distress reflecting weaknesses in the management of some banks (including a few larger state-owned banks) and lax enforcement of regulations (especially on domestic banks). Non-performing loans (NPLs) were estimated at around 6 percent of total loans in mid-2014 (and as high as 8 percent in state-owned banks) increasing to above 9 percent in mid-2016 and a large foreign exchange exposure keeps credit risks high. Public sector arrears have been a key factor behind the pickup in NPLs as contractors were unable to repay loans taken to finance construction. Access to finance may reemerge as a major constraint if these risks are not addressed.



3. Inclusiveness of growth in Lao PDR

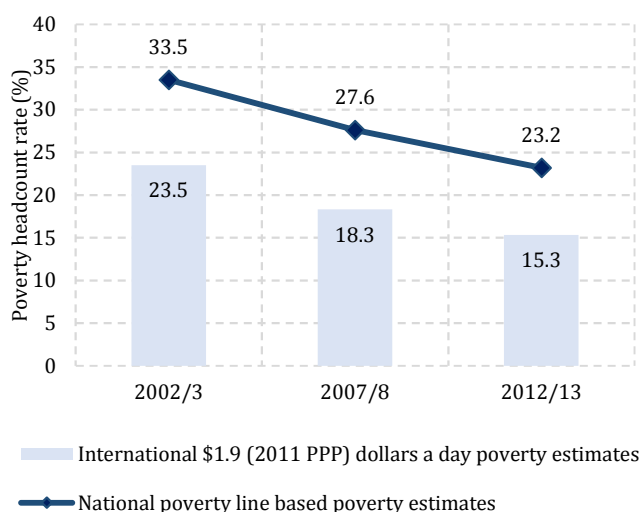
Trends in poverty and living conditions

Living standards improved, but are still low by international standards

66. Poverty in Lao PDR has declined.

The country met its MDG of halving extreme poverty to below 24 percent by 2015 and living conditions improved significantly. Estimates from the Laos Expenditure and Consumption Survey (LECS5) show that the poverty rate—based on the national poverty line—declined from 33.5 percent in 2002/03 to 23.2 percent in 2012/13. Measured using the internationally comparable poverty line of US\$1.9 per day (2011 purchasing power parity [PPP], poverty declined from 23.5 percent in 2002/03 to 15.3 percent in 2012/13 (Figure 19). Improved living standards are also mirrored in higher household ownership of assets and access to social services. Between 2002/03–2012/13, the proportion of households living in houses built with bricks or concrete increased from 14 to 41 percent, ownership of a mobile

Figure 19: Poverty trend in Lao PDR



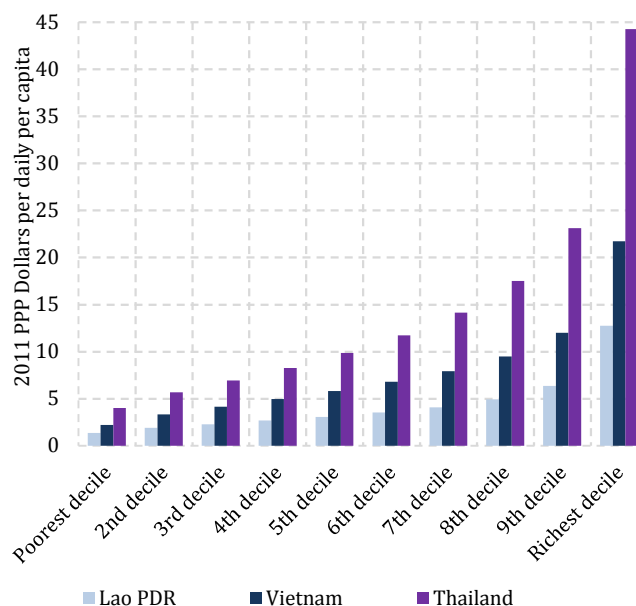
Source: LECS5.

Between 2002/03–2012/13, the proportion of households living in houses built with bricks or concrete increased from 14 to 41 percent, ownership of a mobile

phone from 3 to 76 percent, access to electricity more than doubled to almost 90 percent and access to an improved water source tripled to above 75 percent.

67. Nonetheless, consumption levels for the majority of the population are still low by international standards. Nearly 80 percent of the population lives on less than US\$5.5 a day (2011 PPP) below which households are considered to be economically insecure. In comparison, less than 40 percent of the population in Vietnam and less than 20 percent of the population in Thailand have daily per capita consumption below US\$5.5 per day (2011 PPP) (Figure 20). Even the richest 10 percent (excluding the very rich who are generally not captured in surveys) in Lao PDR on average live on less than the benchmark for the global middle class of US\$15 per day (2011 PPP). This makes the shared prosperity agenda relevant for most of the population.

Figure 20: Mean consumption by decile



Source: LECS5, Vietnam Household Living Standard Survey (VHLSS) 2012, Cambodia Socio-Economic Survey (SES) 2012.

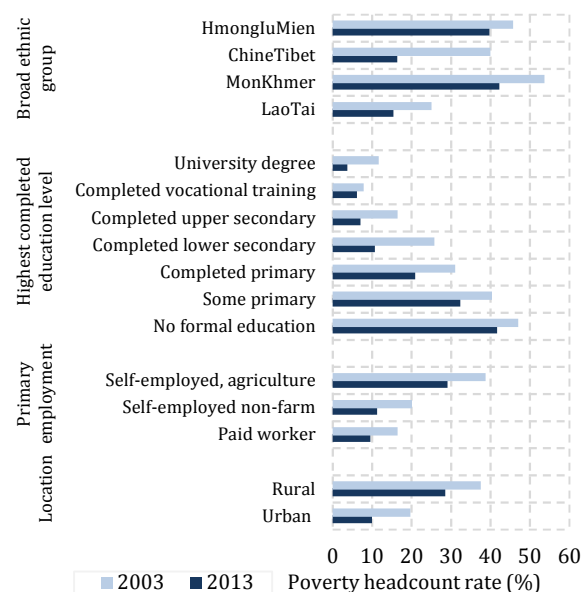
Large variations continue to exist in living conditions between regions and population subgroups

68. Aggregate improvements in welfare mask large differences between regions and socioeconomic groups. Poverty affected half of the population in Saravane and at least two in five people in Bokeo and Sekong in 2012/13, in contrast to 6 percent in the capital city. At 28.6 percent, the poverty rate in rural areas was higher than the 10 percent in urban areas with the gap widening between 2007/08 and 2012/13. Rural areas accounted for 87 percent of the poor in 2012/13, compared to 80 percent five years earlier. Poverty is concentrated in upland areas and among the less educated, and those who primarily depend on family farming (Figure 21 and Figure 22).

69. Poverty is particularly concentrated among minority (non-Lao Tai) ethnic groups. About two-thirds of the poor in Lao PDR are ethnic minorities, even though they constitute a third of the population in the country. Poverty rates are highest among the MonKmer (42 percent) and Hmong (40 percent) and nearly three times the incidence of poverty among the majority Lao Tai ethnic groups with a poverty rate of around 15 percent. The ChineTibet is the only minority ethnic group with poverty rates close (16 percent) to the Lao Tai.

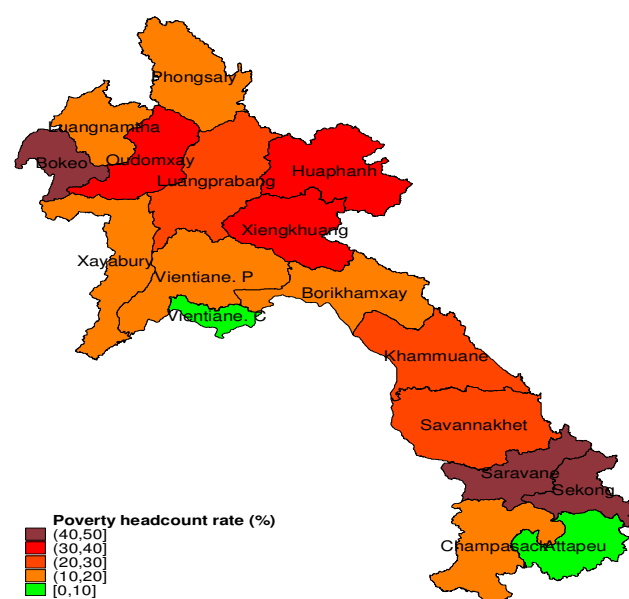
70. **In general, ethnic minorities have characteristics associated with higher poverty rates.** The majority of working-age ethnic minorities (55 percent) have incomplete primary or no formal education and 84 percent of them have at most completed primary education compared to 56 percent for the Lao Tai. Ethnic minorities primarily depend on subsistence agriculture, with 83 percent working on family farms and just 7 percent in paid wage. On the whole, less than 20 percent of ethnic minority households have a non-farm income, compared to 54 percent for Lao Tai households. Ethnic minorities are also more likely to reside in remote rural areas with poor access to services.

Figure 21: Poverty rate by socioeconomic status



Source: LECS5 and National Accounts data.

Figure 22: Poverty rate by province: 2012/13



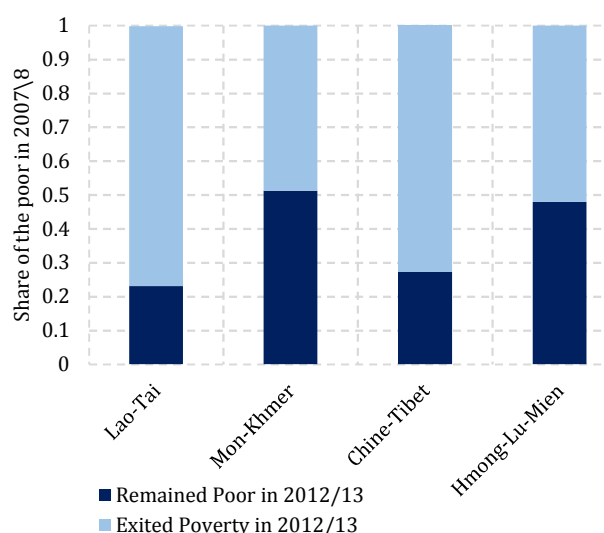
Source: Authors calculations based on LECS5.

71. **Progress in poverty reduction has been slower among minority ethnic groups, besides the ChineTibet.** Poverty reduction was particularly slower among the Hmong. Starting with a poverty rate of 46 percent in 2002/03, their incidence of poverty declined by 6 percentage points in 10 years up to 2012/13, compared to a 10 percentage point reduction in poverty among the Lao Tai from 25 percent in 2002/03. Compared to other ethnicities, upward mobility was much lower and downward mobility much higher among both the Mon-Khmer and Hmong-Lu-Mien (Figure 23 and Figure 24). For instance, half of the Hmong who were poor in 2007/08 exited poverty in 2012/13 and 30 percent of those previously non-poor had fallen back into poverty. Among the Lao Tai in contrast, three-quarters of the poor in 2007/08 had moved out of poverty five years later and less than 10 percent of the non-poor had fallen into poverty.

72. **Key gender gaps emerge on health, especially on maternal mortality and teenage pregnancy, and are gradually narrowing on education.** A high maternal mortality rate places women at a higher risk while early marriages and pregnancy raises the risks for health complications for young women (Asian Development Bank and The World

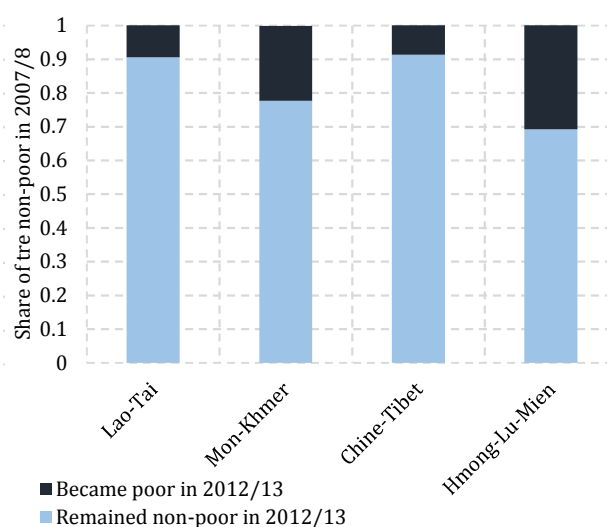
Bank, 2012). Women still have lower literacy rates, especially among the poor where the literacy gap between males and females is 23 percentage points and girls constitute the majority of those who have never been to school. Although gaps in enrollment have closed and the net enrollment of girls equaled that of boys in both primary and secondary education in 2012/13, the gap still persists in access to tertiary education. In general, the legal framework provides equal rights to men and women; however, customs and traditions, may limit implementation in some cases.

Figure 23: Transition out of poverty among the poor by ethnicity: 2007/08–2012/13



Source: Authors calculations based on LECS5.

Figure 24: Transition into poverty among the non-poor by ethnicity: 2007/08–2012/13



Source: Authors calculations based on LECS5.

Drivers of poverty reduction

An increase in endowments and creation of off-farm opportunities drove poverty reduction

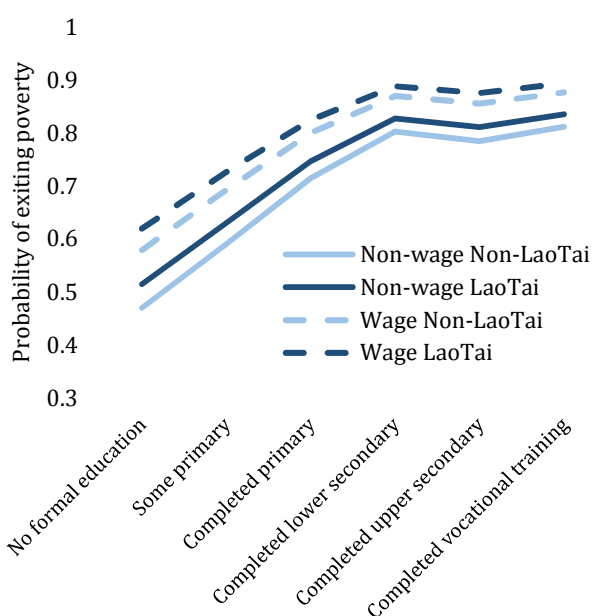
73. Household labor income growth was the major contributing factor to poverty reduction. This was driven by increasing households' endowments and economic opportunities. More specifically:

- Human capital improved - households' human capital increased as the dependency ratio (number of dependents per working adult) declined from 2.7 in 2002/03 to 1.9 in 2012/13 and educational attainment increased. The proportion of working-age adults with a secondary degree increased by 8.3 percentage points, from 26.7 percent to 35 percent over that period.
- Access to land increased - access to agriculture land in rural areas increased by 26 percent, mostly in the second half of the decade. By 2012/13, an average household had 2.9 ha of land, compared to 2.3 ha a decade before.

- Off-farm job opportunities expanded - the economy created about 400,000 jobs in the non-farm sector - enough to absorb two-thirds of the 610,000 new labor market entrants during this time, resulting in a decline in the share of agriculture in primary employment from 73 percent in 2002/03 to 64 percent in 2012/13.

74. **Higher education attainment facilitated the transition into off-farm employment where earnings are higher, but also contributed to agriculture income growth by raising agriculture productivity.** The most educated fully transitioned out of agriculture, mostly into the services sector. Those with incomplete secondary education remained engaged in agriculture but diversified into mostly informal, low-productivity household businesses which reduced underemployment. Households headed by someone with at least complete primary education were more productive in agriculture. They produced 30 percent more rice per person and 26 percent more rice per area planted while selling a greater share of their produce in the market. Consequently, households with more education were more likely to escape poverty whether in agriculture or non-agriculture sectors (Figure 26).

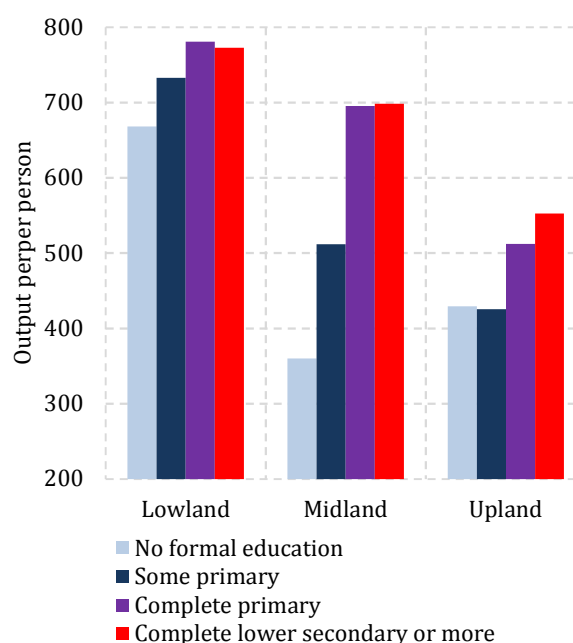
Figure 25: Probability of exiting poverty by education levels



Source: Authors calculations based on LECS5.

Note: Estimated for a household, with no household business, did not borrow for health expenditure, male-headed, in a village with road and electricity, and has average household size, dependency ratio, household head age.

Figure 26: Rice productivity by education of household head and altitude



Source: LECS5.

75. **Differences in human capital endowments and access to productive off-farm opportunities explain part but not all of the poverty disadvantage of ethnic minorities.**

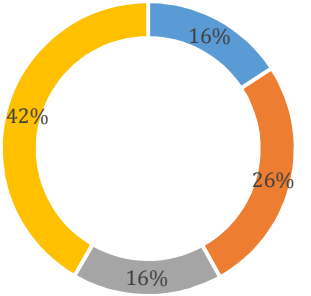
The gap in the likelihood of exiting poverty between ethnic minorities and the Lao Tai narrows when taking into account education attainment and livelihoods, although it is not completely eliminated (Figure 25). About 90 percent of the difference in consumption per capita between the Lao Tai and ethnic minorities is explained by differences in endowments (few household members with post-primary education and a higher share of children in the household among ethnic minorities) and poor connectivity (lack of access to electricity).

Taxonomy of the bottom 40 percent and constraints they face

76. The bottom 40 percent in Lao PDR can be broadly grouped into four categories with different needs or constraints and thus require different policy responses (Table 8).

- **Unconnected, low capital:** The largest group (42 percent) and the poorest, basically lacking in everything other than land. This group is predominantly ethnic minorities (71 percent) and located mainly in highland areas. Only 15 percent of people in this group have a non-farm income and the average share of working-age household members with at least secondary education is just 5 percent. This group is likely to be most vulnerable from uncontrolled exploitation of natural resources which affects their livelihoods and increases disaster risks. Non-farm opportunities are lacking in their remote locations, yet with low levels of education, people in this group are not only deprived of the prerequisite skills to transition out of agriculture, but they are also less productive within agriculture where they will remain in the foreseeable future. The lack of assets is thus a critical constraint to this group.
- **Connected, rural, moderate capital:** This group, constituting 26 percent of the bottom 40 percent, has higher asset ownership and connectivity, but has moderate to low levels of education, is largely rural, and predominantly agricultural with close to two-thirds of households being net sellers of rice. Like the case of Cambodia, this group can benefit significantly from policies that raise agriculture earnings, especially from rice production.
- **Connected, urban, good capital:** A third group (16 percent of the bottom 40 percent), is predominantly urban, with above average human capital, high connectivity, access to services and asset ownership, has already entered the non-farm sector, and is predominantly Lao Tai. The challenge for this group is making their non-farm engagement more stable and productive, as the majority of this group still has to supplement their earnings with farming.
- **Health burdened:** The last group (16 percent) is set apart from the others by exposure to health shocks. While this group shares characteristics of other groups, it is singled out as it points to significant vulnerability. At least one household member in two-thirds of households in this group was hospitalized in the 12 months before the survey in 2012/13 and a third of the households have a chronically ill member. More than half are ethnic minorities.

