

Lao PDR

A. Medium-term economic outlook (forecast, 2019-23 average)

GDP growth (percentage change): 7.0
Current account balance (% of GDP): -11.1

B. Medium-term plan

Period: 2016-20
Theme: Continued poverty reduction, graduation from Least Developed Country status through realisation of national development potential and comparative advantages, effective management and utilisation of natural resources and strong regional and international integration.

C. Basic data (in 2017)

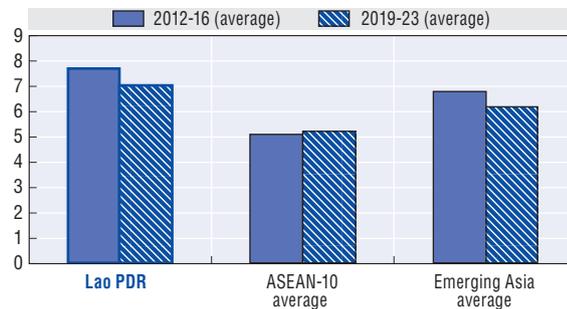
Total population: 6.9 million*
Population of Vientiane: 0.9 million*
Nominal GDP (US dollar): 17.0 billion**
GDP per capita at PPP: 7 385.7 (current International Dollar)**
Exchange rate in the first half of 2018 (period average): 8 311.5 (LAK/USD)

Note: * Population data are mid-year government estimates.

** IMF estimate.

Sources: OECD Development Centre, national sources and IMF.

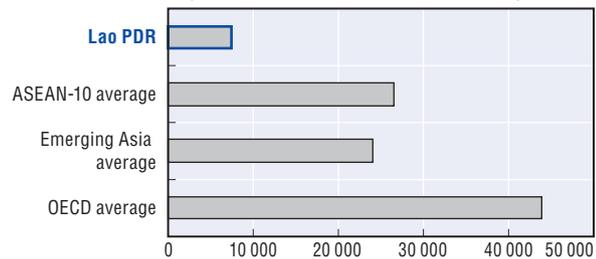
GDP growth rates (percentage changes)



Source: OECD Development Centre, MPF-2019.

GDP per capita, 2017

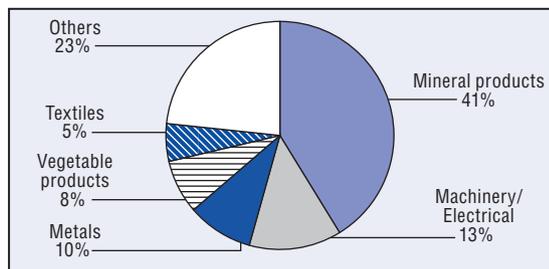
(PPP, current international dollar)



Source: IMF.

Composition of exports, 2017

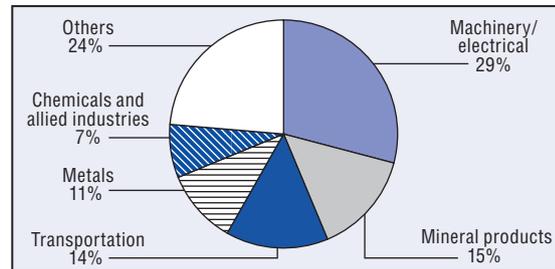
(percentage of total exports)



Source: Trademap.

Composition of imports, 2017

(percentage of total imports)



Source: Trademap.

Structural policy challenges discussed in previous editions of the Outlook

2014	Poverty	Reducing poverty through inclusive growth
	Natural-resource management	Improving national resource management, in particular in mining, to ensure environmental sustainability
	Infrastructure	Developing transport infrastructure to speed up rural development
2016	Natural resources	Managing the boom in natural resources
	Small and medium-sized enterprises (SMEs)	Fostering the development of SMEs
	Tourism	Promoting travel and tourism
2017	Hydro-power development	Promoting small hydropower projects
	Special Economic Zones (SEZs)	Strengthening skills to make the most of the country's SEZs
	Tourism	Boosting tourism by fully exploring opportunities in the Association of Southeast Asian Nations (ASEAN)
2018	Education	Improving access to education and reducing disparities

Recent developments in policy areas covered by previous editions of the Outlook

Natural resources: expanding energy trade with neighbouring countries

- In January 2018, Lao PDR and neighbouring Myanmar signed a memorandum of understanding initiating a feasibility study for trade in electricity between the two countries. If the study is successful, Myanmar may purchase about 100-200 megawatts of power from Lao PDR through its northern power grids.

