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# TIMOR-LESTE'S DRIVERS OF GROWTH AND SECTORAL TRANSFORMATION

**SUMMARY** 

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**SUMMARY** 

# **ACKNOWLEDGEMENTS**

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#### **WHO ARE WE**

Established in 2008, the International Growth Centre (IGC) is a partnership between two leading British universities: the London School of Economics and Political Science (LSE) and the University of Oxford (Oxford). IGC aims to promote sustainable and inclusive growth in developing countries by providing demand-led, independent policy advice based on frontier research. IGC works closely with government and non-government partners in a number of developing countries to generate rigorous evidence to shape policy in four key areas: state effectiveness; firms, trade and productivity; cities; and energy and environment.

#### **CONTEXT**

In July 2020, IGC, following a request from the Minister of the Presidency of the Council of Ministers, H.E. Fidelis Leite Magalhães, facilitated by the United Nations Resident Coordinator, Roy Hemansu Trivedy, agreed to conduct a study on potential drivers of growth and sectoral transformation in Timor-Leste. This paper aims to outline evidence and provide policy recommendations that would guide government policies towards achieving greater economic diversification away from oil and setting the country on a more sustainable development path. This study hopes to inform the government's forthcoming medium- and long-term development strategy and to support the 2021 State Budget debate.



### INTRODUCTION

Timor-Leste has made impressive gains in socio-economic development and stability since the restoration of independence in 2002. Yet, significant challenges continue to hold the country back from transforming the economy and achieving sustainable and inclusive economic growth. Arguably, the Government finds itself at a pivotal moment to undertake the policies needed to do so.

First, pre-existing complexities and underlying vulnerabilities have deepened since the outbreak of COVID-19. At the macroeconomic level, the World Bank estimates the largest GDP fall since independence, at around-6.8% for 2020. From a microeconomic perspective, the recent UN Socio-Economic Impact Assement argues that one in four households has had one family member lose their job. Moreover, half of surveyed micro, small, and medium entreprises have opted for indefinite closure, and 80% reported financial losses. Indicators of gender disparity and food security appeared to have also worsened.

Second, unless new oil fields are developed and oil prices recover, the Petroleum Fund, which finances most of the government expenditure, will begin to deplete rapidly. Third, the workforce is expanding due to the growing young population, who will demand decent jobs and incomes. Finally, the country has achieved a good level of political stability after a few turbulent years, which offers momentum for positive change.

Given these circumstances, there is urgency to achieve a sustainable and inclusive economic development transition, as well as the political stability needed to make this possible. The government needs to act swiftly in order ensure strong economic recovery, and build back more resiliently and inclusively post-COVID-19. Critically, by maximising the development potential of its Petroleum Fund, leveraging its geographic characteristics, and providing productive jobs to a growing workforce, the country has the opportunity to improve its socio-economic development trajectory.



A key factor for economic development in Timor-Leste is for the government to build, reinforce, and maintain trust – a critical driver to escape state fragility. Governments worldwide, especially in resource-rich countries, are experiencing marked declines in trust from their electorates because of their tendency to over-promise and under-deliver, as well as to pursue grand visions rather than address the practical needs of their populations. This has tended to generate unrealistic expectations and trigger dissatisfaction and frustration among citizens that do not see change. To avoid this and secure public trust and support, the government needs to deliver on people's demands through an inclusive strategy, being the guiding document of government policy, which should form the basis for the formulation of ministerial and sectoral strategies and actions plans, provide the critical benchmark against which government decisions are assessed, and obtain buy in across all levels of society. To be effective, such a strategy should be:

- **Practical** and supported by a **step-by-step** approach.
- Realistic in its objectives and underpinned by the necessary resources to achieve sound implementation.
- Adaptive to future challenges and circumstances, capable of "learning and adjusting as it goes". Given the uncertainty that economic transition involves, the government should recognise that the plan can never be perfect, but work must start somewhere and the plan can be improved over time.
- Capable of delivering visible benefits relatively quickly to the population.
- Wise because it blends expert, research-based knowledge with practitioner knowl-
- Job-based, because income-earning jobs build a sense of agency in people by putting them in a position to contribute productively to society and their livelihoods. The strategy should move away from policies that promote the dependence of people on the state (e.g. by over-relying on fiscal transfers).