Table 8: Characteristics of different groups of the poor

(a) Distribution of the bottom 40 percent by grouping	(b) Characteristics of different groups of the poor (%)				
 - urban, connected, high capital - rural, connected, moderate capital - health burdened	Household characteristics	Connected, above average capital	Connected, moderate capital	Health burden	Remote, low capital
	Urban	50	17	14	3
	Highlands	10	25	30	47
	Lao Tai	93	72	48	29
	Has above 2 ha agriculture land	25	42	37	33
	Average share of adults with at least lower secondary education	42	15	13	5
	Owns a refrigerator	90	50	28	1
	Has a concrete or brick house	68	26	18	3
	Connected to electrical grid	99	97	70	56
	Has improved toilet	89	74	49	24
	Household member hospitalized in past 12 months	1	0	62	0
	Has chronically ill household member	0	0	38	0
	Has non-farm income	74	35	33	15
	Is a net rice seller	54	62	51	49

Challenges for inclusive growth

Growth in Lao PDR was not broad based and not equitably shared

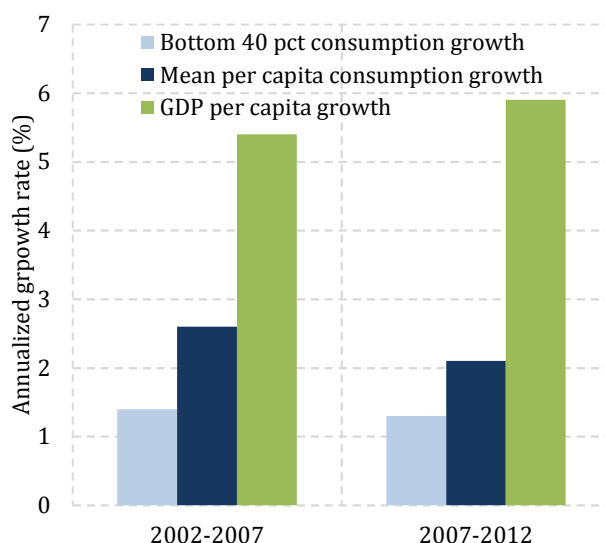
77. **Poverty has been less responsive to economic growth in Lao PDR compared to other countries in the region, as growth did not only fail to translate into a proportionate increase in household consumption on average, but was also more favorable to the non-poor.** Average consumption per capita grew by 2.2 percent per year—about 3.5 percentage points lower than GDP per capita between 2002/03 and 2012/13. At just 1.3 percent per year, consumption growth was even lower for the bottom 40 percent. Inequality increased, with the Gini coefficient increasing from 32.5 in 2002/03 to 36.2 in 2012/13, thus higher than Cambodia (28 in 2011) but in the same range as Vietnam (35.6 in 2012) and Indonesia (37.2 in 2013) and lower compared to few of the selected peers (Bolivia, Botswana, and Zambia). The low trickle down of growth and rising inequality contributed to a low growth elasticity of poverty of around -0.42 . Only the Philippines has a lower growth elasticity of poverty in the Southeast Asia region. Cambodia for example had a growth elasticity of poverty of -1.16 during 2004–2011; Vietnam and Indonesia also had higher growth elasticity of poverty compared to Lao PDR, as well as most of the selected

peers (Bolivia, Botswana, and Nepal). The median elasticity for a sample of around 34 resource-dependent countries is around -1.4 .

78. **Growth in the non-agriculture sector, largely driven by natural resources, did not result in a commensurate increase in jobs; furthermore, a greater share of the most rewarding jobs required higher levels of education, an asset many of the poor lack, thus limiting their participation in the growth process.** Value added from hydropower generation and mining accounted for 10 out of the 14 percentage points increase of the non-agriculture sectors' share of economic output, but its direct¹³ share of employment increased by less than half a percentage point (Figure 28) after creating less than 20,000 of the 400,000 non-agriculture jobs created during that time. The rest were created in services and manufacturing and were mainly captured by people with post-secondary education (Figure 29), a greater share of them coming from non-poor families.

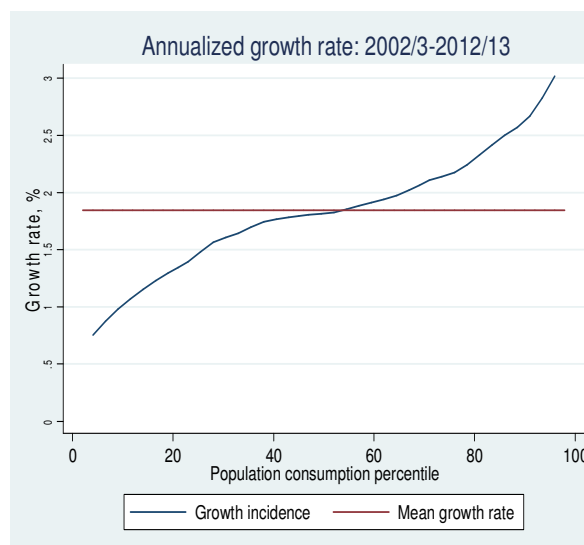
Figure 27: Consumption, especially of the poor, grew slower than GDP

Panel A: GDP per capita vs. consumption growth gap



Source: LECS5 and National Accounts data.

Panel B: Growth incidence: 2002/03–2012/13



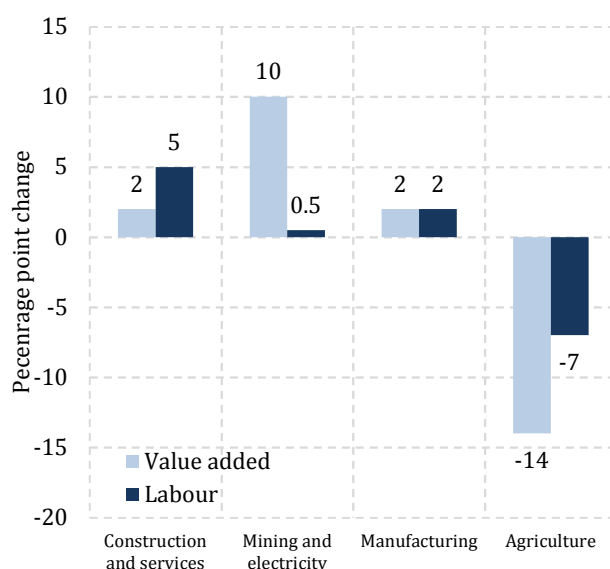
Source: Authors calculations based on LECS5.

79. **A complex interaction of concentration of growth in the resource sector, of non-farm wage jobs in urban areas, declining agriculture prices in rural areas and lower education attainment at the bottom of the distribution drove inequality.** This was characterized by a widening rural-urban gap and rising inequality in urban areas within and across provinces, reflecting differences in opportunities for different groups of people within Vientiane capital and between the capital and the rest of the country. Unfavorable agriculture prices in 2012 slowed income growth among rural households while boosting that of urban households, who also had higher household endowments and access to more rewarding economic opportunities. High returns to education explain the widening gap within urban

¹³ The natural sectors also contributed indirectly to job creation through trickling down of rents as well as through improved supply with electricity of households and businesses.

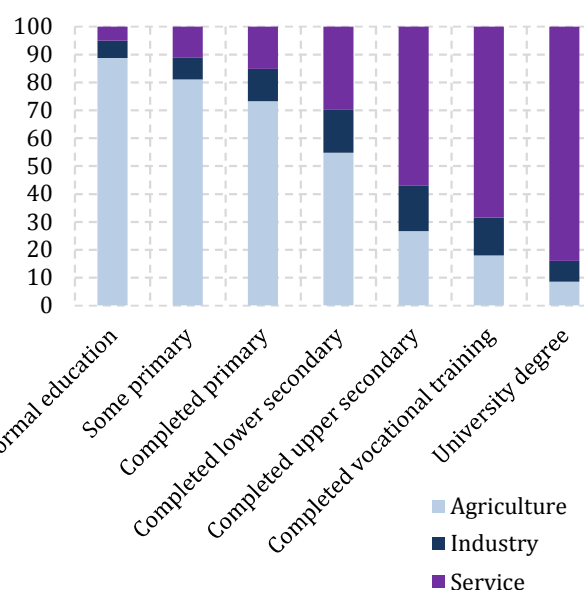
areas, as the highly skilled captured the most rewarding opportunities while the low skilled are engaged in low-productivity employment activities.

Figure 28: Changes in share of value added and employment by sector: 2002/03–2012/13



Source: LECS5 and National Accounts data.

Figure 29: Education attainment and primary employment sector: 2012/13



Source: Authors calculations based on LECS5.

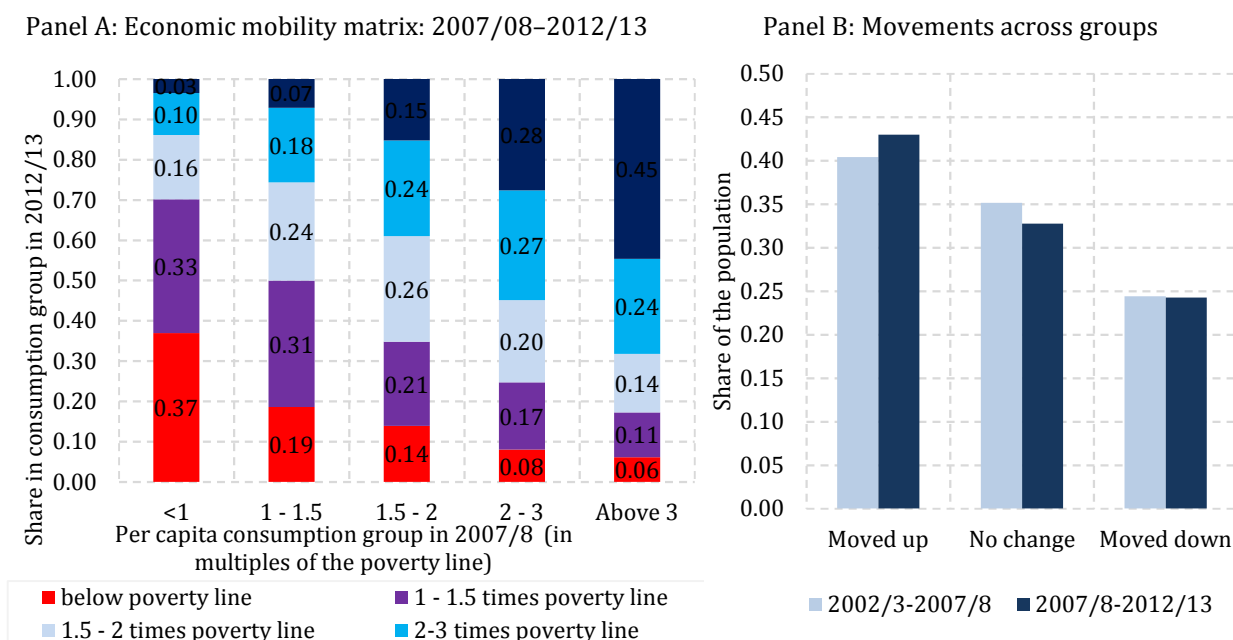
High vulnerability faced by households across the entire distribution is a drag to poverty reduction and shared prosperity

80. **Upward economic mobility is high, but so is the risk of falling back.** The high churning is reflected by the large number of people who fell back into poverty even as many others escaped, slowing the pace of poverty reduction. About 63 percent of people who were poor in 2007/8 became non-poor in 2012/13 but more than half of them moved only up to 50 percent above the poverty line (Figure 30). At the same time, half the people who were poor in 2012/13 were previously non-poor. The risk of falling into poverty is highest among those closer to the poverty line (19 percent and 14 percent of those between 1 to 1.5 and 1.5 to 2 times the poverty line, respectively, fell back into poverty in 2012/13) but this reflects high backward mobility in general. About half the people whose consumption was more than double the poverty line in 2007/08 slid to a lower consumption group in 2012/13. Vulnerability is a problem faced by households across the entire welfare distribution.

81. **Agricultural households were the most vulnerable to shocks emanating from farm produce price fluctuations, loss of land, and adverse weather conditions.** Initially, higher agriculture prices between 2002/03 and 2007/08 contributed to poverty reduction in rural areas, but declining prices in the central and south provinces in 2012 reversed some of those gains. More than half of the bottom 40 percent in Lao PDR are net sellers of rice, thus more of the poor and less well-off benefit from increases in rice prices and are hurt by lower

rice prices. Restrictions on exports of paddy as well as weaknesses in the supply chain reduce prices received by farmers as noted earlier. Climate change exacerbates weather risks and affects the majority of farmers.

Figure 30: There has been significant movement in and out of poverty



82. In general, households are poorly equipped to deal with frequent shocks and largely rely on informal social networks. In the absence of an adequate safety net, risk management rests entirely on the household, often leading to behaviors that reinforce the cycle of poverty or push families into poverty, including, reducing caloric intake, trading valuable assets, borrowing money, and unsafe migration (World Bank, 2015b). With just 12 percent of the population covered by health insurance (mostly public and private sector wage workers), health shocks and catastrophic out-of-pocket (OOP) expenditures are another risk faced by households in the country. The proportion of households incurring catastrophic health expenditures, which financially distressed households cover through borrowing, rose to 5 percent in 2012/13. The likelihood of falling into poverty in 2012/13 was 14 percentage points higher for previously non-poor households (in 2007/08) who borrowed to pay for hospitalization expenses when compared to other households with similar characteristics. High out-of-pocket expenditures are also a huge barrier to access health care (Powel-Jackson & Lindelow, 2010), further disadvantaging the poor, particularly in rural areas. About 26 percent of respondents in a recent survey (Finmark Trust, 2015) were going without medical care altogether due to unaffordability of care.

83. Low financial inclusion further lowers ability to mitigate risks. Only 20 percent of the population has borrowed, and only half of them from the formal financial sector. Less than 3 percent of the adult population is covered by life and non-life insurance companies and a pension system that is financially sustainable is not available. About 28 percent of the

adult population relies exclusively on informal mechanisms to manage risks, while an additional 26 percent do not have any financial services (formal or informal) they could use to mitigate risks (Finmark Trust, 2015). The latter experience the maximum welfare loss from any shocks which easily pushes them into poverty.

Non-monetary dimensions of welfare which drive poverty reduction in the long term are lagging

84. Human development outcomes, in general, are still lagging with gaps emerging in early life. Despite some progress against monetary poverty, gaps in other dimensions of well-being remain large and require further investment in human assets to close them. The proportion of stunted under-five-year-olds declined by only 4 percentage points over a decade, from 48 percent in 2001 to 44 percent in 2012, yet poverty declined by more than 8 percentage points over that time. Similar trends appear to have persisted since.¹⁴ *Consequently, Lao PDR did not meet the MDG on stunting even as it has already achieved the goal of halving extreme poverty.* Poverty declined fastest in Northern provinces—especially among households living close to the China-Myanmar and Vietnamese borders. The North in general still has very high prevalence of stunting and under-five mortality and has low rates of net secondary school enrollment, just like the South, and a lower proportion of fully immunized children.

85. The prevailing high rate of stunting is an epitome of slower progress in human development in Lao PDR, which puts many children at lifelong disadvantage. Child stunting is a well-established risk marker and proxy population indicator for a host of physical and environmental deprivations, namely chronic malnutrition, which impair child development. Early-life stunting is associated with poor cognitive and educational outcomes in childhood and adolescence, as well as lower wage earnings.

86. Teenage pregnancies accentuate intergenerational transmission of malnutrition. The process of brain development is most rapid during the first 1,000 days of life from conception to the child's birthday, when maternal, and later child, nutrition and health have the greatest influence upon later life outcomes. Conversely, the culture of early marriages and teenage pregnancies initiates the intergenerational transmission of malnutrition as teenage mothers are more likely to deliver underweight babies and follow traditional practices which may be counterproductive. In 2012, one in five females aged between 15 and 19 either had a child or was pregnant while 35 percent of girls aged 18 were married, compared to 9 percent in Vietnam and 18 percent in Cambodia. A profile of low education, high poverty, non-Lao Tai ethnicity and rural residence emerges. About 72 percent of teenage pregnancies is among girls with primary education or less. Teenage pregnancies are higher in rural areas (24 percent), especially remote ones. Young mothers

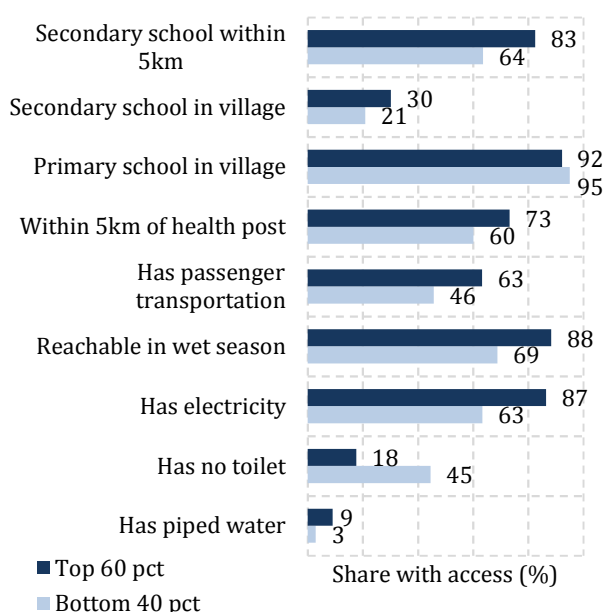
¹⁴ Two surveys which contained information on nutrition and stunting were undertaken in 2015. Both surveys show a reduction in the stunting rate; and in the case of one of the surveys a more significant reduction (United Nations Children's Fund [UNICEF] survey on Child Anthropometric Assessment Report shows a stunting rate of 25 percent). However, the surveys are not fully comparable to the Lao Social Indicator Survey (LSIS) which is the primary source of data on malnutrition. The next round of the LSIS will be undertaken in 2017.

are at greater risk of giving birth to a low birth weight baby, an indication of early growth faltering.

87. Practices around breastfeeding and feeding in early years are increasing the risk of malnutrition. Early, exclusive, and continued breastfeeding is known to reduce child risk of illness and death, as well as improve child cognition. However, in Lao PDR, only 40 percent of infants (0–5 months) are exclusively breastfed exposing them to food-borne and environmental pathogens. Gender issues related to women's education and decision making, distribution of farm- and non-farm labor, and childcare practices are associated with behaviors that impede achievement of optimal nutritional status for women, infants, and young children.

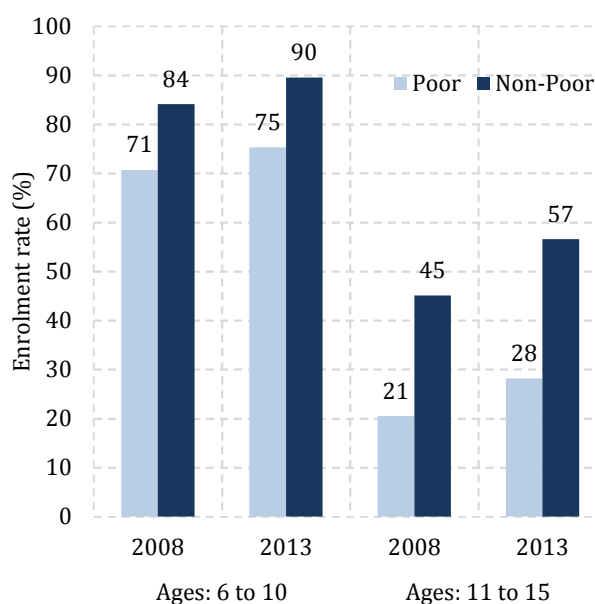
88. The origins of non-monetary poverty are traced to early life, with many Lao children entering life and continuing to primary school without receiving services and opportunities to allow them to maximize their potential. In 2011, 75 percent of women from the bottom 20 percent of the wealth distribution did not receive any antenatal care, compared to only 6.6 percent in the wealthiest. This points to considerable gaps in access to health services amongst the most vulnerable groups, and also leads to low coverage of essential nutrition interventions, such as iron supplementation during pregnancy, which can improve maternal nutritional status, as well as child health outcomes and cognition in later life. More than 75 percent of women in the poorest wealth quintile and 60 percent of women in the second-lowest did not receive any iron pills during their previous pregnancy. Facility-based delivery rates, though increasing, are low (38 percent) and differ between socioeconomic groups.

Figure 31: Access to services by welfare group



Source: LECS5.

Figure 32: Enrollment by poverty status and age group



Source: LECS5.