Promoting local products and smaller companies with a new intellectual property law

- A new intellectual property law (No.38/NA) came into effect in June 2018, replacing legislation from 2011 (No.01/NA). The new law aims to support trade and investment and to boost the competitiveness of local businesses thanks to a closer alignment with international standards. It is part of the government's efforts to promote better integration within a single market for the whole of the Association of Southeast Asian Nations (ASEAN), as envisioned in 2015 with the establishment of the ASEAN Economic Community. The new law should support the development of SMEs in a number of ways, including by streamlining the registration of trademarks, improving mechanisms for resolving disputes, and strengthening protection for intellectual property rights. More regulations will follow the new law in order to support its smooth implementation.

Encouraging tourists to visit

- According to the latest statistics from Lao PDR's tourism authority, the total number of foreign tourists fell in 2017, due mainly to a significant decrease in visitors from Western countries. Recognising tourism as a priority sector for socio-economic development, the government of Lao PDR launched the "Visit Laos Year 2018" campaign in November 2017 in order to promote the country in the international community and attract more visitors. This campaign has included activities hosted both at home and abroad, including festivals in various provinces across Lao PDR. For 2018, the government aimed for Lao PDR to attract at least 5 million foreign visitors and to generate more than USD 900 million in revenues from international tourism.

Improving the quality of education by addressing various challenges

- A recent survey of schools in Lao PDR shows that there is a serious lack of teachers across the country. According to the education ministry, mismanagement is one of the primary causes of this teacher shortage – there are too many teachers for some subjects but too few for others. In addition, many teachers have to teach subjects that they are not trained for, lowering the efficiency of their work. To tackle this challenge, and to improve the general quality of education, the education ministry recently changed the way that new teachers are selected. To this effect, it has now given schools the right to choose between teachers who have passed the qualification examination.
- A new national curriculum for primary education is currently under discussion in Lao PDR, and will be rolled out gradually as of September 2019. The new curriculum covers nine subjects including the Lao language, mathematics, science and the environment, morality, arts and handicrafts, music, physical education, English (from Grade 3) and social studies (from Grade 4). Unlike the old curriculum, the new one will focus on promoting active learning by allowing students to engage in lessons by taking part in activities. Teachers will also receive detailed guides for every subject, which include information about how to organise lessons, how to work with multi-grade classes, and other advice on teaching.

POLICY FOCUS

Diversifying Lao PDR's energy portfolio by developing solar power

Hydropower continues to dominate, but has its limits

Lao PDR features mountainous areas with major tributaries of the Mekong River and contains about one third of the Mekong River basin. This geographical feature, together with the country's relatively high annual rainfall, grants Lao PDR advantages in hydropower and makes electricity exports to neighbouring countries a driving force for its economic growth. As a result, hydro plants currently produce most of the country's electricity. Data from the state power company Électricité du Laos show that, prior to 2013, all of the country's electricity was produced by hydropower plants. Since 2013, biomass has also been used to produce electricity and accounts for roughly 0.02-0.03% of Lao PDR's overall energy portfolio. As of 2015, when the Hongsa power plant came on line, coal has also been used, and it accounts for 14% of total electricity production. The use of solar power was first recorded in 2014, but its overall footprint remains tiny in comparison to other sources (Table 3.9.1).

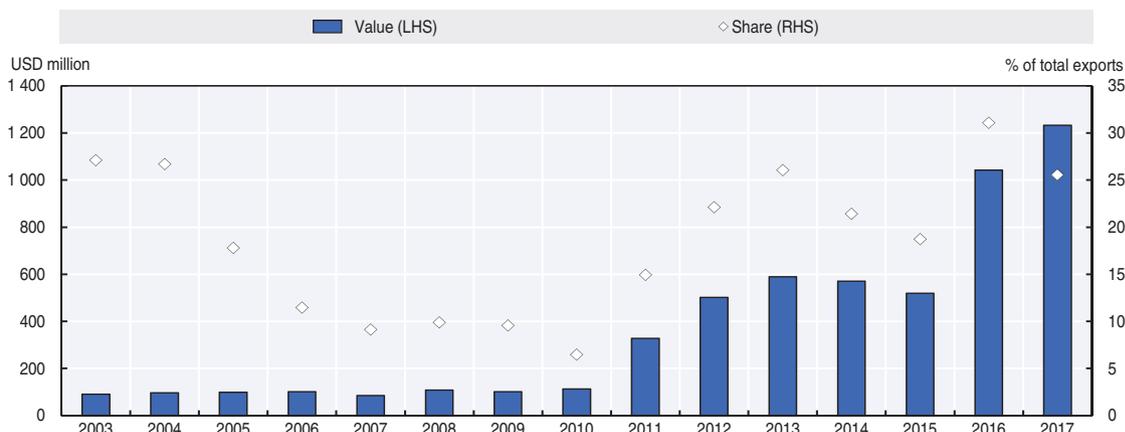
Table 3.9.1. Sources of electricity production in Lao PDR, 2000-15

	GWh			
	Hydro	Coal	Solar	Biomass
2000	3 438			
2001	3 654			
2002	3 604			
2003	3 178			
2004	3 348			
2005	3 509			
2006	3 595			
2007	3 374			
2008	3 717			
2009	3 366			
2010	8 449			
2011	12 969			
2012	13 057			
2013	15 505			5
2014	15 270		0.001	5
2015	14 039	2 259	0.001	4

Source: ERIA (2018).