Additionally, the strategy should enjoy bi-partisan support so that it can outlive changes in the political cycle without losing its relevance, and be reflected in budget allocations and sectoral spending. Ultimately, such a strategy should promote a forward-looking, common purpose that the entire population can buy into and that is clearly communicated by trusted leaders.

#### The importance of policy prioritisation

While the Government of Timor-Leste is faced with multiple diverse, urgent, and competing challenges, its financial resources are not unlimited and should also be preserved for future generations. Therefore, selection and prioritisation of policies is an essential element to the strategy's success. Hoping to tackle and fix all economic issues at once is both unrealistic and resource-wasting. To be effective, a strategy needs to prioritise policies:

- Most urgent and actionable
- Most likely to yield positive social and economic returns
- Financially sustainable
- Can deliver positive benefits in the short-term, without foregoing the longer-term vision and commitment to sustainable change
- Deliver productive jobs, promoting agency in the population.

As discussed later, agriculture, fisheries, and tourism are likely to be the sectors which can most realistically deliver productive jobs widely across the country, overcoming the critical social and geographical fragmentation that characterises Timor-Leste. In doing so, learning from countries that are further along such transition, such as Rwanda, will be essential.

#### State fragility and economic development

Notwithstanding its progress, Timor-Leste is still, under certain lenses, a fragile context: it is highly vulnerable to economic and environmental shocks, suffers from a very weak private sector environment, security threats and violence still take place around electiontimes (although more and more sporadically). Despite large resources, state capacity remains weak in terms of service delivery, especially in remote areas. Since fragility is a complex syndrome of multiple, interlocking forces, sustaining progress is hard and requires multiple, tailored interventions.

Achieving higher standards of living for the population and higher incomes in both absolute and per capita terms has historically been associated with marked reductions in fragility levels. A central pillar to this is job creation by private sector firm as rapid expansion of productive jobs gradually stabilishes a society. Such jobs are created primarily by the modern firms in the private sector.

In fragile states, firms are scarce and people are stuck in low productivity jobs that leave them in poverty. Fragile states have few modern firms because these exist only where they can thrive. Without firms and jobs, societies will remain fragile because jobs are a critical ingredient for stabilising societies. Fortunately, this trap can be broken through development policies that deliver on job creation, as discussed below in greater detail.

#### The role of this report

This paper aims to inform government's strategic thinking on a long-term sustainable economic development vision and prioritisation of a set of key areas by providing practical policy interventions to consider. It also hopes to complement and support, rather than replace, existing strategy documents such as the Economic Recovery Plan (ERP), by providing policy strategies that draw heavily from academic research and comparable empirical evidence from other developing country contexts, from which relevant lessons and learnings can be sourced. It also provides a less high-level, generalised approach and a shorter-term horizon for policy advice than the country's National Sustainable Development Plan (SDP).

## **AGRICULTURE, FISHERIES, AND TOURISM** AS PIVOTAL SECTORS FOR CHANGE

Agriculture, fisheries, and tourism are the sectors which offer the most potential for sustainable growth and could drive economic diversification. In particular, the natural characteristics of the Timorese territory make it an optimal location for the production of high-premium spices. Thanks to its rich waters, the fisheries value chain, currently very small and unproductive, could be developed significantly. Additionally, the richness of its cultural and natural heritage makes it a promising location for the development of ecotourism. Ultimately, agriculture, fisheries, and tourism are sectors that can deliver jobs across the national territory. With job creation being a critical pillar of the government strategy and an important tool to build trust and overcome state fragility, it makes sense for these sectors to be prioritised.

Medium and large firms in the formal sector will be the main driving force of structural change. However, Timor-Leste's private sector currently falls short of what is needed to attract and support medium and large firms. Specifically:

- The private sector is mostly made up of small, informal firms. The productivity of formal firms is low and they underperform regional peers.
  - Low employment and productivity are driven by multiple elements, including burdensome and unclear regulations for starting and operating businesses, lack of confidence in consistent, transparent and fair application of the rule of law, low workers skills, crime, and poor access to finance and land.
- Political instability, corruption, poor access to credit, and unreliable electricity supply persist as key factors affecting poor firm performance, according to entrepreneurs.
- Domestic firms are not integrated into global export markets and, as of 2015, only 4.76% of all firms had internationally recognised quality certifications.
- Foreign Direct Investment (FDI) is scarce and mostly linked to government contracts, rather than the private sector economy. Large projects, such as the Heineken factory, created some jobs, but failed to realise more significant spillovers to the local economy.