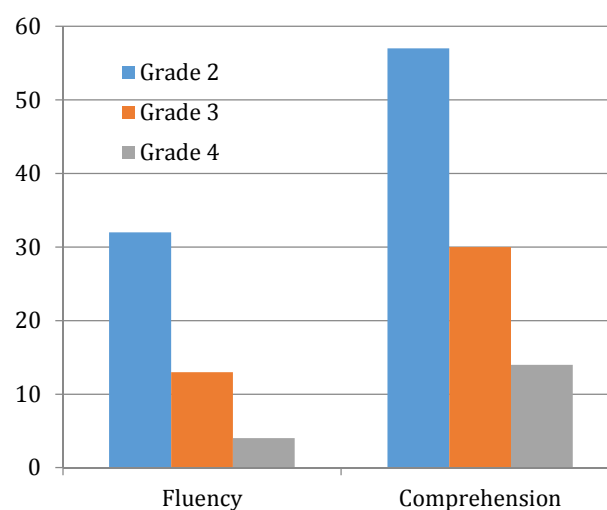
89. **Access to and the quality of other services has improved, but gaps remain which contribute to weakly improving human development indicators for the more vulnerable.** While poor diet and low diversity of complementary foods partly explain the lag between consumption-based poverty and nutrition, lack of access to improved water and sanitation along with low parental education are statistically significant determinants of stunting in Lao PDR. About 70 percent of households had access to improved toilets in 2012/13, up from 59 percent five years before. However, half of the bottom 40 percent had no toilet in 2012/13, compared to 26 percent without a toilet among the top 60 percent. Around 73 percent of children from the richest households attend early childhood education compared to only 5 percent of children in the poorest households. On the other hand, in primary education, both access to schools and enrollment rates have been equalized. Gaps open up again in secondary education. While secondary enrollment has increased overall, it remains lower among poor households, who are also more likely to be located further from secondary schools. The net secondary enrollment is almost 56 percent among the non-poor but only 28 percent among the poor (Figure 32). Transport connectivity, proximity to schools and health centers are also lower for the bottom 40 percent when compared to others (Figure 31). This lack of access partly explains those in traditionally poor regions lagging behind in human development outcomes even as they begin to make gains on monetary poverty.

Education

90. **The 2014 Lao PDR Development Report found that many workers lack foundational skills such as the ability to read, suggesting an agenda that goes beyond the poor and affects the entire country.** Without these foundational skills, people will struggle even in the most basic jobs and teaching them more skills would be very hard.

91. **Lao PDR children spend fewer years in schooling compared to peers.** The country increased net enrollment in primary education to close to 100 percent in recent years; however, dropout rates are high (only 77.5 percent of pupils starting in grade 1 reach the last—5—grade of primary) and transition to secondary education is low (only 44.7 percent of children enroll in secondary education, compared to 77.1 percent in EAP on average). In addition, there is a strong regional dimension with the survival rate to grade 5 being lowest among children living in rural areas without road access, children in the poorest quintile, and children of mothers with no education. The average year of schooling of the labor force in 2010 was

Figure 33: Learning outcomes are poor
(% of student in respective grade scoring zero)



Source: (World Bank, 2014b).

5.1 years with only 10 percent of the workforce completing upper-secondary, and 5 percent having either vocational or tertiary degrees.

92. **Education outcomes are poor.** While enrollment rates have improved, universal primary school education is still far from being attained, if measured by whether all children complete the level and end up functionally literate (United Nations Population Fund, 2015). The early grade reading assessment found that almost one-third of students in grade 2 scored zero on fluency and 57 percent scored zero on comprehension. The lack of knowledge of the Lao language among minorities is a major factor affecting their performance at school. The low enrollment in early childhood education contributes to the education challenges in Lao PDR as the best window for child brain development is missed. According to LSIS, only 23 percent of children aged 36–59 months attend organized early childhood education, with strong geographic disparities: early childhood education participation is 55 percent among urban children of the same age group, compared to 15 percent of rural children.

93. **The education sector has been underfunded until recently.** Spending on education as a percentage of GDP was only 2.9 percent in 2011/12, on par with some countries in the region (Cambodia), but low compared to lower-middle-income countries as well as most of the selected peers (Bolivia, Botswana, Nepal) and countries in the region (Vietnam, Thailand). Spending appears to have increased since to around 3.7 percent of GDP; still, most likely the increase has been taken up by higher spending on wages. Consequently, schools have limited services and low-quality facilities (almost half of the schools in Lao PDR have a roof that leaks; only slightly more than half of the schools have a water supply, only 20 percent have electricity and fewer than half of the schools have toilets). Access to more modern appliances (phones, ICT) is even more restricted (World Bank, 2012a). Low non-wage recurrent expenditures (school materials, equipment, teacher training, and so on) also means households have to pay non-mandatory fees for schooling which may affect access to education for children from poor families.

94. **Physical access to education is uneven.** Overall and given changing population dynamics; more schools are unlikely to be needed. Also, pupil-teacher ratios in primary and secondary education, at 25.6 and 17.8, respectively, are not excessive (UN Women, 2015). However, almost 57 percent of all primary schools and 70 percent of primary schools in poorest districts do not offer all five grades of primary education. Providing education services is difficult in remote areas which disproportionately affects children in the poorest areas, particularly girls and non-Lao Tai ethnic groups.

Health

95. **Health indicators are improving, but the less well-off are benefiting less.** Life expectancy has been increasing and reached 68 years in 2014. Under-five mortality rates have been reduced to below 70 per 1,000 live births and the maternal mortality ratio is estimated to have fallen from 796 per 100,000 live births in 1995 to 220 in 2014. Household air pollution, largely due to the use of solid fuels for cooking, is declining, but still among the largest contributors to premature death and disability, disproportionately affecting the poor. According to (Finmark Trust, 2015), 79 percent of the population did not feel in good

health. The health network claims to cover 93 percent of the population at an average walk of 90 minutes to a health facility. For slightly more than half of the population, the nearest hospital was within 10 km while 85 percent of households had a health center within the same distance. There are, however, major differences across geographical and social factors. Inequities are greatest in rural areas, where households in the highest-income quintile have an in-patient admission rate of 42.4 per 1,000 population, nearly three times the rate of 15.9 for households in the lowest-income quintile. Similarly, only one-quarter of the poor live in villages with a medical practitioner compared to one-half of the non-poor.

96. Insufficient public health sector inputs keeps private spending high and makes health shocks a major determinant of poverty. With around 2.17 health workers per 1,000 population, Lao PDR's health system is classified as facing a critical shortage of staff (WHO and Ministry of Health, Lao PDR, 2012). Furthermore, with the government spending less than 2 percent of GDP on health, the reliance on private spending and official development assistance (ODA) is high. Government spending on health increased to around US\$30 per capita in recent years, above levels seen in Myanmar, but below the selected and regional peers (Bolivia, Botswana, Nepal, Vietnam) as well as the average for lower-middle-income countries of around US\$90 per person in 2014. OOP payments account for around 40 percent of total health expenditure and, as noted earlier, prevent many households (26 percent) from seeking healthcare services and often lead to catastrophic health expenditures. Critical preventive programs (immunization, family planning, maternal care, HIV/AIDS) are largely reliant on assistance from development partners and may come at risk as the country's income level increases. Health financing programs such as Health Equity Funds (HEFs) and the Free Maternal and Child Health program remain fragmented. Institutional arrangements are weak, and reliance on external technical assistance remains high, creating further challenges to the country's readiness to witness an impending donor transition.

97. Quality of services is poor. Minimum requirement quality standards have been prescribed; however, it is unclear if these adequately measure quality of services and are enforced. The physical infrastructure is largely amortized and availability of modern technology is limited; the only magnetic resonance imaging (MRI) scanner in the country opened in 2015 while smaller hospitals and health centers lack basic medical equipment for simple diagnostics and treatment. Service quality is criticized, and there is dissatisfaction with the attitudes and practices of public sector health-care providers, complex service procedures and long waiting times (The Lao People's Democratic Republic health system review, 2014). Corruption is allegedly widespread. Perceived poor responsiveness of services results in low demand for services and utilization rates, and use of services across the border.

Access to basic utilities (electrification, rural roads, water supply, and sanitation)

98. Access to water supply and sanitation is improving; however, gaps remain and disproportionately affect the poor. Economic losses due to poor sanitation were estimated at US\$193 million per year in 2006 (equivalent to 5.6 percent of GDP at the time), mostly from the estimated 3 million diseases and 6,000 premature deaths annually and the

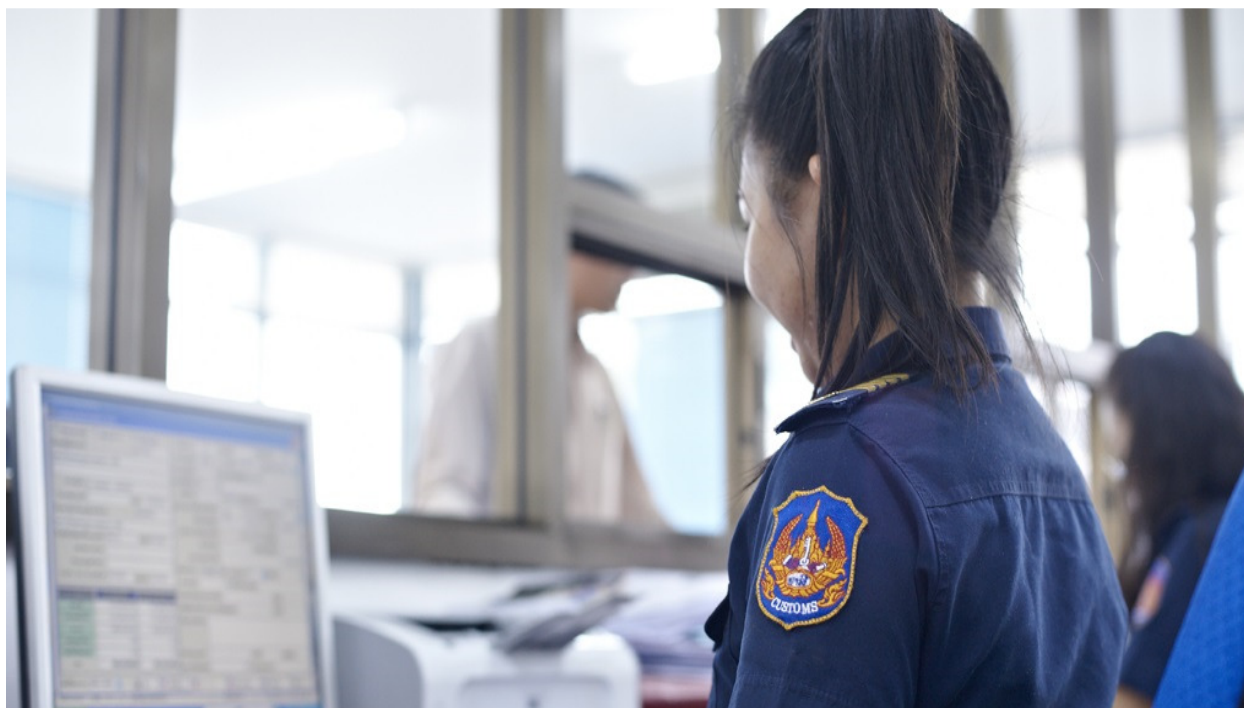
economic costs of water pollution (World Bank Water and Sanitation Program, 2009). According to the World Health Organization (WHO)/UNICEF Joint Monitoring Programme, 71 percent of households had access to improved sanitation, above the MDG target of 65 percent. However, in rural areas, where the majority of the poor live, access remained at only 56 percent. While coverage with improved access was almost universal for the households belonging to the highest quintile, the figure was only 13 percent for the poorest quintile (World Bank, 2015). Without full access to improved sanitation, open defecation is widespread and increases health risks, including for infectious diseases, one the major causes of malnutrition. Access to improved water supply is higher (76 percent) with lower inequities across urban and rural communities, though significant part is with questionable sustainability and safety.

99. The length of the road network has increased by around 50 percent over the last decade; however, some areas, mostly rural, still remain disconnected, either during the wet season or throughout the year. Two-thirds of villages were connected with an all season road according to the 2011 Agriculture Census, leaving a quarter of villages with road access only during the dry season road and 9 percent having no road access. According to the 2015 Census, 7.9 percent of the population lived in villages without roads, compared to 21 percent a decade earlier. Still, almost 50 percent of the rural roads were classified as being in bad and failed condition. The poor state of roads is also a growing cause of mortality and serious injury. Road traffic injuries are the ninth leading cause of death and the second fastest growing, costing the country an estimated 2.7 percent of GDP in 2010 according to the WHO.

100. The electrification program in Lao PDR, which is one of most successful such programs in the region, is entering the final stage, as the rate of electrification approaches 90 percent of households. However, according to the 2015 Census, 15 percent of the population lived in villages without electricity. Furthermore, only 58 percent of the bottom 40 percent were connected to electricity in 2012/13, compared to 87 percent among the top 60 percent.

101. If not managed, the ongoing urbanization can lead to grouping of people and accumulation of assets in hazardous places and unsafe structures. While urban population is still around one-third of the population, the urban population has been growing fast and its contribution in consumption is already above 50 percent. However, urbanization appears to be taking place in an unplanned and disorganized pattern due to lack of resources, inadequate legal framework, and weak planning and implementation capacity. With increases in population and the number of vehicles, the traffic conditions in Vientiane are deteriorating. The city is starting to experience congestion and related problems of accidents and deteriorating air quality. Missing links in the road network, poor maintenance of water supply infrastructure, flooding and clogged drains, and disposal of untreated waste constrain the productive capacity of urban areas, making them less competitive and livable (Asian Development Bank, 2010). Cities are also unprepared to manage disaster risks, lacking both engineered (such as dikes, canals, or ecosystem-based systems) as well as non-engineered (such as early warning, drills, and emergency planning) measures.

102. **Progress continues to be made on dealing with UXOs; however, these still affect a big part of the country.** Since 1996, 55,000 ha have been cleared of UXOs, a fraction of the 8.7 million ha (36 percent of the total territory) estimated to have been contaminated, due to capacity and funding constraints. Still, the number of casualties has been declining (from 3,000 in 2008 to 45 in 2014) as the authorities introduced a more result-based methodology (The Lao People's Democratic Republic, 2015).



4. Can the current model be sustained?

Despite strong headline GDP growth and some poverty reduction, a wide range of risks put into question the robustness of Lao PDR's development path. Growing public debt burden, systemic risks in the financial sector as well as low buffers may test macroeconomic stability which can ignite inflation, lower living standards, and hurt public services delivery. Continued environmental degradation will hurt livelihoods and undermine growth prospects; and together with climate change will increase the already high risks from natural disasters. If any of these risks materialize, the poor are likely to be most affected as they have the least options to mitigate risks.

Elevated macroeconomic risks

103. **Lao PDR has been running a large investment-savings imbalance over the last decade reflecting supply- and demand-side choices and policies.** Growth prospects in mining, hydropower, and more recently real estate development attracted strong investment. Furthermore, public capital spending increased in an effort to address the country's infrastructure gap. At the same time, accommodative macroeconomic policies, a possibly overvalued exchange rate, and financial sector deepening added to robust domestic demand which in an environment of uncompetitive domestic production lowered domestic savings. Strong FDI inflows financed a large part of the current account deficit and together with robust growth resulted in total external debt declining from 122 percent of GDP in 2003 to 76 percent by 2011. However, a rapid debt-financed widening of the current account deficit since 2011 increased total external debt to 98 percent of GDP by 2016, a level much

higher compared to regional and selected peers as well as the average for lower-middle-income countries.

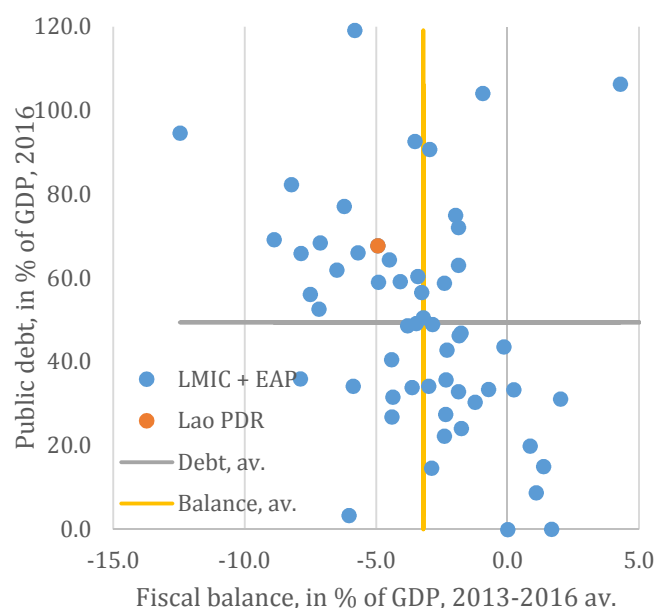
104. The management of fiscal accounts has been erratic, with periods of large imbalances triggering consolidation efforts.

The fiscal deficit between 2000 and 2015 averaged 3.5 percent of GDP compared to 1.3 percent of GDP in developing Asia and 0.4 percent of GDP in a sample of 49 resource-rich countries. Lao PDR started the 2000s with high deficit levels and saw the deficit decline in the second half of the decade. Strong GDP growth, favorable debt terms, as well as an appreciating exchange rate resulted in public debt declining from around 110 percent of GDP in 2001 to below 57 percent of GDP in 2011 and as a result the risk of debt distress was lowered from high to moderate. However, the fiscal imbalance widened again earlier this decade triggering efforts to contain the deficit; however, with limited success. The

fiscal deficit averaged around 5 percent of GDP between 2013 and 2016 and could be as high as 6.2 percent of GDP in 2016. This, together with significant amounts of debt-financed public spending outside of the budget pushed public debt to an estimated 68 percent of GDP by end-2016 (compared to 38 percent of GDP for emerging and developing Asia and 43 percent of GDP for the sample of 49 resource-rich countries), elevating the risk of debt distress to high. Going forward, financing needs will significantly grow and average around 21 percent of total revenues during 2016–2020, up from 10 percent of revenues in recent years, as increasing amounts of borrowing, including some on non-concessional terms, start to mature. This will divert resources from other priority areas. Already in 2016, interest expenditures are expected to be around 1.5 percent of GDP, exceeding the budgetary allocation for the agriculture sector and slightly below the budgetary allocation to the health sector. Furthermore, failure to adjust the fiscal balance going forward, cost overruns on large infrastructure projects that are borne by Lao PDR, as well as larger exchange rate disturbances would mean that debt servicing could easily become unsustainable.

105. Fiscal pressures stem from a narrow tax base and the inability to collect a fair share of revenues from natural resource use. Lao PDR fiscal revenues reached around 23 percent of GDP in FY14/15, a strong improvement from around 15 percent of GDP in the middle of the last decade. However, excluding revenues from natural resources and grants, domestic collection effort is limited which became visible in this year as revenues slumped

Figure 34: High deficits keep the debt level elevated



Source: International Monetary Fund (IMF) World Economic Outlook database.

to 19 percent of GDP. This puts Lao PDR around the average for ASEAN countries and peers such as Cambodia and Nepal, but below the average for lower-middle-income countries (24.7 percent of GDP on average during 2013–2016) and resource-rich peers such as Botswana and Bolivia (even after removing resource revenues). Weaknesses in tax policy and administration result in the tax burden disproportionately affecting the relatively small formal sector of the economy. Tax rates, in general, are not excessive compared internationally, with most rates in ranges similar to countries in the region. The ‘total’ tax rate is estimated at around 26.2 percent of profits, below 33.9 percent in EAP on average and 38.3 in lower-middle-income countries on average, similar to Botswana but higher compared to Cambodia (21 percent) and Zambia (18.6 percent).¹⁵ However, the existence of ‘presumptive taxation’ (where a lump-sum payment based on turnover is made in lieu of all tax obligation) for small companies together with a weak capacity to assess turnover results in significant under-declaration of revenues and a leakage of government revenues and is an incentive for firms to stay small and informal. In addition, tax exemptions are widely used to attract investment, and are often poorly targeted, discretionary, and generous. In addition, the contribution of the natural resources to fiscal revenues has been less than commensurate (Box 5), reflecting significant unrecorded mining and logging activity but also low royalty rates on some power projects. This may partly reflect the nature of the hydro sector development in Lao PDR, mostly with private sector financing and at market terms; however, even some projects in Lao PDR undertaken with private sector involvement (including more recently negotiated agreements) do suggest that higher royalty rates are possible. Importantly, strengthened macroeconomic management will lower country risk and the financing costs of hydro projects in Lao PDR, allowing projects to remain viable even with higher royalty rates.