Power exports are a major source of revenues for Lao PDR and have contributed to the country's robust economic growth over the past decade, representing about 26% of total exports in 2017 (Figure 3.9.1). While hydropower accounts for more than 86% of electricity generation in Lao PDR, over-reliance on hydropower could lead to several problems. First of all, its potential is limited. Indeed, the financially-viable hydropower potential of Lao PDR is expected to reach its maximum by 2030, and diversification is needed to sustain the country's economic development and to absorb an increasing working-age population that is not expected to peak until 2050 (ADB, 2017).

Figure 3.9.1. Value and share of electricity exports from Lao PDR, 2003-17



Source: OECD Development Centre calculation based on data from CEIC.

StatLink  <https://doi.org/10.1787/888933887272>

Moreover, although about 90% of the Lao population currently have access to electricity, hydropower alone is unlikely to cover the proverbial “last mile” and provide universal access to electricity to the entire country. As hydropower plants need to be installed at specific locations along rivers, electricity has to be transferred via inefficient national transmission and distribution networks to reach the rest of the country. In some regions, as much as 20% of power supply can be lost during distribution, and the local governments are then forced to import electricity (World Bank, 2015). Lao PDR imported about 2 050 gigawatt hours (GWh) worth of electricity in 2015, approximately 17.8% of the country’s electricity exports in the same year.

In addition, hydropower is affected by seasonal factors, and its performance may be disrupted by extreme weather conditions (such as a prolonged dry season). Such conditions are becoming more and more regular due to global warming and climate change. Therefore, the country will need to use alternative power sources to support its domestic needs if and when this happens.

Furthermore, hydropower generation requires the construction of large man-made structures such as dams along waterways. These can damage the local environment, displace local residents, and herald other possible negative impacts including risks to people living downstream. One example of such a threat is the recent flooding in Attapeu province due to the collapse of the Xe Pian-Xe Namnoy hydropower dam (KPL, 2018).

Government backing for renewable energy beyond hydropower, notably solar

Recognising the need to diversify energy generation, the government of Lao PDR has started exploring the potential of other energy resources beyond hydropower, notably non-hydro renewables. Indeed, it has established the development of renewable energy other than hydropower as one of its main priorities, aiming to increase the share of non-hydro renewable energies to 30% of total consumption by 2025 (OECD, 2017).

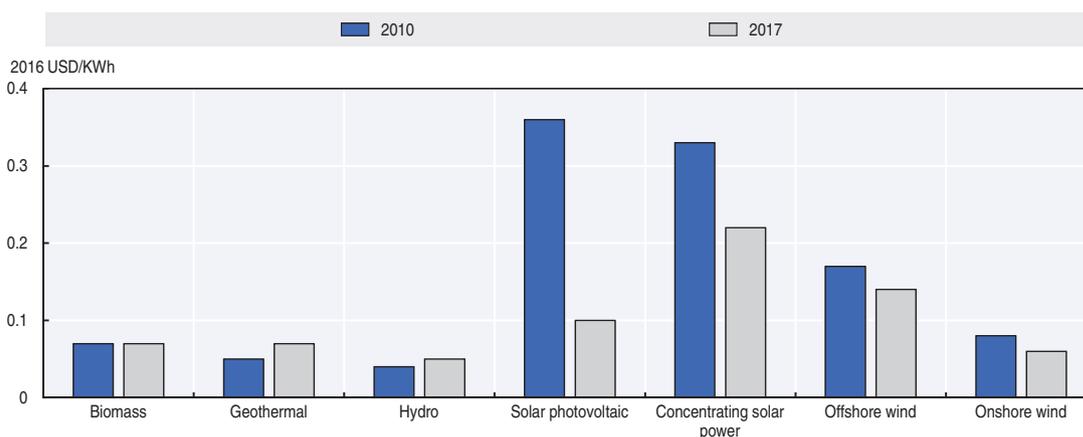
Studies show that Lao PDR has potential to develop solar power. Moreover, the capacity of solar panels to generate electricity from direct sunlight, which is especially strong during the dry season, also makes solar power a good complement to hydropower. In addition, solar power systems can be installed in close proximity to end users, avoiding power losses through transmission. Currently solar power production only accounts for a minuscule share of Lao PDR’s electricity output, but it has huge potential for growth if policy makers can address a number of challenges and obstacles.