#### Box 1

#### Policy steps to develop agriculture and fisheries

- 1. Develop sector-level plans in strategic agricultural sub-sectors. The 2019-2030 National Coffee Sector Development plan is a valuable initiative that should be replicated for other strategic agricultural products, especially high-premium spices and fisheries. Given the scarcity of information available on the state of sectors and their potential as export products, the government could commission studies mapping the current structure of value chains, and identifying strengths, bottlenecks, and policy initiatives to boost productivity and value addition.
- 2. Leverage technology to improve access to information for farmers as a way to improve productivity. With access to high-quality information and advice on what inputs to use, practices to adopt, and crop prices, farmers are more likely to make good business decisions and to enjoy higher bargaining power with buyers. Digital, mobile-based technologies represent a cost-effective method that is growing in popularity. Importantly, for this type of initiative to succeed, it is important to ensure that the information that is delivered is tailored, timely, innovative, and from reputable sources.
  - **a.** Indian cotton farmers benefited from a mobile phone-based service that provided agricultural advice via a toll-free hotline and sent weekly agricultural information on weather and crop prices. The impact of the service revealed high uptake rates, adoption of higher-quality farming practices, and higher yields.
- 3. Link farmers to global markets. One of the risks of producing for multinationals in sectors like coffee is that farmers might end up being paid very low prices, and thus face low incomes. To overcome this, evidence shows that strong contract enforcement from governments and (surprisingly) limits to international competition help:
  - a. The government of Costa Rica successfully established the National Coffee Institute (ICAFE) which represents and protects the interests of all players along the value chain and closely monitors the activity of coffee processors. Specifically, ICAFE tracks all transactions, registers contracts, and ensures that farmers are paid the agreed price.
  - b. In Colombia, the multinational Nestlé, through its Nespresso programme, became the only buyer for certain varieties of coffee. This created incentives for farmers to invest in quality upgrading so that their coffee would be shipped out of Colombia to be traded on international markets. Investment in product quality resulted in farmers being paid up to 10% higher prices for their produce.

- 4. Facilitate access to credit for small fishing firms and farmers. In line with general recommendations on private sector development, the agriculture and fisheries sectors are in dire need of funding to upgrade technology and equipment for small producers. Extending credit lines, with low collateral requirements, to these businesses can ease funding deficiencies.
  - Agriculture Organisation (FAO), introduced a microcredit programme for the development of the Northern Uplands of the country. The project aimed to reduce poverty and enhance local food security among poor upland ethnic communities through small-scale aquaculture development. The productivity of small-scale aquaculture in upland areas was increased through the development of appropriate aquaculture technology packages, the establishment of aquaculture extension services, improving local availability of fish feed, and a commune-managed credit and savings scheme.
  - **b.** In the Dominican Republic, ADOPEM offered one principal but highly flexible agricultural loan product, "agrocrédito", for funding both working capital and fixed assets and which allows for payment schedules based on each small-holder's preferences and payment capacity. The programme also included a value chain consolidation programme for high potential crops.



## **POLICY TOOLS TO DEVELOP KEY SECTORS**

The development trajectory that the agribusiness, fisheries, and tourism sectors should follow needs to be supported by efforts to:

- Promote domestic demand-led growth. This would especially include products that currently make up a large portion of Timor-Leste's import basket but could realistically be produced at home once enabling investments are undertaken, such as cereals, meat, dairy, and many varieties of fruits and vegetables. Serving local demand through domestic production will reduce import dependence, improve the trade balance, enhance food security, and create income-generating opportunities within Timor-Leste. Producing for the local economy gives firms an opportunity to learn, innovate, upgrade, and grow, possibly preparing them to produce successfully for regional or international markets at a later stage.
- Enhance export-led growth. Coffee, high-premium spices, and artisanal products could offer Timor-Leste a potential competitive advantage at a global scale, provided that their value chains are upgraded and expanded. In the field of tradable services, Timor-Leste's natural wealth, unique biodiversity and cultural heritage make it an ideal location for the development of eco-tourism in the aftermath of COVID-19. Higher exports will support macroeconomic growth, improving the trade balance and boosting foreign exchange earnings, while also supporting the growth, quality upgrading, skills building, and employment creation of domestic enterprises.