106. Efforts to address the large infrastructure gap and inefficient spending are adding to fiscal stress. Since the mid-2000s, government expenditures increased by above 10 percentage points of GDP to reach 29 percent of GDP in 2013, before falling to 27 percent of GDP in 2015 and further to an estimated 25.2 percent of GDP in 2016. This puts Lao PDR’s expenditures considerably above the ASEAN average as well as peers like Cambodia and Nepal and slightly below the average for low-income countries. The increase reflects both higher recurrent spending (wage increases as well as additional hiring) as well as a large capital spending. With revenues falling below targets, arrears emerged forcing the government to introduce a wage-freeze, lower recruitment, and restrict capital spending to projects approved by the National Assembly. However, arrears continue to linger on, with arrears at the Ministry of Public Works and Transport estimated at around US\$1.4 billion, or around 11 percent of GDP. This is affecting the liquidity and profitability of suppliers as well as the health of the financial sector as contractors on public projects are unable to regularly service their obligations to banks. In addition, the quality of public services could be affected as unpaid civil servants reduce work efforts as they pursue other activities to compensate for the reduced monetary inflows. Despite the difficult fiscal situation, the authorities have proposed a number of big infrastructure projects, including the Lao PDR section of the

¹⁵ Doing Business 2017.

proposed Kunming-Singapore rail line¹⁶ which will keep the deficit and public debt levels elevated and requiring careful management.

Box 5: Fiscal impact of natural resources use

Despite increasing output, the contribution of resource revenues to the budget has been limited. Total natural resource rents between 2000 and 2011 were 9.6 percent of GDP, compared to 14 percent of GDP in Vietnam or 12.5 percent in Indonesia (World Bank, 2014g). Still, this places Lao PDR above the Kyrgyz Republic and Tajikistan (both landlocked with significant hydropower and mining potential) as well as Cambodia and Thailand. Revenue collection from hydropower and mining increased from about 2.7 percent of GDP in FY06/07 to about 4.3 percent in FY11/12 as commodity prices peaked during 2011–2012. Mining revenue is, in general, more volatile as it depends on the ore resource availability and commodity prices. Lower copper and gold prices as well as depletion at the main mines lowered fiscal revenues from mining to about 1.6 percent of GDP (US\$195 million) in FY14/15. Also, most of the revenues come from the two large mines, which face a relatively high effective tax rates compared internationally. Hydropower revenue on the other hand, tends to be more stable due to predetermined prices and power output. Still, so far, the sector's contribution to fiscal revenues has been relatively small (up to US\$130 million, or 1.1 percent of GDP, in FY14/15) but is expected to gradually increase to around US\$300 million by 2025 and faster afterwards once major power projects start operation, tax exemptions expire, and assets are transferred to Lao PDR ownership. Tax revenues from timber have considerably lagged behind the increase in timber exports. Internal World Bank estimates put the foregone fiscal revenues at around US\$100–120 million, or 1 percent of GDP, in 2014 given exports of US\$1.6 billion; however, this may have declined more recently as royalty collection improved in 2015, while exports decreased.

107. Despite a surge in expenditures, some sectors remain underfunded and delivery and quality of essential services suffers. Government spending reached US\$3.4 billion in 2016, a 70 percent increase in five years. The increase in spending has been directed towards transport and energy, as well as sectors such as education (2.9 percent of GDP in FY11/12, though this was planned to increase to 3.7 percent of GDP in FY15/16), health (0.7 percent of GDP in FY11/12, planned to increase to 1.9 percent of GDP in FY15/16), agriculture, and so on. Despite envisaged increases in the budget allocations for education and health, non-wage non-capital spending remains low (for example, around 11 percent of the total education budget). Lack of functional classification of budget expenditures prevents a more detailed analysis of sectoral budget allocations. At the same time, poor public investment management and weaknesses in public procurement put in question the value for money of government spending. A 2011 IMF evaluation of public investment management practices in 71 countries ranked Lao PDR 64 with especially weak selection and evaluation processes (International Monetary Fund, 2011). Furthermore, many projects were undertaken outside of the formal budget approval process. A review of 23 such 'pre-financed' projects in the road sector (projects financed by a private contractor with an agreement for later repayment by the Government) found that the cost per kilometer

¹⁶ The project has been estimated at US\$6.7 billion, out of which 40 percent will be provided by a joint venture company formed between Lao PDR and China. Lao PDR will need to contribute with 30 percent in the capital of this company (or around US\$700 million). Around US\$480 million will be borrowed from China in annual installments over the medium term while the rest will be allocated from the budget. The joint venture company will need to secure the remaining 60 percent of the project costs. Lao PDR Ministry of Finance (MOF) has noted that no sovereign guarantee will be provided. According to the 2012 Feasibility, the internal rate of return (IRR) is 4.56 percent and the repayment period of investment is 23 years.

is 2–3 times higher compared to projects based on national standards, that the design resulted in over-capacity and that undertaken liabilities exceeded significantly the capital budgets in the surveyed provinces.

Table 9: Revenues growing, but barely keeping pace with expenditures

(revenues and expenditures in respective fiscal year)

	11/ 12	12/ 13	13/ 14	14/ 15	15/ 16		11/ 12	12/ 13	13/ 14	14/ 15	15/ 16
	in US\$, million						as % of GDP				
Revenues	2,175	2,469	2,798	2,806	2,496		23.9	23.0	24.1	23.0	19.0
Non-resource rev.	1,184	1,467	1,803	1,916	1,909		13.0	13.7	15.5	15.7	14.5
Taxes	1,043	1,291	1,525	1,671	1,699		11.5	12.0	13.1	13.7	12.9
Non-taxes	141	176	278	245	210		1.5	1.6	2.4	2.0	1.6
Resource revenues	387	396	345	329	280		4.3	3.7	3.0	2.7	2.1
Taxes	338	316	291	264	221		3.7	2.9	2.5	2.2	1.7
Non-taxes	49	80	54	64	59		0.5	0.7	0.5	0.5	0.4
Grants	605	607	650	561	307		6.6	5.7	5.6	4.6	2.3
Expenditures	2,296	3,119	3,250	3,256	3,314		25.2	29.1	28.0	26.6	25.2
Current	1,001	1,751	1,713	1,839	2,033		11.0	16.3	14.7	15.0	15.5
Salaries	445	1,126	1,086	1,061	1,101		4.9	10.5	9.3	8.7	8.4
Capital	1,221	1,304	1,213	1,196	1,060		13.4	12.2	10.4	9.8	8.1
Foreign-financed	848	829	773	776	656		9.3	7.7	6.7	6.3	5.0
Domestic-financed	373	475	440	420	404		4.1	4.4	3.8	3.4	3.1
Other, incl. arrears	75	63	324	221	220		0.8	0.6	2.8	1.8	1.7
Expenditures in selected sectors			Est.	Plan	Plan				Est.	Plan	Plan
Agriculture	99	197	109	117	89		1.1	1.8	0.9	1.0	0.7
Health	63	144	223	230	234		0.7	1.3	1.9	1.9	1.8
Education	261	412	501	454	462		2.9	3.8	4.3	3.7	3.5
Public works	500	372	369	380	452		5.5	3.5	3.2	3.1	3.4
Deficit	-122	-649	-452	-450	-817		-1.3	-6.0	-3.9	-3.7	-6.2
Public Debt	5,604	6,707	7,541	8,042	8,962		61.6	62.5	64.9	65.8	68.2

Source: World Bank staff calculations based on data from the MOF.

108. Lao PDR's monetary and exchange rate policies have had competing, and at times conflicting objectives. In addition to price stability, monetary policy has focused on increasing availability of credit as well as supporting budget execution. Monetary conditions were loose for most of the last decade, including through negative real policy interest rate, though falling inflation reversed this in recent years (the effectiveness of the interest rate channel in Lao PDR is unclear). Also, direct lending by the Bank of Lao PDR (BOL) as well as issuance of debt have added to domestic demand and complicated the goal of preserving the stability of the exchange rate, and contributed to keeping foreign exchange reserves at very low levels compared to internationally accepted benchmarks. Reserves, at around US\$940

million in September 2016, covered only around a quarter of foreign currency deposits in the banking sector and around two months of imports. Backed by BOL interventions, the official exchange rate of the kip against the U.S. dollar remained stable in recent years and resulted in appreciation of the kip's real effective exchange rate, with the appreciation over the last five years reaching around 30 percent. The continued real appreciation of the exchange rate signals a loss of competitiveness of Lao PDR's exports; though wage and unit labor costs indicators remain below what is expected at the country's income level. Furthermore, the credibility of the de facto pegged exchange rate in an environment of low reserves has been tested in recent months as reported shortages of foreign exchange resulted in a 5 percent gap opening up between the official and curb markets and added to the difficulties of doing business.

109. The opening up of the banking sector resulted in significant deepening. By mid-2016, Lao PDR had around 40 commercial banks compared to around a dozen in 2005 while an additional 95 microfinance institutions were also licensed in 2016. As a result, the size of the banking sector increased rapidly and credit to the private sector reached around 55 percent of GDP by 2015, up from the low base of 10 percent of GDP a decade earlier. This was accompanied with strong deposit growth, keeping the loan-deposit ratio below one. However, more recent credit growth appears to be also fueled by rapid growth in foreign liabilities of the banking sector which reached around 20 percent of GDP by mid-2016 (up from 9 percent of GDP at the end of 2012). In addition, almost half of the deposits are in foreign currency, a high level given the limited foreign reserves cover.

110. With weak regulatory and supervisory capacity and only limited commercial orientation of state-owned banks, the system is exposed to risks. While the concentration has been decreasing, the four state-owned commercial banks still account for 46 percent of all assets (56 percent in 2012), 59 percent of all deposits (64 percent in 2012), and 47 percent of all loans (65 percent in 2012). A number of private banks, mostly foreign owned, have been expanding their market share in recent years. Officially, NPLs were estimated at 3.2 percent; however, BOL regulations that put a cap on NPLs at 3 percent could be creating incentives for commercial banks to understate NPLs. State-owned banks appear to be particularly vulnerable with high NPLs (8.2 percent in mid-2014) and minimal capital adequacy (2.9 percent in mid-2014). Parts of the banking sector (incorporated as branches) are supervised by regulators with sound capacity (for example, from Malaysia or Thailand); however, risks could be higher in domestic banks and some regional banks coming from jurisdictions with weaker standards. Limited data availability prevents a more detailed analysis, but lack of transparency is fueling concerns. Asked about the soundness of the banks, executives in Lao PDR companies gave an average score of 4.5 (on a scale of 1–7) in 2015–2016, down from 4.8 two years before.¹⁷ If unresolved, these issues may threaten fiscal solvency, financial sector stability, and macroeconomic stability and undermine trust in the system. At the same time, healthy (mostly smaller) banks remain conservative.

¹⁷ World Economic Forum Global Competitiveness Report 2013–14 and 2015–16.

Significant disaster risks and the impact of climate change, exacerbated by rapid exploitation of natural resources is affecting the environment and livelihoods

111. Disasters risks are significant, with a disproportionate impact over the poor. Most frequent disasters are floods and storms and, to a lesser degree, droughts which keep the large share of the population engaged in farming or fishing vulnerable. Environmental degradation and unplanned urbanization are adding to disaster risks. The poor routinely bear the brunt since their homes are fragile and often in low-lying environments and disasters cause largest losses to their sources of livelihoods. While Lao PDR's exposure risk is lower compared to countries in the region, weak economic and social conditions, including low capacity for disaster risk management (DRM), is keeping vulnerability high (United Nations University - EHS, 2016). This reflects significant underfunding of DRM activities, lack of a comprehensive investment strategy and nascent and evolving institutional structure. Currently, the Government uses different reserve funds and contingent budget allocations, which have proven to be insufficient to cover even recurrent disaster losses. As a result, the Government, households, and businesses absorb most of the disaster risk for damage to their assets. Disasters-related emergency costs account for around 30 percent of road budget annually. Historical damage data indicate that annual expected losses range between 3.3 percent and 4.1 percent of GDP with the associated average annual fiscal cost equaling approximately 2.3 percent of government expenditures. Among the ASEAN countries, Lao PDR faces the highest 100-year probable maximum loss relative to GDP with estimated losses as high as 13.9 percent of GDP. Also, around 188,000 rural households (46 percent of rural population) are estimated to be at risk of food insecurity caused by drought.

112. Climate change is adding to the vulnerability by changing weather patterns and resulting in more frequent and severe extreme events. Already, rainfall has become more volatile and temperatures have been increasing by around 0.1°C per decade since the second half of the last century.¹⁸ Projections include further increases in temperature and increased intensity and frequency of extreme events, including higher rainfall and flooding risks during wet season—which will affect agricultural lands along the Mekong River and tributaries—and longer dry seasons accompanied by more severe water shortage. If unprepared, these changes will put into question any gains in other areas. While the costliest disaster still remains a 1993 storm, three of the five costliest events have taken place since 2009, including two floods in a single year 2013.¹⁹ The 2015–2016 El Niño has been one of the strongest and has affected Lao PDR through lower yields, reduced hydropower production, and damages from storms. Climate change will also affect the existing network of dams and their power generation capacity, whose minimum annual value of hydroelectric production at risk was estimated to be about US\$283 million (USAID, 2014).

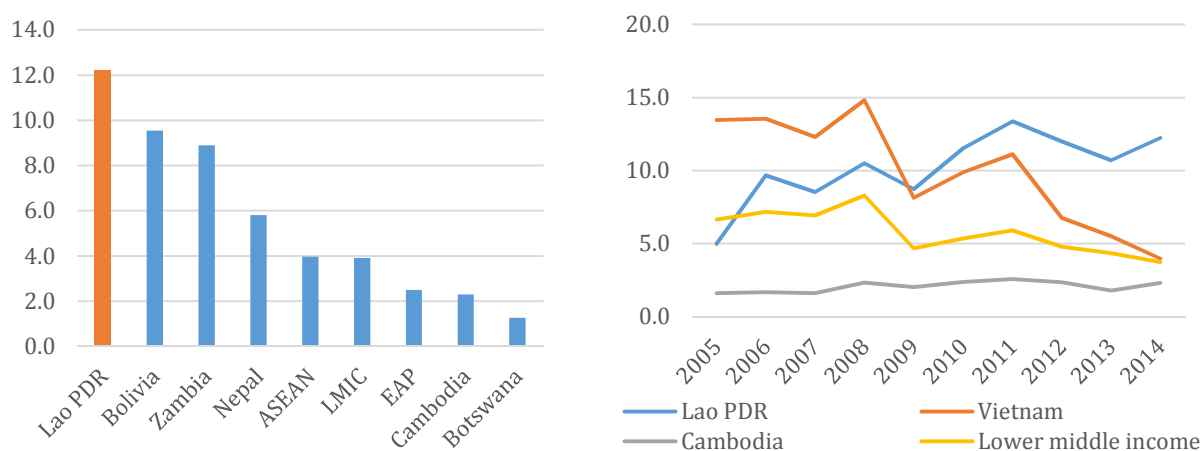
¹⁸ Data from World Bank Climate Change Portal.

¹⁹ Center for Research on the Epidemiology of Disasters – The International Disaster Database; available at: <http://www.emdat.be>.

113. Lao PDR's natural resources—minerals, forests, water resources,²⁰ and biodiversity²¹—have been intensively exploited, further increasing risks. At 12.2 percent of GNI in 2014, the rate of natural resource depletion in Lao PDR is significantly above the rate in lower-middle-income countries and most regional and structural peers (Vietnam, Cambodia, Nepal, Botswana). The cost of environment degradation was estimated at above 7 percent of GDP in 2013 with forest depletion, pollution, and greenhouse gas emissions contributing most. Lao PDR moved from being a sink of greenhouse gases in 1990 to a net (though small) emitter of greenhouse gases by 2000, due largely to land-use change and depletion of forests. In mining, hydropower, and agriculture plantation projects, concession agreements are frequently signed before the Environmental Impact Assessment (EIA) is approved, jeopardizing the enforcement of the EIA conditions as part of the concession implementation. Poor coordination among different government agencies leads to the concession of the same area to more than one project. Deforestation rates, until recently, were estimated to be above 1 percent per year. This is affecting forest-dependent households, leading to soil erosion and accelerated sedimentation of hydropower reservoirs, exacerbating weather-related risks, affecting wildlife populations and undermining the future growth of sectors like tourism and clean agriculture.

Figure 35: Natural resources are being depleted

(natural resource depletion, in % of GNI)



Source: World Development Indicators.

114. The decline in the extent and quality of natural forest ecosystems also signals threats to biodiversity. The deteriorating forest cover threatens biodiversity, but so do subsistence hunting and passive government response to wildlife trafficking and protected area degradation. Lao PDR is a wildlife trafficking hub with trade routes to Vietnam and

²⁰ Construction of hydropower plants can lead to deforestation and ensuing soil erosion. By changing the water regime in the river they are on, hydropower plants can also significantly impact fisheries, biodiversity, and downstream agriculture.

²¹ Biodiversity: Up to 8 percent of the national protected area system is under hydropower or mining concessions, and wildlife trafficking is an ongoing phenomenon. Capacity and political willingness to control wildlife trafficking is severely limited.

China; though traders and consumers increasingly operate within Lao PDR. In response, the authorities established the Lao Wildlife Enforcement Network and the Prime Minister issued a notice to enforce the Convention on International Trade in Endangered Species (CITES). Discussions have started on biodiversity offsets and reforming national protected area management.

115. This is particularly important for Lao PDR where poverty and environment are closely intertwined. A significant part of the population, especially the rural poor, depend on natural resources for their livelihoods. Although data are inconsistent and incomplete it is clear that forest resources provide an important range of products to consumers. For forest-dependent households, forestry and agricultural activities are believed to contribute between 30 to 70 percent to income. Inland fish and other aquatic animals provide nearly half of all animal protein consumed by people, and 70 percent of rural households fish at least part-time. In 2015, as many as 31 percent of rural households relied on unimproved and open unprotected surface water.



5. Toward ending extreme poverty and promoting shared prosperity

Pathways for strong, inclusive, and sustainable growth

116. **Lao PDR has ambitious goals for the next decade.** It aims to grow at 7.5 percent per year, reduce poverty, and ensure the sustainable use of its natural resources. While the goals are ambitious, Lao PDR's assets and its location in the dynamic Southeast Asia region make this development path possible.

117. **With its abundance of natural resources and relatively low endowments of other assets, Lao PDR's growth prospects in the near future will be closely linked to the resource sectors.** It would be important to make growth more inclusive compared to the recent history, and a recent World Bank report on development in resource-rich countries provides important lessons on how countries like Lao PDR can ensure that natural resources contribute to making progress toward the twin goals. It concludes that countries should not aim to diversify their production structures. Australia, Canada, and Chile are examples of high-income countries where natural resource and resource-intensive goods still account for a high share of exports. Malaysia and Costa Rica are examples of countries that are on the verge of becoming high-income countries. Instead, countries should aim to diversify their assets, that is, achieve a better balance between natural resources, physical and human capital, and institutions. The experience of these countries underscores the importance of (a) advancing integration, including by using the natural resources; (b) getting a fair share of resource rents; and (c) converting these into human and physical assets to gradually open up opportunities outside of the resource sectors and 'diversify naturally'. While economic activity may, over the medium term, become more concentrated, good jobs will still be created, including in services, a more productive agriculture and niche manufacturing sectors. The framework also argues for strengthening key economic institutions early in the development process (see Annex 2 for application to Malaysia).

118. Being a small, landlocked country, Lao PDR's growth prospects depend on closer integration. Prosperous economies succeeded by integrating and did that with the assets they were abundant with. Lao PDR is not an exception. It has been increasingly integrating, largely on the back of its natural resources, and there is still untapped potential. A well-functioning regional power market will provide opportunities for Lao PDR to reap the benefits from its power sector potential (Box 6). Also, being next door to China, the global leader in outbound tourism, and a growing environmentally conscious middle class in the region is improving the prospects of higher-value-added, nature-based, and labor-intensive sectors, such as ecotourism and organic agriculture. Costa Rica provides a good example of the opportunities available from nature-based tourism and the required policies (Annex 4). A regional labor market can provide jobs for Lao workers but also meet the skills shortages in the Lao economy. Over time, as human and physical capital levels improve, the areas in which Lao PDR would be able to effectively participate in regional economic flows will grow. The efforts under the AEC and Regional Comprehensive Economic Partnership (RCEP) frameworks will provide opportunities for further integration as Lao PDR implements the commitments it undertakes.