Currently, the footprint of solar power in Lao PDR extends mainly to the small home systems installed by actors in both the public and the private sectors. They are present notably in the rural areas that the national grid cannot reach. Most of these solar power modules are funded either by international organisations, foreign aid, or private companies themselves. More than 18 657 households across 430 villages in total – equivalent to 1.64% of total households nationwide – have consumed electricity from these solar power systems (GOL, 2016). While many solar power systems in the country are quite small, around one megawatt (MW) or less, the government has reportedly started several relatively large projects recently. In 2017, the first significant solar power project was set up to supply power for Vientiane, the country’s capital. It began by generating 10 MW of electricity, with further expansion up to 100 MW planned for 2020 (DFDL, 2017). This rapid scaling up underscores solar power’s considerable potential in Lao PDR, in contrast to its negligible share in the energy industry at the moment.

According to past research from the government, Lao PDR enjoys up to 300 days of sunlight per year, and the south of the country has many good locations for solar power projects (GOL, 2011). A more recent and detailed study conducted by the United States Agency for International Development (USAID) and the National Renewable Energy Laboratory (NREL) conveyed a similar message. The study investigates the potential of three non-hydro renewable energy sources in Lao PDR, including solar photovoltaics (PV), wind power and biomass, and concludes that solar PV has the largest potential capacity which is almost 50% more than the second largest wind power (USAID/NREL, 2018). The study also found that the most attractive solar PV resources in Lao PDR are located in the southern provinces of Attapeu, Champachack, Saravane, and Savannakhet, in addition to Vientiane and Vientiane Prefecture in the north.

While Lao PDR’s solar power potential is remarkable, potential capacity does not always translate into financially feasible power production. The biggest and most well-known issue with solar power is its relatively high production cost. Indeed, according to an estimation by the International Renewable Energy Agency (IRENA), the levelised cost of electricity (LCOE) from utility-scale solar power is the highest among all renewable energies including biomass, geothermal, hydro, and wind power (Figure 3.9.2). In 2010, electricity produced by solar PV systems was priced at 0.36 constant USD per kilowatt hour (KWh), in comparison to 0.04 for hydro.

Figure 3.9.2. Cost of electricity from utility-scale renewable energies, 2010 and 2017



Note: Electricity cost in this figure is global weighted average levelised cost of electricity (LCOE).

Source: IRENA (2018).

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Advances in solar power are making it cheaper, narrowing the gap with hydro

Nevertheless, this trend has started to change. Thanks to a significant drop in cost driven by an 81% fall in prices for solar PV modules, and reductions in so-called balance of system costs, electricity from solar PV was only about twice as costly as hydropower by 2017, and its cost will continue to decline (IRENA, 2018). However, despite a narrowing gap in production costs, solar power in Lao PDR is still in its infancy, and many investors are reluctant to enter the new industry due to uncertainty on profits and the lack of a regulatory framework.

In order to facilitate the growth of solar power, the government of Lao PDR has listed solar power as an important component for developing off-grid electrification, and also as a way to create sustainable new incomes and reduce poverty. The government did so as part of its eighth five-year national socio-economic development plan for 2016-20. The energy ministry has also displayed its commitment by voicing support for developing solar power in various locations such as the annual Solar and Off-Grid Renewables South East Asia event in Bangkok in 2016.

In order to explore the full potential of solar power and support the growth of this new industry, the government could consider providing investment incentives to lower the risk of entering the sector. The administration should also draft updated and more detailed guidelines on investing in solar power, which could facilitate investment both from abroad and from domestic sources.

Key government ministries in Lao PDR

President	Bounnhang Vorachith
Prime Minister	Thongloun Sisoulith
Agriculture and Forestry	Lien Thikey
Education and Sports	Sengdeuan Lachanthaboun
Energy and Mines	Khammany Inthirath
Finance	Somdy Douangdy
Foreign Affairs	Saleumxay Kommasith
Home Affairs	Khammanh Sounvileuth
Industry and Commerce	Khemmani Pholsena
Information, Culture and Tourism	Bosengkham Vongdara
Justice	Xaysy Santivong
Labour and Social Welfare	Khampheng Saysompheng
National Defense	Chansamone Chanyalath
Natural Resources and Environment	Sommath Pholsena
Planning and Investment	Souphanh Keomixay
Post, Telecom and Communications	Thansamay Kommasith
Public Health	Bounkong Sihavong
Public Security	Somkeo Silavon
Public Works and Transport	Bounchanh Sinthavong
Science and Technology	Boviengkham Vongdara
Governor of the Bank of Laos	Somphao Faisith

Note: Valid as of 16 October 2018.

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