Moreover, for the private sector to grow and prosper, the government should pursue a strategy which focuses on two main policy goals: (i) addressing the obstacles that prevent domestic firms from performing better and growing, and (ii) devising strategies to attract more FDI and ensuring that it generates positive spillover effects on the local economy.

#### (i) Addressing barriers to growth in domestic small firms

Efforts to unlock domestic firm-level growth should focus on a number of areas, including developing infrastructure, skills, and the legal and regulatory framework. We discuss a few of these below, while recognising that is in not an exhaustive list:

Generating demand for firms' products by reducing transport costs (through improved infrastructure), connecting firms and households to markets, and by sharing information on product quality and prices with consumers and across producers. This, in turn, enhances competition and productivity, both at the firm and at the aggregate level.

- Improving the business environment by defining and simplifying regulations and clarifying their application. Access to credit could be improved, including through the use of collateral (notably land), consolidating the accounting systems of companies, and supporting financial training for business owners.
- Scaling up vocational training by certified institutions, targeted at strategic growth sectors of the economy, rather than relying on training happening within firms.
   This has demonstrated positive effects on workers' employment opportunities in developing countries.
- Expanding overseas training opportunities in high quality institutions.
- Investing in managerial upskilling. Firms in developing countries often lack businesspeople with sound managerial skills who are capable of managing risks and promoting innovation. Strong managerial skills appear to be even more important than improving the skills of low-skilled workers. Group-training programmes, peer interactions, and mentoring schemes have been identified as effective ways to improve managerial skills.
- Aligning educational curricula to labour market needs by promoting and expanding education in hospitality management, agri-business, agronomy, zoology, business management, and entrepreneurship.

#### (ii) Attracting FDI

Foreign Direct Invesment (FDI) can support developing countries to deepen their industrial capabilities, upgrade processes and product quality, and support economic diversification. These impacts carry over through direct and indirect mechanisms, including human capital and knowledge accumulation, intra-sector competition, and export portfolio upgrading.

Although attracting FDI is critical, FDI does not automatically generate economic spillovers to the domestic market. To achieve this, the government will need to adopt active policy tools to **ensure effective linkages are formed between foreign firms and the domestic market.** Tools to attract FDI and support linkages between foreign and domestic firms include:

1. Investment Promotion Agencies (IPAs) leverage their knowledge of the local market needs and opportunities to attract investors, provide them with high-quality support (e.g. relationship-building, matchmaking, branding, information sharing) and ad-hoc services. They reduce information barriers that could otherwise dissuade foreign investors from entering the domestic market. Additionally, IPAs often coordinate policies such as access to finance, reliable and affordable service provision, and

investment facilitation services. Since securing re-investment from existing investors is often easier (and more cost-effective from a resource commitment perspective) than attempting to bring new investors in, providing solid investment aftercare services is vital to retain and grow investments. This generally entails IPAs supporting investors to address challenges that may arise and advocating on their behalf with the government, which is based on continued relationships building between the IPA and companies.

- 2. Publicly available supplier databases offer information on the capabilities and characteristics of domestic firms available to foreign firms looking for local businesses to partner or transact with. The database should only include firms whose capabilities have been vetted, such as through requiring completion of certain standards checks to achieve "approved vendor" status. The database could support other policy objectives, such as encouraging formalisation by requiring that firms be formally registered in order to be included on the database or reducing tax evasion through greater oversight of firms' tax compliance records.
- 3. Special Economic Zones (SEZs) provide improved services and infrastructure to firms in a geographically defined area to overcome the country's broader weak enabling environment while nation-wide reforms are undertaken. To maximise effectiveness:
  - o SEZ strategies should align with national development priorities and aim to address specific market failures
  - The decision to establish an SEZ should be based on a careful cost-benefit analysis, bearing in mind alternative uses for the funding needed to establish SEZs
  - o SEZ should be strategically located near trade infrastructure and urban centres Strong integration between firms in SEZs and those in the rest of the economy is essential to maximise positive spillovers
  - A monitoring and evaluation unit should be established to track SEZ performance against targets and provide data to inform strategy and policy improvements
  - Provision of efficient and reasonably priced services within the SEZs, including utilities