119. Building on this framework as well as the experience of Lao PDR and peer countries, this Systematic Country Diagnostic (SCD) suggests that to ensure strong, sustainable, and inclusive growth, Lao PDR will need to make progress on three pathways and one cross-cutting theme. Pathway 1 focuses on sustainably and efficiently managing the country's natural resources. This is critical to deliver strong growth as well as to secure resources needed to build Lao PDR endowments of human and physical assets. Pathway 2 focuses on boosting agriculture and improving the environment for the private sector to increase farmers' incomes and create non-farm jobs. It draws on the experience of Lao PDR and peer countries in reducing poverty and providing opportunities to people. Finally, Pathway 3 emphasizes improvements in human capital required to increase the ability of people to grab those opportunities as well as measures to address the high vulnerability. Strengthening institutions and governance is a critical cross-cutting challenge that affects progress in each of the three areas above. The proposed pathways can be easily mapped to the three main outcomes of the 8th NSEDP.

120. Importantly, Lao PDR's growth pattern needs to become greener and more resilient. *First*, Lao PDR's growth produced a large environmental footprint. With the cost of environment degradation estimated at above 7 percent of GDP in 2013, the losses could be irreversible and will stall the main engine of growth if not addressed. *Second*, Lao PDR is currently rapidly accumulating physical capital (roads, bridges, dams, buildings) that should serve the country over many years. If these investments fail to take into account the impact of climate change or adequately deal with emerging challenges (including urbanization, migration, pollution), the economy could be locked into options which may appear cost-effective in the short term but have significant negative implications over the long term. Admittedly, moving to a greener and more resilient growth model will have short-term costs, but ones that are rapidly declining with the advance of technology and that will be dwarfed by the long-term costs of inaction. Even if the cost is a slight reduction in the growth rate, the remaining growth will be of higher quality and more inclusive and sustainable.

Table 10: Mapping the objectives of the SCD and the 8th NSEDP

8th NSEDP	Systematic Country Diagnostic
Priority cross-cutting output (1 of 3): Enhance effectiveness of public governance and administration	Cross-cutting theme: Strengthening institutions
Outcome: Sustainable management of natural resources and reduced impact of natural shocks and climate change	Pathway: Sustainable and efficient management of natural resources
Outcome: Strong economic growth and lower vulnerability	Pathway: Unlocking the potential in non-resource sectors to create opportunities
Outcome: Enhanced human development, poverty reduction, and access to quality education and health services	Pathway: Building the assets of people to be able to take on these opportunities and to mitigate risks and protect gains

Box 6: Regional power market

Lao PDR's installed capacity in the energy sector already exceeds domestic demand by four times and excess capacity will further increase by 2020. While there is no shortage of demand for electricity in the region, the national system needs to be strengthened and the physical and institutional infrastructure for regional power trade and system-to-system exchange is yet to be formed. Domestically, the completion of the 500 KV transmission backbone scheduled for 2018–2019 should help in fully integrating the power system. Internationally, Lao PDR has developed strong bilateral power trade with Thailand and is exploring options for connections with Myanmar and Vietnam. Also, it is exploring electricity wheeling with Thailand and Malaysia for possible exports to Singapore.

A stronger push for a regional power market in the Greater Mekong Subregion (GMS) will open more opportunities, increase energy security, lower capital and system operating costs, and reduce emissions in the entire region. The Regional Power Trade Coordination Committee was established back in 2002 and a Master Plan was developed; however, implementation has been slow (for example, a Regional Power Coordination Center is yet to be formed). In addition, it will require (a) harmonization of national policies and regulatory frameworks and (b) improved system planning and real-time management capabilities to avoid cross-border blackouts. Importantly, transparent and stable governance and regulatory frameworks are essential to attract public and private investors needed to cover the large financing needs in the sector.

Cross-cutting theme: Strengthening institutions

121. Strengthened institutions will be critical for realizing opportunities through each of the three pathways. This is especially so in resource-based economies where natural resources create rents that make the institutions more vulnerable to capture as windfall revenue from natural resources may help reinforce vested interests in inefficient political institutions (World Bank, 2014g). The experience of developed, resource-rich countries suggests that the institutions that matter most are those which (a) ensure stable public finances and dampen volatility; (b) increase accountability of service providers; and (c) ensure a level-playing field and promote competition. Importantly, most developed, resource-rich countries were able to set up these institutions before significant resource rents were created. Here, Lao PDR's track record is mixed. Macroeconomic management has been erratic; accountability arrangements are weak; and despite efforts for liberalization in

goods markets, competitive pressures are weak while the regulatory framework is discriminately enforced.

Pathway 1: Sustainable and efficient management of natural resources

122. Natural resources have delivered growth and the remaining potential is significant. Sustainably managed, the country's rich water, forest, and subsoil resources can continue to support growth. Lack of an integrated approach in management of natural resources has resulted in suboptimal and non-transparent allocation and use of the country's natural resources, in many cases favoring short-term gains while affecting livelihoods and undermining future growth prospects. Weak regulations and poor enforcement at the sector level further undermine the prospects for sustainable and shared growth.

123. Importantly, decisions on the use of natural resources should consider that conservation of natural resources is sometimes a more efficient alternative to extraction. For example, if institutions to manage natural resources, collect revenues, and redistribute are weak, it is probably better to leave resources unexploited. Conservation offers two important opportunities:

- It can reduce economic losses and present opportunities to nurture higher tiers of economic activities with reduced environmental impact. For example, reducing deforestation and forest degradation will increase the useful life of hydropower plants by reducing reservoir sedimentation. Nature-based tourism, with adequate measures to minimize pollution and negative impact on ecosystems, can generate diverse service sector jobs. Also, agricultural products that meet global food safety standards and are environmentally friendly, including but not limited to organic products, can fetch higher prices. While the expansion of these sectors will require reforms in other areas (connectivity, standards), the prospects critically depend on maintaining healthy ecosystems. This will be impossible under a scenario of uncontrolled expansion of mining, power plants, and logging. Conservation will also allow Lao PDR access to global climate finance.
- It will allow the authorities an opportunity to develop the institutions necessary to manage large resource rents. In this context, the relatively long period before Lao PDR starts to receive more significant benefits from its hydro potential may be positive, as the Government will have few options but to institute mechanisms for collecting taxes, to effectively regulate the business environment, and to improve governance. This appears to have been, at least partly, behind Lao PDR's decision to introduce a moratorium on new mining and plantation concessions and ban timber exports; however, weak implementation limited its benefits.

Pathway 2: Unlocking the potential in non-resource sectors to create opportunities

124. Ending extreme poverty and promoting shared prosperity will require an accelerated structural transformation, including a more productive agriculture and a vibrant private sector. The country has a young demographic profile and relatively low

wages and productivity, making the EAP experience in increasing productivity and incomes in agriculture and developing a labor-intensive and outward-oriented manufacturing sector relevant. Increasing productivity of agriculture will increase income of farmers, create jobs in agribusiness and agro-processing, reduce stress on the environment, and enhance nutritional outcomes. However, income-generating opportunities in agriculture remain constrained by a still dominant focus on rice self-sufficiency, limited access to extension services, difficulties in reaching markets and making connections with agribusinesses, as well as market distortions.

125. As productivity growth reduces the labor requirement in agriculture, non-farm rural jobs (such as tourism, handicrafts, décor, and artisanal goods) and manufacturing and services can provide opportunities. The fast-growing region and increasing wages in the region make Lao PDR an interesting candidate for firms to diversify production structures. Affordable, and relatively soon abundant, electricity and easy access to the Thai infrastructure are likely to be a comparative advantage, especially as growing integration through the AEC and RCEP²² further opens up opportunities. Attracting FDI would be an important element of a job-creating, private sector-led growth strategy as FDI brings in know-how, capital, and access to markets. However, creating good jobs is constrained by a difficult and selectively enforced regulatory framework, which breeds informality and corruption, as well as inadequate labor skills. While the likelihood of a large-scale, export-led industrialization seen in other EAP countries taking place in Lao PDR may be more limited, even for standards of resource-rich countries, Lao PDR has room to increase manufacturing (for example, in resource-rich Eurasia manufacturing accounts for 14 percent of GDP, compared to 8 percent in Lao PDR). Also, significant opportunities in the services sector remain unexploited. In general, a focus on niche segments (for example, nature-based tourism, fair trade and organic agriculture, and so on) is likely to have the largest development impact.

Pathway 3: Building the assets of people to be able to take on these opportunities and to mitigate risks and protect gain

126. More human capital and assets open up opportunities for transition into better-paid jobs—be it domestically or through migration—and also improve the prospects for those that remain in agriculture. Human development outcomes remain poor despite strong growth and the indicators are persistently worse for ethnic minorities who make up a disproportionate share of the poor. The most vulnerable have very few assets, are geographically isolated (mostly highlands), and face language and cultural barriers. The critical constraints they face to build household assets, improve access to markets, and create economic opportunities include the prevalence of malnutrition and teenage pregnancies, poor education outcomes, and uneven access to basic infrastructure and services. Social norms and traditions in parts of Lao PDR society also significantly affect demand for critical interventions (maternal and child health [MCH] care, nutrition,

²² Proposed Free Trade Agreement between ASEAN members, Australia, China, India, Japan, the Republic of Korea, and New Zealand.

education). The constraints can be traced partly to insufficient funding of key sectors, but also to weak management, especially in areas that require multisectoral collaboration.

127. **High household vulnerability has been a drag to shared prosperity.** This is due to a growing exposure to shocks as well as limited opportunities to mitigate risks. The social safety net is weak and fragmented, the DRM function is underfunded and poorly coordinated, while the financial sector still excludes a big part of the population.

Table 11: Summary of constraints

Pathway	Key constraints
<i>Ensuring natural resources continue to deliver growth ...</i>	
... through sustainable and efficient management	• Lack of integrated approach in management of natural resources • Inefficient enforcement of legislation • Poor regulatory framework for mining • Inefficient collection of resources • Lack of a regional power market
<i>Unlocking the potential in non-resource sectors ...</i>	
... by improving agriculture productivity ...	• Excessive focus on rice self-sufficiency • Improving, but still limited connectivity to markets • Insufficient and inadequate irrigation and drainage • Limited access to quality seeds and inputs and extension services • Inability to meet quality requirements and weak links with agribusinesses • Market distortions
... and through creating more off-farm job opportunities	• Informality • Complicated trade and business procedures • Inefficient, in many cases discriminatory, enforcement of the regulatory framework • Strong links between state officials and commercial entities • Regulatory regimes that inhibit competition • Inadequately educated workforce • Difficulties in electricity supply • Improving, but still limited connectivity • Low value for money on public sector investments • Public sector arrears affecting businesses' profitability • Inefficient financial system • Pressures on the exchange rate
<i>Building people's assets to allow them to take on the opportunities and reduce vulnerability ...</i>	
... by improving the quality of the labor force ...	• High rates of malnutrition • Inadequate funding and management in key social sectors • Uneven access to basic utilities • Wage arrears undermining civil servants' efforts • Vulnerability to price shocks • Weak education outcomes • Insufficient demand for services
... and lowering vulnerabilities	• Limited availability of social programs, with weak targeting • Poor coverage with health insurance • Low levels of financial inclusion • Underdeveloped DRM

A prioritized agenda

128. **Lao PDR is an LDC, and unsurprisingly, faces many constraints in the achievement of the twin goals.** However, not all constraints and challenges are equally urgent and have the same impact on poverty reduction and promoting shared prosperity. Also, unlocking the potential in a number of areas would depend on some other challenges being addressed first or simultaneously.

129. **The rest of the SCD prioritizes the proposed policy areas to help Lao PDR make progress toward the twin goals of ending extreme poverty and boosting shared prosperity.** The priorities are closely linked to the proposed pathways and reflect the constraints identified earlier. The prioritization was largely guided by the expected impact of the identified policies over the twin goals, defined to also include sustainability. In the Lao PDR context, a focus on the impact over the twin goals meant prioritizing policy areas that increase incomes in agriculture, create and facilitate transition to good non-farm opportunities, and lower risks to sustainability of growth. These are the areas that contributed mostly to poverty reduction in the past and in which there is still significant potential. Greater weight was given to policy areas that address constraints for lagging groups (such as ethnic groups) and address gender gaps. Furthermore, the SCD prioritizes actions that require immediate attention, either because they address a pressing challenge (malnutrition, teenage pregnancies, and rapid depletion of natural resources) or the long period it takes to yield results calls for early intervention (skills and improved governance). This prioritization was complemented by the outcomes of an extensive engagement process with a broad range of stakeholders, including representatives of central and local governments, the business sector, nonprofit organizations, and development partners (Box 7) where the need to improve the productivity of the agriculture sector, build skills, focus on inclusion, and protect the environment came out strongly. Finally, specific policy actions are proposed under each priority area that will facilitate the achievement of objectives.

Box 7: Lao PDR SCD public engagement

The SCD benefitted from extensive nationwide public engagement that took place between February and March 2016. The objective was to solicit stakeholders' views on the development priorities, challenges, and opportunities of Lao PDR. The engagement included eight face-to-face events in four locations (Vientiane, Luang Prabang, Oudomxay, and Pakse) and an online survey; 368 persons (290 men and 78 women) representing state and provincial governments, the National Assembly, mass organizations, private sector, development partners, nonprofit organizations, and think-thanks took part in the process.

There was consensus that Lao PDR's growth has been strong, but less inclusive and at a significant cost to the environment. Several themes and recommendations were proposed to share benefits more broadly and to strengthen sustainability, including the need to improve agriculture and rural development, strengthen education and skills, and put focus on inclusion. Similarly, there was agreement on the need to protect the environment and natural resources; streamline the business environment; and improve infrastructure availability. The public engagement clearly identified the weak performance of institutions and governance and difficulties with public finances and high public debt as critical constraints. At the same time, the country's location, the energy sector, higher-value-added agriculture (organic production), and tourism were identified as growth drivers.

Table 12: Prioritized agenda for strong, inclusive, and sustainable growth

TOP PRIORITIES	HIGH PRIORITIES	MEDIUM PRIORITIES
Promoting strategic use of natural resources and responsible management of the environment	Making it easier to do business and create good jobs	Putting in place a strengthened DRM
Increasing agricultural productivity to support incomes	Investing in infrastructure for growth and inclusion	Introducing a basic social protection system to lower vulnerability
Investing in improving nutrition to achieve children's full potential	Improving access to and quality of health services for more productive people	Improving inclusiveness of the financial sector to improve access to credit and lower risks
Improving quality of education and keeping girls in school		
Putting public debt on a sustainable path and strengthening financial sector stability		
Enhancing governance and creating a rules-based environment		

130. The prioritization takes into consideration the complementarities, synergies, and trade-offs between the identified priorities. For example, improved productivity in agriculture will help in reducing stress on natural resources by reducing the demand for agriculture land as well as in reducing malnutrition. Improved nutrition outcomes provide an illustrative example of the required synergies as addressing stunting will require simultaneous progress on a few priority areas. Similarly, some reforms could be necessary prerequisites to unlock potential in other areas (for example, the Lao PDR experience shows that improved rural connectivity, without improving assets of households, is unlikely to deliver more opportunities for households). Furthermore, the proposed actions will require additional spending in a number of sectors, a clear trade-off with the objective of consolidating the fiscal position. Similarly, natural resources are subject to competing demands that need to be managed.

131. Policies and interventions to address the identified constraints should be driven by the insight that, over the long term, migration will likely be a pathway to economic integration for a big part of the population, especially in more remote areas. Local economies are unlikely to be able to provide the scale of economic activity necessary to sustain a larger improvement in living conditions for everyone while the cost of providing services across the entire country would be prohibitively high. While *respecting the right of people to live where they want*, measures to remove the impediments to integration and transition, such as improving language skills, making registration easier, facilitating job search, and improving access to services in new locations, can help.

Overarching priority: Enhancing institutional quality and creating a rules-based environment

132. **Stronger institutions can ensure faster progress toward the twin goals.** While the relationship between institutions and development appears to be weaker at lower levels of development (Shikha & Zhuang, 2014), it increases as economies and societies become more complex. This is even more important for resource-rich countries like Lao PDR with ample evidence that concentration of economic activity in sectors such as natural resources tends to strengthen the importance of improved governance. Also, some of the key constraints to the growth of non-resource sectors as well as to sharing of the benefits from growth are closely linked to the functioning of institutions. Strengthening prospects for macroeconomic stability, effectively managing natural resources, improving stunting and human development outcomes, delivering growth-enhancing infrastructure and regulatory reforms, will all require an effective public sector that has the capabilities to mobilize domestic resources, design sound policies, and ensure fair and transparent enforcement. While priority-specific issues are addressed in the specific sections further, a few issues have cross-cutting implications. Transforming state and market relations as well as strengthening accountability will be critical to creating opportunities for the private sector, improving public service delivery, and lowering economic risks. In addition to these fundamental issues, improved procedures in the administration can help in strengthening government effectiveness. Progress along these lines can ensure that Lao PDR is a rules-based economy rather than one where a privileged few benefit and the majority is excluded.

133. **Transforming the relationship between the state and the markets can help boost private sector participation.** Close links between government officials and business entities as well as unclear separation between ownership and regulatory functions raise questions about the functioning of markets and competitive pressures. Stronger arrangements for avoiding conflicts of interest, clear delineation between sector regulators and businesses, and more empowered and independent regulators (for example in the banking sector, insurance, telecom, and so on) can help in reducing the commercialization of the state.

134. **Furthermore, assigning and protecting property and creditor rights can support growth and inclusion.** A comprehensive land administration system, including effective implementation of regulations on expropriation and compensation, can help clearly assign and protect property rights. This will stimulate investments, allow the private sector to grow, and improve access to finance, and with land being one of the few assets that poor people have, this is likely to have a significant impact for the bottom 40 percent. A stronger judiciary will be needed to guarantee property and creditor rights.

135. **Stronger institutions with oversight mandates can help increase accountability.** While some important steps have been taken, more can be done. The National Assembly is increasingly playing a stronger oversight role; however, it is yet to turn down a government proposal. The Supreme Audit Organization is quickly upgrading its capacities; still, resources will be insufficient for a few more years. Providing an opportunity to appeal Government decisions, strengthening the role of the judiciary, and improving its capacity can help.

136. Reforms in the central-local government relations can improve effectiveness. Initially, existing arrangements should be clarified. At Lao PDR's current stage of development, there are benefits from having a strong central government, especially in planning and financing public functions. This can ensure equity and economies of scale. While delivery of some public services is more efficient at lower levels, decisions to delegate tasks should be complemented with clear financing arrangements and stronger accountability. Lao PDR, through the 'Sam Sang' initiative, has made a strategic commitment for increased decentralization. It would be important that the process is gradually rolled out and adjusted to reflect the results of the piloting exercises.

137. Similarly, stronger capacity at the highest level will facilitate consensus on setting priorities, coordinating policies, and ensuring effective monitoring and implementation. Government endorsement is required in Lao PDR to advance reforms; however, a stronger central function can benefit from increased expertise at the Prime Minister's Office and stronger mechanisms for cooperation with line agencies on setting sector priorities, policy impact assessment, and implementing agreed decisions.

138. A more merit-based civil service can make the best use of Lao PDR's slowly increasing pool of technically competent administrative personnel. It will be important that these staff get adequate opportunities and over time take leadership of the reform processes. In the interim, effective use of the available support from development partners in designing policies that are tailored to Lao PDR circumstances can fill the vacuum.

139. Policies need to be increasingly informed by evidence. This will require stronger systems to collect and analyze data and information. For example, improved registration and certification of births, deaths, marriages, and divorces will allow to better match supply of services to demand. Next, administrative and survey-based systems need to be strengthened and increasingly used in the design of policies. This could include the use of information from an improved Education Management Information System to approve new positions in the education sector and use of data from the LECS to design a mechanism to identify and target the vulnerable.

140. Partnership with stakeholders can improve the design of public services. Examples include community-driven development approaches or increased consultations with the private sector in drafting legislations. Lao PDR has some positive experiences in this area, mostly at the local level (for example, the Poverty Reduction Fund), that could be scaled up. Also, recently adopted regulations include commitments for greater openness and consultations. Implementing the publication and consultation requirements of the Law on Law Making (all draft laws should be posted for public consultations) should be a priority. More broadly, a greater push toward more transparency will provide information to measure the authorities' performance and to guard against possible misuse of powers.

141. More inclusive institutions will also strengthen social cohesion. Increasing penetration of modern communications and gradually improving assets is exposing the Lao PDR population, especially its younger and urban cohort, to more information and greater

awareness about opportunities in other countries. This will increase their demands from the authorities, including on greater government responsiveness on policies that affect them.

142. Modern technologies provide an opportunity to deliver public services more efficiently. Implementation of a comprehensive e-government strategy can bring transparency to workflows and budgets and improve quality, timeliness, and reach of administrative services. For example, innovative initiatives are being considered to improve delivery of maternal health services. The current ad hoc approach to e-government is resulting in missed opportunities and inefficient public investments in silo IT systems.

Promoting strategic use of natural resources and responsible management of the environment

143. Natural resources can continue to drive growth, if properly managed. Even under conservative assumptions, the hydropower potential is around three times above current installed capacity levels while limited geological exploration and low exploitation costs in existing project suggest that future growth in mining is possible. However, extracting resources entails decisions on the possible alternative uses of the country's resources. With the Government's efforts to green the economy as part of the 8th NSEDP, sectors like tourism and organic agriculture could be providing alternative and financially attractive options. At the same time, urgent attention is needed as forest and biodiversity degradation and deforestation is rapid; mining is developing below potential and with often unmitigated impact while power sector plans may not leave enough options for more efficient use of water.

144. An emphasis on green growth in the 8th NSEDP confirms ownership of the agenda. An immediate follow-up priority is to further the understanding of what environmentally sustainable growth will look like in Lao PDR through the development of a Strategy on Green and Resilient Growth. An important part of this agenda would be the establishment of clear and transparent rules and enforcement mechanisms that will guide decisions on the allocation and use of the country's national resources. Lao PDR has already piloted the use of Integrated Spatial Planning (ISP) (Box 8). Scaling it up and associating it to a Strategic Environment Assessment process could help reconcile competing objectives. The authorities' target of restoration of forest cover to 70 percent and sector strategies (for example, power and mining) that envisage expansion is one example of such competing objectives. While establishing a functioning ISP may require a longer period of time, in the near term land-use maps can be consolidated and used in procedures for land allocation. Transparency in decision making and provincial and stakeholder buy-in will also be key to planning across the landscape. Integration of EIA conditions in concession agreements and their enhanced monitoring and enforcement during concession implementation can reduce the negative environmental and social impacts of concessions. In addition, to minimize impact over the environment, stricter standards and strengthened monitoring and enforcement against air, soil, and water pollution from industrial sources, households, and vehicles will be needed. A few sector-specific policy actions also require urgent attention, as detailed below.

Water

145. An integrated approach to water management, taking into account the multiple uses of water, will secure a sustainable hydropower sector and ensure attention to the range of economic, social, and environmental demands on water. Coupled with economic and population growth and the effects of climate change, the challenge of managing for all water uses will require a more integrated and rigorous approach, engaging multiple stakeholders and ministries. Strengthening these linkages is a key component of the recently approved *Policy on Sustainable Hydropower Development* and the pending *Water Law*. Also, the Mekong River basin, which provides most of the potential for Lao PDR, is shared by five other countries—China, Myanmar, Thailand, Cambodia, and Vietnam—and is considered a transboundary resource. Effective regional water resource management arrangements can facilitate equitable and sustainable development. These issues could be addressed through the development of a transparent national hydropower plan that will integrate river basin planning into cascade management and optimize multiple, including regional, objectives. Such an approach will provide more careful project selection process and identify operating rules that avoid conflict between facilities and across water users. While it may moderate the pace of hydropower expansion, it will still allow for sizeable expansion of the sector and better match the growth in installed capacity with improvements in the backbone infrastructure, domestic demand, and expansion of export markets, with more balanced management of water for industry, livelihoods, and the environment.

Forests, wildlife, and natural protected areas

146. Reversing the process of deforestation and forest degradation is a priority. A rigorous rollout of ISP may help integrate forest planning with decisions in other sectors (agriculture, mining, and power) as well as implications over watersheds (in terms of erosion, sediment loads, and so on). Activities harming forests beyond agreements coming from the ISP process should be stopped. This would include stronger oversight over salvage logging (greater transparency of contracts, enforcement, and monitoring); implementing the ban on illegal timber trade as envisaged in the Prime Minister Order No.15; establishing a modern protected area management system; combating poaching and wildlife trafficking; and preventing illegal mining and other activities. Rehabilitating degraded forests can improve habitats for biodiversity while plantations can supply the timber industry and timber trade.

Box 8: Integrated Spatial Planning

ISP is a blueprint for sustainable environmental, social, and economic development established by the Environment Management Law in 2012. At provincial or district level, ISP is based on a common overarching vision and development strategy for the province/district. The vision and development strategy is formed through a process of analyzing the potentials, needs, and problems in each area and for every sector and interest. It is a participatory process that unifies national and provincial priorities with potentials, needs, and problems on the ground at the provincial/district level. An ISP contains a Provincial/District Spatial Development Strategy with implementing measures, which can be in the form of regulations, zoning, incentives, constructions, and projects designed specifically to promote the desired development and/or to avoid and move away from undesired development.

The central part of an ISP is a set of thematic planning maps on which the spatial development strategy and the implementing measures are visualized. The planning maps will show protected areas; sensitive and valuable natural and cultural assets; land-use zoning for industry, agriculture, residential, forestry, and infrastructure development projects; and any other development that is preferred/not preferred or allowed/not allowed. The result of the ISP is a report and maps that identify (a) the existing use of land areas, (b) possible use of land areas, and (c) existing or future land conflicts.

The 2012 revision of the law also introduced the Strategic Environment Assessment (SEA) as a process that is to be conducted when developing policies, strategic plans, and programs—for anticipating their impact on social and natural environment and for determining the means to avoid or mitigate those impacts. The SEA is an equivalent for policies and plans, to what the EIA and the Environmental Social Management and Monitoring Plan (ESMMP) are for investment projects.

147. In parallel, the capacity to manage state forests should be strengthened. The current classification of state forests into production, conservation, and protection forests is based on data from the early 2000s. Using recent data and local knowledge, the state forests are being delineated to remove encroached village and degraded land. This should be accompanied by strengthened institutional capacity, more human and financial resources, and clearer division of responsibilities. Until recently, forest management was fragmented, both horizontally (different ministries in charge of different type of forests) and vertically (from central to province and district with unclear devolution or accountability). While evidence points to the benefits from community participation in forest management, few support decentralized administrative management. In fact, there is evidence in favor of central-level management of conservation, such as the national park model.

148. Given the high value of Lao PDR's timber products, securing the buy-in for sustainable forest management will be a challenge. Some countries (Costa Rica, China) have introduced payment for environmental services (PES) to incentivize villagers to preserve assets. Alternative economic opportunities that have a lower impact over forests and have higher returns, such as nature-based tourism and clean agriculture, could help. Still, it is unlikely that these will be able to match the large amounts of funds involved in the unofficial timber trade. Commitment at the top levels of government will be critical, combined with a well-funded law enforcement function that can work without restraint.

149. Preserving forests and biodiversity would probably result in scaling back of the timber industry, at least its reliance on natural forests in exchange for certified

sustainable tree plantations. Going forward, the industry should operate under much stronger standards on third-party-certified timber, such as the Forest Stewardship Council (FSC) or the Programme for the Endorsement of Certification (PEFC). While this will require resources, significant amounts of external support are available in case there is demand.

Extractives industries

150. Reforming the mining sector can contribute to its development in a socially responsible and environmentally sustainable manner. First, the development of a mining strategy, aligned with the national development plan and sectoral plans (agriculture, forestry, power), should outline the vision for the sector, its regulation and management, as well as other implications (growth, fiscal, affected communities, and so on). Such an approach will probably highlight that some planned mining activities represent suboptimal use of the country's natural resources. For example, strip mining, which requires extensive land use, is not likely to be an attractive investment if the areas are fertile and hold potential for efficient farming or other income-generating activities. A few specific actions that need to be part of such a vision include the following:

- An immediate priority would be to improve the management of the existing concessions. This would require resolving overlapping land allocations and more effectively enforcing existing regulations on environmental and social impact assessment. Failure to meet the license requirements should be dealt with through fast and effective license revocation.
- Next, putting in place a framework can help encourage entry of reputable and socially responsible investors. This will require an attractive environment which assures finder's right, clear operational terms, and simplified and transparent licensing and approval. A standardized, progressive, and competitive fiscal regime will be a key part of this package. The effective use of ISP containing transparent geological data and mining cadastre may also make information more accessible to attract responsible investors. Absent such reforms, Lao PDR would probably be better off keeping its resources in the ground.

Increasing agricultural productivity to support incomes

151. Agriculture has a key role in ending poverty and boosting shared prosperity in Lao PDR. Agriculture growth is pro-poor, with the sector accounting for 44 percent of the poverty reduction between 2002/03 and 2012/13. Also, with productivity levels well below regional peers and almost two-thirds of the population engaged in agriculture, the remaining potential is large. There is ownership of the agenda with the government strategy introducing a number of good practice elements. This makes the sector a very high priority for poverty reduction, nutritional security, and shared prosperity.

152. Improved agriculture productivity has strong synergies with a number of development outcomes. More productive agriculture will mean increased household incomes and better access to diverse foods, a key requirement for better nutrition outcomes.

Similarly, it will generate surplus production that could provide competitively priced inputs to a future export-oriented agri-business sector and create more jobs along the food value chain. Also, more productive agriculture is in many ways climate-smart agriculture. For example, competing demands for water are increasing the importance of water productivity, which is much higher in irrigation schemes supporting mixed cropping or rotation crops rather than rice mono-cropping. But agriculture also depends on progress in other areas; especially in education and rural infrastructure, as well as improving the overall business environment. There is a trade-off with consolidation of public finances; however, given the expected benefits from the sector, these are interventions that merit additional resources.

153. A transition from a focus on rice self-sufficiency to competitiveness of rice-based and other farming systems can unleash the productivity in the sector. Paddy production will remain the core of farming systems, particularly in lowland areas and in the monsoon season. But during the cool and dry seasons, the production of other crops, from legumes to vegetables, could make farming systems more resilient and profitable. Improving availability of quality seeds and fertilizers and strengthened research and extension services (that is, promoting climate-smart agriculture), expanding multipurpose irrigation, strengthening participatory water management, and promoting farmers' organizations can facilitate this shift. The supply chain can function more effectively if both agriculture-specific as well as economy-wide constraints to doing business are addressed. Greater availability of information (short message services [SMSs], radio), investments in public food safety infrastructure and in assistance to private sector to be accredited in food safety standards, as well as better rural roads can help farmer access markets. There is evidence that this has helped Lao PDR coffee producers to obtain 70–80 percent of the world price for Robusta in recent years, compared to less than 60 percent in the early 2000s. Promotion of contract farming and access to affordable financing can also accelerate commercialization and diversification and make value chains more inclusive.

154. Given the geographic and climate differences, the policy prescriptions are likely to differ for different parts of the country. The livelihood strategies in the lowland areas will need to center on more commercial rice production and strengthening of the rice-based farming systems through commercialization and diversification. These are the areas where the largest number of poor live. In the upland areas, where poverty density is low but its depth is high, the livelihood strategies of most smallholders will continue to rely on integrated management of crops and livestock, along with sustainable management of natural resources such as forests and wildlife. The uplands can also offer a favorable environment for profitable coffee and fruits and vegetable production.

155. While Lao PDR may still not be sufficiently competitive compared to agriculture giants in the region (Vietnam and Thailand), the sector can still develop through agriculture niches and growing acceptance of fair trade platforms and organic agriculture. Focusing on quality, organic and geographic indication production offers higher rates of return to Lao producers but also places difficult requirements and often higher costs. Being competitive on quality requires a strategy and long-term public investments in infrastructure, capacity building, Lao product brands, and value chain development, which are needed immediately to bring the future benefits. Yet, competitiveness on quality is easier

to maintain when farmers manage to produce larger quantities and use markets in China, Vietnam, and Thailand to absorb these commodities, while gradually working on quality improvements.

Investing in improving nutrition to achieve children's full potential

156. The 44 percent of under-five-year-olds who were stunted in 2012 makes improving nutrition a top priority. Tackling malnutrition requires nutrition-specific interventions as well as applying a nutrition lens to interventions in other sectors (nutrition sensitive). Addressing stunting is about being healthy, consuming nutritious food, and having access to essential health and nutrition services, access to clean water, appropriate sanitation facilities, and education and better care for women and children. A recent report on determinants of malnutrition in Lao PDR confirms that tackling each factor individually will only have a small impact on nutrition outcomes, compared to when multiple factors are addressed at once. This is recognized in the National Nutrition Strategy and Action Plan; however, a recent mapping of activities showed that even though a large number of stakeholders are supporting nutrition interventions, this does not often translate into high coverage, neither geographically nor of target groups (see Annex 3 for more details).

157. Investments in early childhood care, stimulation, and learning are necessary to ensure that from birth, every Lao citizen has the greatest possible opportunity to reach his or her full potential. The foundation of skills development and employment opportunity is set in motion by ensuring that children enter life healthy, receive adequate nutrition in the first 1,000 days of life, and have access to nurturing and stimulating home environments as well as early childhood education (World Bank, 2010d). This requires increased availability of and access to quality services, including:

- Reproductive health services to ensure that women have the number of children they want when they want them
- MCH services (vaccines, preventive, promotive, and delivery care) to ensure maternal and child survival
- Nutrition-related services (supplementation, breastfeeding, and complementary feeding promotion, dietary diversity, deworming, fortification) to stimulate optimum physical and brain development in the first 1,000 days
- Parenting education and safe, nurturing, stimulating home environments to promote socio-emotional and psychological development
- Early learning/early childhood education opportunities to develop children's language, cognitive, and social skills (see section on education below)

158. Without full access to improved sanitation and water supply, open defecation is widespread and increases health risks and is one of the major causes of malnutrition and stunting. A poor hygiene status also limits tourism opportunities. In

addition, the SDG agenda raises the bar by requiring a much higher level of services beyond 'basic access', namely safe, reliable, and accessible from home. Lao PDR should adopt a national universal rural water and sanitation program, including a higher budget allocation. This will also require a sound information system on service coverage and functionality, which is currently lacking in Lao PDR. Support functions to communities managing water systems can be put in place to help improve sustainability of services.

159. While aspiring for universal coverage, existing limitations on resources will require prioritization to high-stunting, low-access areas. Interventions should be targeted at the poor and ethnic minorities to have the greatest likelihood of reducing disparities in health, education, and labor market outcomes. In many cases, this will require social and behavior change to stimulate demand for and consumption of these services as a large part of the unserved population are ethnic groups in remote areas. Media campaigns; outreach activities; interpersonal contacts, especially at the village level; and social transfers can help.

Improving the quality of education and keeping girls in school

160. Increasing the quantity and quality of education is a key priority for achieving the twin goals. More and better education improves the productivity of farmers and better prepares people to make the transition toward non-farm jobs, which have been key drivers of poverty reduction in Lao PDR. Also, with over 30 percent of second graders unable to read a single word and with inadequate labor skills topping the list of constraints to doing business, improving education sector performance is urgent. The authorities have recently increased the allocation to the sector, demonstrating their ownership of the agenda; however, important decisions on prioritizing subsectors and specific interventions are yet to be made.

161. Education has strong links to other priorities. It can support nutrition efforts through improving nutrition of children in schools, but also through better educating girls (also future mothers). Malnutrition and stunting are lower in children with more educated mothers while keeping girls in school longer also reduces the likelihood of early marriages and pregnancies. On the other hand, demand for education services will critically depend on the job opportunities that will be available for graduates. There is a trade-off with consolidation of public finances, though some savings can be generated in the system. For example, revisions to the curricula and teaching norms can help optimize the staffing in the sector. Also, improving the road network and demographic changes may allow for savings to be achieved through consolidation of the network. However, given the importance of the sector, allocating additional funds would represent a good investment of public resources.

162. Given the lack of basic foundational skills, priority should be given on early childhood development and basic literacy. Early childhood education should be expanded, including through cost-effective programs tailored to the needs of the target group (multiage teaching in areas without enough children to sustain a full kindergarten or non-formal models in remote areas). Addressing chronic malnutrition should be an integral part of the early childhood development strategy. Training teachers, ensuring children stay

in schools, and providing access to teaching aides can increase literacy. Lao PDR has an extensive school network; however, gaps in coverage still exist (around 13 percent of villages did not have a primary school within a two-hour walk), while the quality of infrastructure is poor.

163. Reaching vulnerable groups will require targeted interventions. While overall education outcomes are inadequate, they are worse among the poor, girls (at higher levels of education), and ethnic groups. A nationwide rollout of a feeding program can be helpful, as well as implementing appropriate language policies and training teaching staff from non-majority ethnic groups. Importantly, outreach activities and carefully designed social transfers can help increase demand for education services.

164. Early marriage and teenage pregnancies are associated with no school attendance, high dropouts, health complications, stunting, and poverty. Keeping girls in school longer, improving access to birth control tools and reproductive health education, and providing equal opportunities for women's participation in the non-farm labor market can help. A culture of acceptance of early marriages, especially among some ethnic groups, further complicates the process and will require community-level change and outreach activities. Social transfers conditioned on school attendance may help 'nudge' behavior.

165. Keeping students longer in school and ensuring they progress to higher levels of education is important. As outcomes in primary education improve, better access to secondary schooling will become more important. Transition to post-primary education is currently very low, especially in rural areas, and is constrained also by poor access to secondary schools. Better roads, organized student transport, and financial support (cash transfer conditioned on attending secondary school) can help lower barriers to access.

166. While building basic skills will benefit the future labor force, interventions can help address the significant skills issue today. Job-relevant vocational education, delivered in close interactions with the private sector, and on-the-job training can help train workers today. Putting in place an effective framework for standards, accreditation, and quality assurance can promote entry of high-quality foreign education institutions.

Putting public debt on sustainable path and strengthening financial sector stability

167. Lowering risks in the fiscal and financial sectors is a high priority as these could undermine growth and lead to instability that will affect delivery of public services and the vulnerable the most. Growing public debt will at a minimum crowd out spending to other priorities, but could also lead to public sector insolvency. Low reserves and a potentially overvalued exchange rate, thin buffers, and weak governance in significant parts of the banking sector can test macroeconomic stability in case of a larger terms of trade shock or deterioration in the external environment. While debt levels are high and likely to increase further over the medium term, the set of macroeconomic policies recently proposed by the authorities, if implemented, should result in stabilizing debt levels and improved stability prospects.

168. **A stronger tax base can help increase government revenues.** Lao PDR needs to get its fair share of revenues from the use of natural resources. In hydro and mining, this will require a fiscal regime that will be standardized, transparent, internationally competitive, and effectively enforced. While exploitation of forests should be carefully considered, any that actually takes place should be fully taxed. Next, tax regulations need to be reformed to expand the tax base and remove exemptions to ensure growing non-resource revenues while also removing incentives for informality. Reforming tax administration by simplifying procedures (e-filing, simpler forms) and strengthening enforcement (updated tax payer registries and regular audits) can support revenues with the added benefit of reducing the bureaucratic requirements firms face. Recent government decisions appear to be going in this direction, including by eliminating tax exemptions, increasing the excises rate, and strengthening enforcement.

169. **Containing spending will reduce fiscal stress while reallocating through efficiency gains can make the budget more pro-poor.** Currently, Lao PDR spends a lot (as percent of GDP) on wages and capital expenditures and little on goods and services necessary to deliver public services and maintain assets. Optimizing public sector employment, a more efficient public procurement, as well as a careful review of capital spending decisions can free up fiscal space and these measures are on the agenda of the authorities. However, despite a difficult fiscal position, the appetite for large infrastructure projects persists (Lao PDR section of Singapore-Kunming railway, road upgrades, and new airports), which could easily absorb the fiscal space created and lead to further increases in public debt.