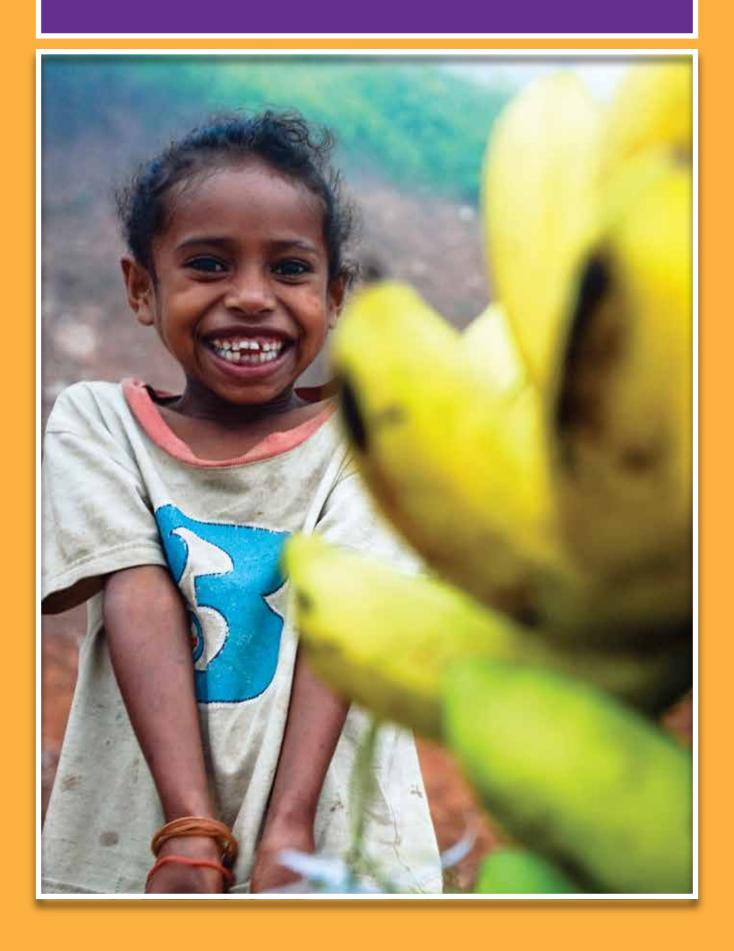
Importantly, evidence from foreign investors indicates that tax incentives are less of a determining factor in investment decisions than reliable and affordable services or effective trade facilitation support. For example, Rwanda favoured building a reliable business environment over providing large tax incentives as information from investors indicated that this would be more effective in attracting and retaining investors in the longer term. The Timorese government should be wary of using tax incentives: they result in lost revenue for the government while generally not being a key factor in investment decision-making.

#### Box 2

#### Policy steps to attract and retain FDI

- 1. Reduce reliance on tax incentives as a tool to attract FDI because they are generally not the determining factor in investors' decision and are very costly as well as carry a risk of incentivising short-lived investments. When used, it is vital that incentives are administered in a very transparent manner.
  - The Jordan Investment Commission has developed a user-friendly website which publishes all incentives available and procedures to apply for them.
  - To minimise discretion in the awarding of incentives from investment agencies, the governments of Costa Rica, Pakistan, and Sri Lanka have all created official legislation on practices and requirements for granting incentives.
- 2. Prioritise the creation of a reliable investment environment by (i) lowering the cost of doing business, through improving the provision of services such as utilities and streamlining procedures, and (ii) having transparent and enforced laws and regulations that protect and incentivise investors.
  - a. Myanmar's investment policy reform consisted of a new Investment Law (2016) reducing entry costs and barriers for foreign investors.
  - Rwanda made a conscious effort to focus on improving their World Bank b. Doing Business indicators as a benchmark to improve their investment environment. In 2017 they ranked 158 and currently rank at 38.
- 3. **Set up a high-quality and accessible IPA** to attract and retain investment from multinational companies. This requires staff to be trained and skilled, especially in relationship building and communicating with and supporting foreign companies.
  - a. Singapore's successful model is based on their investment agency prioritising relationship building with companies.
  - Ethiopia's reforms in 2017 led to a similar approach being adopted with a sector focus by the Ethiopian Investment Commission. Among other activities, the Commission stimulates supply chain development by hosting dialogue forums which bring together potential domestic and foreign business partners.
  - Rwanda started with an investment strategy that highlighted the type of C. investment they wanted to attract, which provided a great foundation.
- **Increase domestic capabilities.** The workforce must increase their productivity through education and obtaining technical and managerial know-how. This will provide investors with a ready workforce that can meet labour demands and support opportunities.