170. **Consolidating the fiscal position while improving spending outcomes will require stronger institutions for public financial management (PFM).** The deterioration of the fiscal position and emergence of arrears in recent years underscores the limitations of the PFM systems. Lao PDR needs a PFM system that will put in place a credible and realistic fiscal envelope covering the entire public sector (current and capital spending as well as development partners' support) that will be executed in a predictable and efficient manner. An immediate priority is to improve cash management and reporting arrangements. Improving public debt management capacity (stronger institutional capacity, developing the local capital market) can reduce risks with the recently amended Budget Law and the upcoming Public Debt decree significantly increasing the reporting and analytical demands from the authorities.

171. **Contingent liabilities need to be carefully managed.** More specifically:

- Making an inventory of arrears and a plan for their clearance is a priority, as well as putting in place systems that will prevent arrears from emerging in the future (stopping off-budget spending, strict adherence to the Budget Law, and so on).
- Creditworthiness of EdL would be critical to the success of Lao PDR's growth strategy. This will require strengthened corporate governance, reduction of losses, elimination of payment arrears, and introduction of cost-reflective tariff adjustments. Malaysia's Petronas provides an example of an SOE that effectively created resource rents and

collected and managed revenues to limit volatility, prevent exchange rate overvaluation, and channel investments into productive areas.

172. Public-private partnerships could help improve public services; however, the regulating framework needs to be overhauled first. Under appropriate conditions, there are opportunities to partner with the private sector in delivering high-quality services in a cost-efficient manner. However, Lao PDR's experience with private sector involvement, mostly through so-called 'IOUs' (I Owe You), in many cases resulted in weak adherence to rules, higher unit costs, and overdesign. Such schemes should be replaced with a public-private partnership framework that will adequately address financial, technical, and operational risks.

173. The financial sector is exposed to significant risks, which, if realized, will be detrimental to growth prospects. A major disturbance in the sector will strip people of their savings, have long-term consequence on trust in the financial sector, disrupt financial flows, and create fiscal costs that the budget cannot absorb. Most urgently, the authorities need to deal with banks that have low capital buffers and growing NPLs. In response, the BOL has been working on restructuring plans for two state-owned banks and has requested weaker private banks to produce and implement plans to increase capital levels to the legally required levels. Further, a modern legal framework for bank regulation and supervision and one that is properly implemented would be critical, and the BOL has announced plans to amend the BOL Law by 2018 and the Commercial Banks Law by 2019. The non-bank financial sector remains underdeveloped which keeps risks moderate for the time being; however, going forward it will also require a similar reform agenda to ensure the economy benefits from greater availability of financial sector products while minimizing risks. A more flexible exchange rate arrangement, while helpful in lowering macroeconomic vulnerabilities, could hurt the financial system given the large foreign exchange exposure of banks and borrowers, underscoring the need for urgent attention to the challenges in the banking sector.

174. Recent tension at the parallel foreign exchange market underscores the importance of improved exchange rate management. Policy options that could be considered include introducing more flexibility in the exchange rate (within the ± 5 percent band allowed under the existing policy) as well as supportive monetary and fiscal policies to manage Lao kip liquidity. This should allow the BOL to protect reserves and strengthen the confidence in the domestic currency.

Making it easier to do business and create good jobs

175. A good job provides an exit out of poverty, but firms have created very few jobs. A difficult business environment has constrained the growth of firms and their ability to create jobs and increase wages, making this a high priority. While the reforms are important, improving the business environment will only result in more jobs if the skills gap is addressed and if the legislation is effectively implemented, a concept more closely related to the overarching priority of an across-the-board upgrade of institutions.

176. The compliance and transaction requirements should be simpler and less costly. Increasing the transparency and predictability of the regulatory environment (for example, by publishing laws, regulations, procedures, forms, and fees in easily accessible public domains) will be an important first step. This should be followed by a reduction in the regulatory burden, including moving away from ex ante controls and screening toward effective regulatory oversight. Priority should be given to simplifying business start-up and introducing automatic issuance and renewal of licenses and permits (including for trade) and where possible elimination or simplification. Given the untapped potential in services, especially on the higher end, promoting entry through simpler and more transparent regulations can have significant rewards, including in trade, ICT, air transport, medical and other professional services, logistics, and so on. Lao PDR should aim to remove existing restrictions to entry and reduce state involvement through reduced government presence in economic activities, allowing greater foreign presence in commercial activities and stronger separation between sector regulation and ownership.

177. With a large skills gap, firms should be encouraged to invest in education and skills. Still, the significant skills gap will remain for the considerable future and the authorities should put in place an environment in which this demand can be quickly and efficiently met with imported skills. This can also allow for more rapid transfer of know-how. Such an arrangement allowed Malaysia to meet labor and skills demand even in the early stages of industrialization. At the same time, targeted support programs to build entrepreneurial capacity of domestic managers can better position Lao MSMEs to benefit from available opportunities.

178. Given identified market failures, carefully crafted and fiscally costed government support can help attract investment and create jobs. In general, state support programs provide an unfair advantage for companies and discourage incentives for productivity improvement. Still, the small market size, difficult terrain, or low density keep fixed costs high and may deter firms from investing. In such cases, carefully focused interventions may be able to generate enough profits for investors (Gelb, Tata, Ramachandran, & Rossignol, 2015). It is essential that such targeted interventions address critical market imperfections directly, such as labor issues, business-to-business contacts, standards, and investment climate reforms, rather than providing general and poorly targeted incentives. For example, (Stirbat, Record, & Nghardsaysone, 2015) find that interventions that focus on existing exporters to help diversify markets; promote knowledge sharing with newcomers (through trade associations or peer groups); and target investment promotion toward companies in Thailand or with presence there can increase the survival rate of Lao exports. The authorities have focused their efforts on creation of SEZs, locally addressing critical constraints to private sector development, and have recently had some success in attracting FDI and increasing employment and exports. An important part of the success of some of these zones appears to be the ability to provide a one-stop shop for most government services and improving connectivity, thus reducing significantly costs and bureaucratic requirements. To make the most of this, the authorities should analyze potential mechanisms (such as matching grants, skill and job training) to encourage linkages between firms located in SEZs and firms outside of the zones.

179. Some of the good jobs will come from out of Lao PDR, especially in Thailand with its fast-aging labor force, and elsewhere in the region with the advent of the AEC. The authorities have initiated some policies to assist migrants. Lao PDR and Thai counterparts are working to facilitate the movement of migrants and their access to public services. Still, a more general policy toward the diaspora is lacking. Such a policy could help migrants get better jobs by developing their skills and preparing their departure. It should also encourage the diaspora to remain engaged and potentially incentivize migrants to return to Lao PDR in the future. A better investment climate should be in place to support financial intermediation and private investment by migrants.

Investing in infrastructure for growth and inclusion

180. Improved connectivity lowers the costs of being landlocked in Lao PDR, helps firms remain competitive and create jobs, and assists people in accessing markets and services. Being a small and landlocked country, the performance of firms critically depends on the ability to travel, transit, and trade across borders with ease and at low costs. Continued integration with neighbors and the broader region will be important to allow future investments to benefit from economies of scale, and this is particularly important for the non-resource sector where investments into Lao PDR are likely to be efficiency seeking. Also, an improved power system is important for the country to make the most of its rapidly growing generation capacity. Rural roads are also vital for two-thirds of the population residing in rural areas as they facilitate access to services and economic opportunities. Given the unfinished agenda in this area, this is a high priority.

181. Lao PDR's connectivity has improved considerably in recent years, especially on hard infrastructure. Main road transport corridors have been upgraded in recent years and the road network expanded by 50 percent between 2004 and 2014. In addition, a considerable part of the population and economic activity is concentrated in areas bordering Thailand and has relatively easy access to the Thai infrastructure. Still, the following would need to be addressed:

- Upgrading the regional corridors to ASEAN standards (few sections in Lao PDR are still classified as Below Class III roads) and ensuring effective maintenance. This will require stricter controls on overloading as well as improved capacity to efficiently manage the road network, including planning, prioritization, and maintenance that will also consider disaster resilience. Rebalancing the road sector portfolio away from national roads to local roads can help increase access to universal year-round roads. Realistic traffic volumes should underpin decisions on interventions and upgrades. Introduction of non-discriminatory road charges could help lower the burden on the budget. Off-budget road construction should be stopped.
- Developing a railway network offers both opportunities and risks. Rail transport has significant environmental benefits and some of Lao PDR's key exports could more efficiently be transported by rail. However, railway networks are expensive to construct and run. Embarking upon such massive projects should be done only after careful analysis of the economic, social, and environmental costs and benefits.

- The remaining 15 percent of population without access to electricity are the most difficult to reach due to large distances from the grid, difficult terrain, and low population density. To meet this challenge, the strategy will have to work in parallel on (a) stretching the limits of grid extension by applying innovative and low-cost options and (b) accelerating and scaling up off-grid electrification program. Full electrification will also reduce household air pollution, a major cause of deaths and disabilities, especially among the poor. On both tracks, the poor and vulnerable population will require targeted subsidies to overcome relatively high connection cost.
- To optimize benefits in an environment of growing number of smaller- and medium-size hydropower plants and growing surplus electricity, Lao PDR needs a new strategy for system-to-system transactions and full integration of the domestic power grid. Ongoing investments should integrate the domestic system by 2019. The regional market provides exciting opportunities, especially in trade with Thailand and Vietnam (and Myanmar and Cambodia at a later stage), but this will require a stronger regional transmission infrastructure and eventually a functioning regional power market.

182. As physical infrastructure constraints are gradually addressed, soft constraints are gaining in importance and need to be addressed. More specifically:

- Continuing reforms outlined in the WTO Trade Facilitation Agreement, such as improving procedures, border management, and coordination among all border agencies, would be important to reducing the costs of being landlocked.
- In ICT, establishment of a more effective telecommunications regulatory authority could promote competition among operators based on affordability and quality of telecommunications services, including high-speed or mobile broadband Internet services. Online provision of public services can create content which is currently lacking due to low uptake of ICT by government agencies, while ICT education programs can increase literacy.
- On air connectivity, full implementation of the ASEAN Open Skies Agreement will provide important growth opportunities, especially in tourism.

Improving access to and quality of health services for more productive people

183. Health indicators are slowly improving, but the vulnerable are benefiting less. A healthy labor force is critical to economic growth and inclusion and Lao PDR has been making progress with life expectancy increasing and mother and under-five mortality falling. However, health outcomes remain considerably poorer than other countries at the same level of income. According to (Finmark Trust, 2015), 79 percent of the population did not feel in good health. Also, the persistence of malnutrition can be closely linked to weaknesses in the functioning of the health sector. Given the population's health profile, emphasis should

be given to the preventive and primary care services that also cater to emerging and noncommunicable diseases.

184. In parallel, further upgrades to the physical infrastructure in the sector as well as development of human capital are needed. Improving health worker capacity, skills, and clinical competencies across all levels of care, combined with appropriate performance management measures, is required to address issues around quality of care. However, given the significant amounts of resources needed and the long periods needed for these actions to provide results, putting in place an effective regulatory framework (standards, accreditation, and quality assurance) can promote entry of reputable FDI in the sector and improve quality of services.

185. Actions should focus on closing barriers to access, especially among ethnic groups. Differences across geographical and social factors need to be addressed. Better rural roads can help improve access as almost 38 percent of villages did not have a dispensary within a two-hour walk. Beyond the physical access, social and financial barriers need to be tackled. Increasing the number of health staff from ethnic minorities could help, as well as integrated outreach activities and demand-side measures to remove barriers to access, increase demand for services, and raise awareness for risks (for example, from teenage pregnancies), especially among ethnic minorities and vulnerable social groups. A well-functioning social protection system can reduce financial barriers through transfers conditioned on increasing demand for services, consolidation of the numerous health financing programs, and greater insurance coverage.

186. Improving health outcomes will require additional resources. Improving priority setting and allocating resources on the basis of sound methodology can help generate some savings. In addition, improved procurement processes can reduce costs while more efficient social insurance can help pool risks and share costs. Still, given the relatively low budgetary allocations at the moment, an increased budget for delivery of health services would represent a good investment. Also, with GDP growth, some development partners may discontinue funding for some interventions. Critical preventive programs (immunization, family planning, maternal care, HIV/AIDS) rely on assistance from development partners and may come at risk as the country's income level increases. Careful planning in advance can help avoid disruptions in provision of services.

Putting in place strengthened disaster risk management

187. More frequent and intense shocks are affecting livelihoods through lower yields, higher costs, and loss of infrastructure. Around a quarter of the population was affected by disasters over the last decade, with significant damages to livelihood and infrastructure. The frequency and severity of disasters appears to have increased and most models predict further intensification, underscoring the need to improve DRM.

188. Being better prepared for disasters can significantly reduce costs. With floods being the most frequently occurring natural disasters, a clear priority is to improve the availability and reliability of weather information, through investment in

hydrometeorological services and early warning systems. In general, decision makers in Lao PDR lack necessary information to evaluate disaster risks and filling these data and information gaps is a priority. Importantly, infrastructure should increasingly become more resilient to disasters, including through climate-proof building and construction codes. Disaster-resilient infrastructure in urban centers (water control structures, urban drainage, and solid waste management) and in rural areas (river embankments, retention basins, flood gates, and irrigation and drainage systems) can reduce losses from disasters. This will also better prepare Lao PDR's urban areas to deal with the ongoing urbanization. While pressures appear to be manageable at the moment, investing early on makes sense as urbanization usually precedes development with most of the geographical transformation taking place by the time countries reach a per capita income of US\$3,500 (The World Bank, 2009).

189. Successful recovery requires the Government to rapidly mobilize finances after a disaster and have an effective system and operating procedures in place for their efficient and timely use. Important elements of such a strategy would include (a) consolidation of the various government funds; (b) using standard operating procedures for emergency response; and (c) considering pooling of risks through a mutual insurance fund with other countries in the region (Cambodia and Myanmar). Next, as agriculture is one of the sectors most affected by disasters, introducing drought-resistant seeds for farmers and emergency rice seeds and paddy reserves for the population affected by disasters can also help.

190. Progress on dealing with UXOs needs to accelerate. Since 1996, 55,000 ha have been cleared of UXOs, a fraction of the 8.7 million ha estimated to have been contaminated, due to capacity and funding constraints. The number of casualties has been declining (from 3,000 in 2008 to 45 in 2014) as the authorities introduced a more results-based methodology (The Lao People's Democratic Republic, 2015); however, the large number of UXOs limits access to a significant part of the land and is a potential danger for a big part of the population.

Introducing a basic social protection system to lower vulnerability

191. A fiscally affordable and well-functioning social protection system reduces the risk of poverty and can help promote behavior change. The absence of a social protection system is pushing a lot of people into poverty and increasing vulnerability. While vulnerability is probably best addressed by increasing assets and providing income-generating opportunities, a social protection system can help deal with shocks. Also, international experience suggests that social transfers can be a useful vehicle in 'nudging' behavior which will be critical to making progress on reducing dropouts in education, improving nutrition practices, dealing with teenage pregnancies and utilization of health services (for example, MCH care), or building job-related skills for critical groups (literacy for adults, technical skills for farmers, and so on). The awareness about the need for channeling resources to the poor is gradually developing in Lao PDR and stronger capacity to identify the vulnerable will be needed before a more comprehensive system is rolled out, making this a medium priority.

192. Lao PDR needs to develop a national social protection strategy to outline the type of interventions and instruments that would be applicable to Lao PDR's context and challenges. In the meantime, the share of the populations with financial protection against potentially impoverishing health expenditure needs to increase through greater allocation of resources for HEFs, consolidation of programs, and also more effective enforcement of social insurance requirements in the private sector. This is also the objective of the Government's Universal Health Coverage (UHC) plans. Before new social programs are designed and scaled up, Lao PDR will need to develop a robust mechanism for identifying the poor and to improve delivery mechanisms for targeted, pro-poor interventions. Some early steps have been undertaken recently, with the National Committee on Poverty Eradication and Rural Development and the State Statistics Committee working toward generating poverty scorecards and poverty maps. A stronger safety should also cover the relatively large group of people living with disabilities in Lao PDR. The incidence of disability is assumed to be highly attributable to low standards of health care, widespread poverty, and the high incidence of UXOs. As a start, accessibility of public institutions needs to improve for this group.

Improving inclusiveness of the financial sector to improve access to credit and lower risks

193. A deeper financial sector would help expand MSMEs growth, help households better manage risks, and facilitate investment. Limited access to finance constraints the ability of households, especially the vulnerable, to invest in their assets while lack of insurance prevents them from mitigating risks from economic shocks and natural disasters. In addition to the limited options to those that are interested, low financial literacy and awareness add a significant barrier to financial inclusion. On the side of the corporate sector, access to finance appears to have receded as a concern; however, access is still challenging for a significant part of businesses, especially smaller ones, while recent gains may be undermined in case authorities fail to address risks in the financial sector. While reforms can support financial inclusion, the efforts will only have a more meaningful result in case weaknesses in the general business environment (enforcing contracts, improving financial reporting) and financial sector stability (NPLs, capital adequacy) are addressed before making this a medium priority. There is also strong complementarity with better functioning of land markets. The poor have very few assets that could be used as collateral, and currently in most cases this is land which banks are reluctant to take due to insecurity of tenure. The authorities have pointed to the need to improve access to finance, though their efforts appear to be mostly focused toward directed lending rather than improving the enabling environment for banks to increase financial intermediation.

194. Some specific interventions need to be undertaken early on. In the banking sector, the agenda is overlapping to a significant degree with the actions to lower financial sector risks and macroeconomic stability. More stable banks will improve access to finance, but they will need better credit information infrastructure. Furthermore, a better-capitalized and functional deposit protection fund can help increase confidence in the banking system, while putting in place nationwide, real-time payment systems can increase availability of and

access to financial instruments (credit and debit cards, mobile banking, e-banking, and so on). However, there is a broader agenda covering non-bank financial institutions, such as microfinance institutions (village funds) and insurance and leasing companies, which if properly regulated and supervised can increase availability of financing and instruments in the economy.

Identified data and knowledge gap

195. **Knowledge and data gaps have imposed limitations on some of the analyses in the SCD.** Additional insights were gained in a few areas during the SCD preparation, especially on long-term growth prospects, the outlook for power generation, the linkages between various causes of malnutrition, and the issues affecting businesses. However, a significant gap remains. In many cases, important information is not available or not publicly shared, preventing effective design of policies and monitoring and evaluation. Administrative data systems suffer from weak reporting arrangements, while frequency and coverage of surveys should increase. Furthermore, even when produced, data are either not made publicly available or not disseminated effectively. The rest of this section presents the identified gaps. This list is not exhaustive but provides pointers to critical areas where future data efforts and analytical work may need to focus.

Table 13: Identified data gaps

Broad area	Assessment of data availability and quality
Macroeconomic	Weak and with delay. Important gaps exist, including on expenditure-side GDP. Trade and balance of payments data are very weak. Monetary and financial sector data are also delayed and unclear if they meet international standards.
Fiscal and debt	Weak and with delay. Elements of the economic classification of fiscal accounts are available but are not fully compliant with Government Finance Statistics (GFS) manuals. Functional analysis of the budget is not available. Debt reporting has improved. Recent revisions should ensure compliance with GFS.
Employment	Weak. A labor module is included in the LECS which is done every five years. A labor force survey was done in 2010. Development partners undertake surveys on ad hoc basis (that is, STEP survey in 2012).
Poverty and social	Basic. Poverty data are derived from the LECS, the household expenditure and consumption survey. In general, the LECS provides sufficient information for identifying the poor and vulnerable. However, frequency needs to increase and a light annual survey is being considered.
Industry, private sector	Weak. Enterprises census is undertaken every five years but has limited information and doesn't cover the informal sector. Firm-level data are only available from surveys undertaken mostly by development partners (World Bank's Investment Climate Assessment [ICA], GiZ, and so on).
Health	Weak, but slowly improving with the rollout of the health district information system. Information on immunization, nutrition, and maternal health is particularly weak. The authorities are currently undertaking an update of the Health National Accounts.
Natural resources/ environmental	Weak. Natural resources data from national sources are limited and somewhat unreliable, including due to inefficient collection as well as often

Energy	vague classification systems. Environmental quality is not systematically monitored.
	Weak. The hydropower sector lacks a central database. Energy supply and demand data from different agencies are inconsistent and not always updated or validated. Collection, recording, analysis, and presentation of data from instruments regarding dam safety are not centrally processed, plotted, evaluated, and interpreted for possible consequences.

196. **The knowledge gap in a few areas requires immediate attention.** More specifically:

- The available information on fiscal accounts provides for only a basic understanding of trends and sustainability concerns. Furthermore, lack of data and information has limited the ability to more closely link service delivery to availability of resources.
- Similarly, better understanding the risks to the stability of the financial sector will require more information than currently available. Lao PDR remains one of the few countries that have not undertaken a Financial Sector Assessment Program.
- The information on labor market developments and earnings is very limited, preventing a deeper analysis of labor market dynamics. A Labor Force Survey will be undertaken later in 2016, but more frequent information, especially on trends in wages and sector employment will be useful.
- In agriculture, the knowledge on the functioning of the supply chain needs to be updated.
- A significant knowledge agenda remains in the natural resource sectors. One particular area is the value of natural products and biodiversity. Another is on the need for integrated water management, including the impact it will have over the hydropower strategy. Better understanding of the increase in generation capacity and demand for electricity and implications over public finances is also needed. Dam safety data collection, evaluation, and interpretation merits improvement.
- The understanding of green and resilient growth is still evolving in Lao PDR. Further analysis is needed to tailor this concept to the needs of Lao PDR. This work can also shed more light on how Lao PDR can promote environmentally friendly sectors, such as nature-based tourism.
- ICT sector assessment would look at affordability and access as well as how to use ICT for jobs and public service delivery.

6. References

- Asian Development Bank. (2010). *Country Partnership Strategy: Lao PDR, 2012-2016: Sector Assessment (Summary): Water Supply and Urban Development*. ADB.
- Asian Development Bank and The World Bank. (2012). *Country Gender Assessment for Lao PDR: Reducing Vulnerability and Increasing Opportunity*. Asian Development Bank and The World Bank.
- Bertelsmann Stiftung. (2016). *BTI 2016: Laos Country Report*. Gutersloh: Bertelsman Stiftung.
- Burns, A., Van Rensburg, T. J., Dybszak, K., & Bui, T. (2014). Estimating Potential Output in Developing Countries. *Journal of Policy Modeling*(4), 700-716.
- Bussolo, M., & Lopez-Calva, L. F. (2014). *Shared prosperity: Paving the Way in Europe and Central Asia*. Washington, DC: World Bank.
- Commission on Growth and Development. (2008). *The Growth Report: Strategies for Sustained Growth and Inclusive Development*. Washington, DC: World Bank.
- Durevall, D., & Van der Weide, R. (2014). *Importing high food prices by exporting: rice prices in Lao PDR*. Washington, DC: The World Bank.
- Finmark Trust. (2015). *FinScope Consumer Survey: Lao PDR 2014 - Launch Presentation*.
- Gainsborough, M. (2012). Elites vs. Reform in Laos, Cambodia and Vietnam. *Journal of Democracy*, 23(2).
- Gelb, A., Tata, G., Ramachandran, V., & Rossignol, I. (2015). *When Agglomeration Theory Meets Development Reality: Preliminary Lessons from Twenty World Bank Private Sector Projects*. Washington, DC: Center For Global Development.
- International Monetary Fund. (1999). *Impact of Asia's Financial Crisis on Cambodia and Lao PDR*. Washington, DC: IMF.
- International Monetary Fund. (2011). Investing in Public Investment: An Index of Public Investment Efficiency. *IMF Working Paper*(11/37).
- Jenson, J. (2010). *Defining and Measuring Social Cohesion*. United Nations Research Institute for Social Development.
- Kushnir, K., Mirmulstein, M. L., & Ramalho, R. (2010). *Micro, Small, and MEdium Enterprises Around the World: How Much Are There, and What Affects the Count?* World Bank / IFC.
- Lagakos, D. (2007). *Explaining Cross-Country Productivity Differences in Retailing*.
- Lao PDR. (2015). *Intended Nationallly Determined Contribution*.

- Powel-Jackson, T., & Lindelow, M. (2010). *Community-based health insurance in Lao PDR: Understanding enrollment and impacts*. Washington, DC: World Bank.
- Record, R., & Nghardsaysone, K. (2010). *Export Dynamics and Diversification in Lao PDR: An Analysis of the Product Space*.
- Schneider, F., Buehn, A., & Montenegro, C. E. (2010). *Shadow Economies All Over the World: New Estimates for 162 Countries from 1999 to 2007*. The World Bank.
- Shikha, J., & Zhuang, J. (2014, June). *Financ & Development: Governance Unbundled*. Retrieved May 16, 2016, from International Monetary Fund:
<http://www.imf.org/external/pubs/ft/fandd/2014/06/jha.htm>
- Soukamneuth, B. J. (2006). *The Political Economy of Transition in Laos: From Peripheral Socialism to the Margins of Global Capitalism*.
- Srivastava, P., & Kumar, U. (2012). *Trade and Trade Facilitation in the Greater Mekong Subregion*. Mandaluyong City, Philippines: Asian Development Bank.
- Stirbat, L., Record, R., & Nghardsaysone, K. (2015). The Experience of Survival: Determinant of Export Survival in Lao PDR. *World Development*, 76, 82-94.
- Stuart-Fox, M. (2005). *Politics and Reform in the Lao People's Democratic Republic*. Asia Research Center.
- Stuart-Fox, M. (2011). *Countries at the Crossroads 2011: Laos*. Freedom House.
- The Heritage Foundation. (2015, September). *2015 Index of Economic Freedom: Laos*. Retrieved from <http://www.heritage.org/index/country/laos>
- The Lao People's Democratic Republic. (2015). *The Millenium Development Goals and Lesson Learnt for the Post-2015 Period: A Summary Review*. UNDP.
- The Lao People's Democratic Republic health system review. (2014). *Health Systems in Transition*, 4(1).
- The World Bank. (2009). *World Development Report 2009: Reshaping Economic Geogrpahy*. Washington, DC.
- The World Bank Group. (2016). *Tha Labor Impact of Lao Export Growth*.
- U.S. Department of State. (2015). *Laos Investment Climate Statement 2015*. U.S. Department of State.
- UN Women. (2015). *Progress of the World's Women 2015-2016: Transforming Economies, Realizing Rights*.
- United Nations Office on Drugs and Crime. (2013). *Southeast Asia Opium Survey 2013: Lao PDR, Myanmar*. United Nations.

- United Nations Office on Drugs and Crime. (2014). *World Drug Report 2014*. United Nations.
- United Nations Office on Drugs and Crime. (2015). *Migrant Smuggling in Asia: Current Trends and Related Challenges*. UNODC.
- United Nations Population Fund. (2015). *Population and Development in Lao PDR*.
- United Nations University - EHS. (2016). *World Risk Report 2016*. Bündnis Entwicklung Hilft and United Nations University – EHS.
- USAID. (2014). *Climate Change in the Lower Mekong Basin: An Analysis of Economic Values at Risk*.
- WHO and Ministry of Health, Lao PDR. (2012). *Health Service Delivery Profile: Lao PDR 2012*.
- World Bank. (1988). *Lao PDR; Country Economic Memorandum*. Washington, D.C.: World Bank.
- World Bank. (1994). *Lao PDR: Country Economic Memorandum*. Washington, DC: World Bank.
- World Bank. (2010a). *Lao PDR Development Report 2010: Natural Resource Management for Sustainable Development: Hydropower and Mining*. Washington, DC: World Bank.
- World Bank. (2010b). *Migration and Remittances Factbook 2011: Lao PDR country profile*. World Bank.
- World Bank. (2010c). *Lao PDR Civil Service Pay and Compensation Review: Attracting and Motivating Civil Servants*. Washington, DC: World Bank.
- World Bank. (2010d). *Stepping Up Skills*. Washington, D.C.: The World Bank.
- World Bank. (2012). *Lao PDR: Labor Standards and Productivity in the Garments Export Sector*.
- World Bank. (2012a). *School Based Management in Lao PDR: Current Conditions and Recommendations for the Future*. World Bank.
- World Bank. (2014). *Lao PDR: Investment Climate Assessment 2014: Policy Uncertainty in the Midst of a Natural Resource Boom*. Washington, DC: The World Bank.
- World Bank. (2014a). *East Asia Pacific At Work: Employment, Enterprise and Well-being*. Washington, DC.
- World Bank. (2014b). *Lao PDR Development Report 2014: Expanding Productive Employment for Broad-Based Growth*.
- World Bank. (2014e). *Lao PDR: Trade and Transport Facilitation Assessment*.
- World Bank. (2014g). *Diversified Development: Making the Most of Natural Resources in Eurasia*. Washington, DC: World Bank.

World Bank. (2015). *Strengthening Water Supply, Sanitation and Hygiene Sector Coordination in Lao PDR*.

World Bank. (2015b). *Lao People's Democratic Republic: The Poverty-Rice-Nutrition Nexus*. Washington, DC: World Bank.

World Bank Water and Sanitation Program. (2009). *Economic Impact of Sanitation in Lao PDR*.

World Bank, IRRI, and FAO. (2012). *Lao PDR Rice Policy Study*. World Bank, International Rice Research Institute, Food and Agriculture Organization.

Annex 1: Understanding Lao PDR's infrastructure deficit

Lao PDR's infrastructure stock has been rapidly growing, and in general, is in line or in some cases exceeds what would be expected from its income levels. Still, gaps in coverage exist while the quality of infrastructure needs to improve.

The road network expanded to 47,318 km in 2014, a 50 percent increase from a decade before, out of which 52 percent was paved (47 percent in 2004). While road density is low (20 km of road per 100 km²), taking into account population and vehicle numbers, the network is quite extensive, whether looking at kilometers per 1,000 persons or vehicles per kilometer of road. Still, gaps in coverage exist, including 8 percent of villages without roads and a bigger number without all-season roads.

The quality of roads is comparable to regional peers at its income level; though, it may have declined. None of the 2,857 km of roads in Lao PDR that are part of the ASEAN Highway Network can be classified as above Class II and around 10 percent are Below III with this percentage increasing slightly between 2012 and 2015. The WEF GCR score on quality of roads is 3.6 (only Malaysia, Singapore, and Thailand have better scores), down from 4.2 few years ago.

Table 1.1. Indicators of road connectivity

	LAO	MMR	MYS	UMIC
Road density <i>km of road per 100 km²</i>	20.0	5.6	47.0	25.4
Roads, paved <i>(% of total roads)</i>	52.0	45.7	80.9	67.0
Vehicles <i>Per km of road</i>	7.8	9.3	70.1	30.4
Roads <i>Per 1,000 population</i>	7.3	0.6	5.3	

Note: LAO - Lao PDR; MMR - Myanmar; MYS - Malaysia; UMIC - Upper middle income countries

Table 1.2. Quality of infrastructure

	LAO	VNM	THA	KHM	MYS	MMR
Quality of roads <i>On a scale of 1-7</i>	3.6	3.3	4.4	3.3	5.7	2.3
Quality of airport infrastructure <i>On a scale of 1-7</i>	3.8	4.2	5.1	3.7	5.7	2.6
Available airline seat, <i>km/week, millions</i>	23.3	917.7	2,866.9	93.6	1,974.2	105.3
Quality of electricity supply <i>On a scale of 1-7</i>	4.7	4.1	5.2	3.1	5.8	2.7

Note: LAO - Lao PDR; VNM - Vietnam; THA - Thailand; KHM - Cambodia; MYS - Malaysia; MMR - Myanmar

Source: WEF GCR

The length of transmission and distribution lines increased by almost 60 percent in a time frame of only five years between 2009 and 2014 to reach almost 47,000 km allowing for

strengthening of the national system and improved links to other countries, mostly Thailand. Within ASEAN, the perceptions on the quality or electricity supply are better only in Malaysia, Thailand, and Singapore. Still, 15 percent of villages are yet to be electrified and connections with other potential exports markets need to be constructed.

The air transport infrastructure has expanded, with new airports added and others upgraded. The number of airports may be excessive for current traffic volumes; though, airports with higher passenger frequency may need upgrades. The quality of infrastructure is in line with regional income peers, but the number of passenger arrivals is low, also due to a delayed process of opening up.

Other infrastructure is less developed. Lao PDR has only few kilometers of rail and no pipelines. Also, river transport is very limited as only a small percentage of rivers are sailable. Second-generation infrastructure is growing, but lags countries in the region. Internet penetration and mobile subscriptions are low even by lower-middle-income country standards.

Access to improved sanitation facilities is above levels observed in Cambodia and in lower-middle-income countries; however, lags other countries in the region. Access to improved water source is higher; however, the comparisons to other countries are even worse with coverage levels on par with Cambodia and below all regional and income peers.

Annex 2: Development by harnessing natural resources—an example

Once dependent on primary products, Malaysia today is an upper-middle-income economy and one of the largest exporters of integrated circuits, electronics, and solar panels. While at times adopting unorthodox policies (that is, large government presence, industrial policies, entry restrictions), its success is due to policies that facilitated efficient use of natural resources, collection of resource rents, and investment into human and physical capital, supported by accountable institutions that prioritized stability and competitiveness.

Efficient use of resources. Natural capital accounted for 20 percent of national wealth in 2005, most of it in oil and gas, but also forests, agriculture land and other subsoil assets. In oil and gas, the state-owned Petronas, in partnership with foreign parties, expanded production, diversified into downstream activities (refining, processing, retail) and converted the resource rents into government revenues. In agriculture, Federal Land Development Authority (FELDA) policies, such as land allocation through settlements and accompanying extension and marketing services, helped diversify the sector.

Investing in human and physical capital. Malaysia invested more than the resource rents it received building a large capital stock (ranked 24 on the infrastructure pillar of the WEF GCR). At the same time, the share of workers with secondary education or higher increased from 43 percent of the labor force in 1982 to 81 percent in 2014. Education became more accessible to low-income households, including through the FELDA settlement programs which allowed for more efficient provision of services and infrastructure. Meanwhile, it put in place a robust regulatory framework for higher education (standards, accreditation, and quality control) that turned Malaysia into an international center for tertiary education. Affirmative-action policies complemented increased supply and helped integrate the more vulnerable groups. To respond to immediate concerns about lack of skills and workers, it opened up the market to foreign labor since the beginning of its industrialization process.

Institutions. Economic management was generally prudent with low and stable inflation, moderate debt levels, manageable external balances, and a competitive exchange rate. The fiscal deficit between 1990 and 2015 was on average 2.2 percent of GDP with some countercyclical fiscal behavior following shocks. Monetary and financial sector policies reacted to signs of risks, though this still did not prevent episodes of crisis. Petronas played a key role by limiting volatility, preventing exchange rate overvaluation, and investing into productive areas. While its governance arrangements are not necessarily ‘good international practices’ it still achieved world-class efficiency. Also, despite, at times significant restrictions to market entry and distortions, a focus on attracting FDI and an export orientation ensured strong competitive pressures and accountable service providers. Malaysia has traditionally been a place with sound regulatory quality and a place where it is easy to do business (ranked 18 on Doing Business).

Importantly, not everything worked. Rice subsidies failed to make the sector competitive and ended up being a burden on the budget. Industrial policies to develop sectors without

strong comparative advantage (for example, heavy industry and automotive) also did not produce the desired results. Importantly, the expansion in plantation agriculture and logging also contributed to some environment degradation.

Annex 3: The agenda to tackle malnutrition

The Government is making some progress in institutionalizing and implementing multisectoral and multi-stakeholder interventions that enhance food security and nutrition. Initial progress has been made on strengthening local governance mechanisms and enhancing the capacity for planning, delivery and monitoring.

In 2015, a multi-stakeholder process for the development of a National Nutrition Strategy and Action Plan was facilitated by the Secretariat of the National Nutrition Committee, with the support of the UN team and the Scaling Up Nutrition (SUN) Civil Society Organization (CSO) network. The Strategy and Action Plan were presented at the first National Nutrition Forum (chaired by the Deputy Prime Minister) on November 20, 2015, and have been published and distributed in Lao and in English languages.

The development of a Strategic Action Plan for Social and Behavioral Change Communication for Improved Health and Nutrition has also been initiated by the National Nutrition Committee's secretariat and the Ministry of Health, with financial and technical support from the World Bank, UNICEF, EU, and other development partners. Consensus was reached on the multisectoral scope of the strategy, which includes key behavioral clusters around maternal care and nutrition, infant and young child feeding, water and sanitation, and agriculture and food security related practices. In the interim, a media campaign—via national and local TV and radio stations—using existing video and audio resources has been implemented and a community-based integrated nutrition package is being supported in selected districts with the highest rates of undernutrition, food insecurity, and poverty.

Mapping of existing programs was conducted by the office of the secretariat to the National Nutrition Committee with support from the UNICEF, EU, SUN network and other development partners. The mapping has generated information on nutrition coverage, budget, and activities according to priority interventions. In summary, the findings showed that a large number of stakeholders are supporting nutrition interventions, but at present this does not often translate into high coverage, neither geographically nor of target groups. For example, of 13 evidence-based, high-impact direct nutrition interventions only some micronutrient and deworming interventions are at scale. Almost US\$42 million is reported as spent in 2015—half of what is required per year for the next five years and reaching a limited number of beneficiaries. Similarly, just over half of the funding required for the period 2016–2020 is either allocated or expected from stakeholders.

Annex 4: Nature-based tourism

According to the 2014 Lao Tourism Statistics Report, the number of visitors to Laos grew by 19 percent per year in the last 10 years reaching 4.1 million tourists in 2014 and generating US\$641 million foreign exchange revenues. Of those visitors 3.7 million are on holiday (260,000 on business) of which a small but increasing fraction are adventure and nature-based tourists. Yet the growth potential might lie with this segment of the tourism market. The development of environment-friendly nature-based tourism in Lao PDR provides an exciting opportunity to create jobs and fiscal revenues while preserving natural resources especially in rural areas, where options are limited. Lao PDR's geographic location in South East Asia, diverse culture and traditions, combined with spectacular landscape, cave waterfalls, and a large number of natural and cultural sites provide a solid foundation for further expansion of the sector. Growth of leisure travelers and environmentally conscious consumers in the region is also creating the demand for the industry. Lao PDR's efforts to expand its tourism sector is also boosted by the concerted efforts of Cambodia-Lao PDR-Myanmar-Vietnam (CLMV) for increasing the value proposition of the subregion, such as through improved physical connectivity. A common point of attraction across CLMV countries is nature, which the Governments have recognized and are supporting through initiatives such as the ASEAN Declaration on Heritage Parks to increase sustainable tourism activity in natural protected areas under the Declaration.

Costa Rica may provide a useful model for Lao PDR. Around 50 years ago, its forests faced a reality similar to Lao PDR today. Forest cover had declined to 26 percent of the territory due to growing pressures from agriculture, mining, and logging. However, the situation was dramatically reversed for the better. The policies focused on removing barriers for investment in nature-based tourism accompanied with policy reversal in biodiversity and forest conservation, establishing of new protected areas, and providing incentives (payment for environment services) to preserve the environment. As a result, forest cover was restored to around 50 percent of the territory. But, this had costs as people were relocated, the timber industry was downscaled and the incentives became a significant cost for the budget. These were offset by growth in tourism, targeting the high-end of the market. Tourism arrivals grew by 14 percent per year on average to reach 2.8 million tourists in 2014.

For Lao PDR to follow this example it would need to reverse the trend of forest cover decline and protect natural resources. But, the agenda is broader. Tourism is a sector with strong linkages and requires efficient connectivity (airlines, roads) and hospitality (restaurant, hotels). Reforms to improve connectivity and human capital would be critical. An appreciating exchange rate could also be hurting the prospects of the sector. Also, while people want a way to experience nature, they prefer to avoid being exposed to the realities of poverty and require easy access to high-quality services (for example, facilities with good health and hygiene standards). Still, some sector-specific interventions can help. Importantly, the awareness of Lao PDR as a tourist destination is low and will require a better-organized sector and promotion. Also, standards on the use of protected areas for tourism purposes should be developed and efficiently enforced.