Rwanda made improving human capital a primary objective in their 2006 Investment Policy Reform, giving education a central role in building a long-term knowledge-based economy and attracting FDI.



# A FINANCING PLAN NEEDS TO ACCOMPANY THE GROWTH STRATEGY

Timor-Leste's growth strategy will only be viable if supported by effective and sustainable financing frameworks. The country has four main sources of finance to draw on:

- **Petroleum Fund –** Preserving sufficient revenues for future generations through sound public financial management is paramount. At the same time, the Fund provides a unique opportunity to kickstart growth now. To balance these considerations, withdrawals should be ear-marked for high-impact sectors and investments rather than used to fund recurrent government expenditure. Investments in key sectors, such as agribusiness, fisheries, tourism, or renewable energy infrastructure, could support job creation and enable long-term diversification away from oil dependence.
- **Domestic revenue –** Given Timor-Leste's extremely high levels of oil dependence. commitment to fiscal reform, particularly increasing domestic revenue mobilisation, is needed to grow the non-oil revenue base. This involves a comprehensive review of the current tax collection framework, rationalising or introducing tax categories as needed, as well as reforms to improve the efficiency of revenue collection processes. Developing the formal economy and broadening the tax base can be the most reliable strategy for long-term, sustainable revenue growth. Efforts to increase domestic revenue mobilisation must, however, go with efforts to support firm productivity and growth in the country. There is a window of opportunity for the country to do this now which may not be available in a few years.
- Development Finance Institutions (DFI) and private investment DFI presence in Timor-Leste is minimal (limited to World Bank's IFC, Credit Corporation and a few others) due to high commercial risk and the lack of large domestic firms to absorb DFI finance. Nevertheless, the government could advocate for greater DFI support, especially from regional institutions, including ASEAN members, by showcasing the country's potential, acting as a mediator between these institutions and potential pioneering investors, and requesting DFI technical assistance in reforms to improve the enabling environment.
- Remittances The diaspora community plays an increasingly important role in Timor-Leste by supporting livelihoods through remittances, which could be mobilised further to support economic development. The government should consider strategies that could maximise the development impact of remittances, such as offering innovative products and digital services to the diaspora, including transfers by mobile money and diaspora funds, which channel remittances towards strategic investments. For example, analysis in El Salvador showed that a matching product, which enabled migrants to fund education for children in their home country, increased education expenditure and private school attendance. In Ecuador, Banco Solidario has provided remittance-related financial innovations, such as credit products for emigrant families sending remittances, to support investments in microenterprises, education and other key areas.

#### Box 3

## Policy steps to maximise the development impact of oil wealth

- Strengthen regulatory frameworks. The Petroleum Fund is the main asset which can finance Timor-Leste's economic transformation. Hence, commitment to both its preservation and its strategic use is paramount. Measures to limit the size of withdrawals at each financing cycle and earmarking funds withdrawals to specific spending categories should be explored.
  - The government of Ghana manages its oil wealth through two key funds, each with a specific mandate: the Ghana Infrastructure Investment Fund oversees infrastructure development; the Ghana Petroleum Funds, namely the Stabilisation Fund and the Heritage Fund, whose goals are to provide budgetary support in times of low revenue capacity and to preserve wealth for future generations. Each fund operates under specific regulation and management strategies consistent with their respective objectives.
- 2. Leverage the Fund to diversify financing options. The security provided by the Fund allows the government to realistically explore innovative financing options as a way to expand its fiscal space and diversify its debt portfolio. This could include issuing Timor-Leste's first sovereign bond, especially if this is done in sustainability-oriented sectors.
  - In 2020, Bhutan announced its first sovereign bond to support the economic recovery from the Covid-19 pandemic while diversifying financial sources. This was a major step to independently finance Bhutan's fiscal requirements by reducing reliance on overseas development assistance and concessional loans. The issuance saw the participation of financial institutions, non-bank institutions such as pension and insurance companies, and civil society organisations.
- 3. Adopt an effective communication strategy. If Fund revenues are clearly earmarked for certain development projects, these should be branded and communicated as such to the public via government websites and mainstream media. Channels for feedback and public scrutiny would also be needed.



## LEVERAGING INFRASTRUCTURE **AND DIGITAL TECHNOLOGIES**

Sectoral transformation and private sector development need to be supported by a reliable and modern supply of physical and soft infrastructure. Investment decisions should prioritise basic, multipurpose and connective infrastructure which supports access to markets, productivity, and income generation. Efforts should focus on:

- Well-functioning agricultural markets, especially in rural areas
- Road construction and, critically, ongoing maintenance
- Improving international airport standards and flight connectivity
- Developing strategically located modern seaports, but avoiding unnecessary duplicates
- Enhancing the reliability of electricity supply
- Expanding high-speed internet connectivity

Additionally, digital innovation offers the opportunity to leapfrog technological stages, allowing countries to make greater gains more quickly. Key aspects include:

- **Developing a national digital strategy**, championed by policymakers with strong political clout, which will guide the economy's transition towards broad-based adoption of digital technology. The strategy should be inclusive and set clear time-bound objectives and commitments in areas of human capacity, service delivery, and local entrepreneurship.
- **Investing in skills and knowledge** to ensure that citizens can reap benefits from technological innovation by improving their livelihoods and contributing to productivity gains across the economy. This requires updating educational curricula and retraining the current workforce in digital technologies needed in strategic sectors.
- Supporting infrastructure is needed for digitally-led development to take place, including reliable and affordable electricity and telecommunications, and high-speed internet networks in both rural and urban areas.
- Inclusivity should be promoted through policies, business models, and investments, so that marginalised groups can take advantage of such developments.



#### Box 4

#### Policy steps to enhance digitalisation

- 1. Leverage regional partnerships to develop digital infrastructure, given the common challenges that islands in the Pacific and Southeast Asia share. Regional platforms might prove more effective to attract funding from multilaterals and private capital (for example, via public-private partnerships) than if Timor-Leste acted alone.
- 2. Government as the innovator. In a context of limited digital dynamism in the private sector space, the government should pioneer digital innovations which firms replicate.
  - Establish a government agency, led by a champion with political clout, to lead on a digital economy strategy that covers e-government and infrastructure, as well as supports the private sector and its ability to trade and produce better.
  - Digitise services where the likelihood of adoption by people and the value of efficiency gains and returns on investment are highest, such as business licensing or cash transfer delivery. The ability to demonstrate socio-economic returns from these investments can also unlock further funding support.
    - a. In Rwanda, hospital waiting times for blood supplies were reduced from four hours to 45 minutes thanks to a system that combines instant online ordering with drone-based delivery.
  - Government agencies can sometimes resist adopting new technologies as civil servants face little incentives to transform their practices, and this may make the incremental introduction of digital services ineffective. In selected areas, replacing paper-based systems with digital ones in a single change might be preferred.
    - a. The Central Bank of Tanzania, under former governor Benno Ndulu, stopped accepting paper-based documentation from the Ministry of Finance, making it mandatory for all transactions to be carried out electronically. While the decision was met with resistance, it eventually led to sustained change.
- a. Invest in digital platforms which are easy and intuitive to use and in heavy piloting which can help refine products and identify problems before digital services are rolled out to the population.
  - In Kenya, piloting of Safaricom's M-PESA platform resulted in the product being changed from a loan repayment mechanism to a mobile money transfer service, initially designed to enable sending domestic remittances but later growing into a platform with multiple mobile transfer, payment, and loan products for individuals and firms.

- 3. Strategically build digital skills. People will adopt technology if they see value in doing so. Rather than relying on generalised training courses, the government should promote technology adoption in areas that will enhance people's productivity and incomes, and these gains should be demonstrated. In Timor-Leste, technological innovation in strategic sectors of the economy such as agriculture and tourism may have the greatest impact.
  - Government agencies should demonstrate to workers the financial gains that could come from joining hospitality platforms such as Airbnb or e-commerce platforms such as Facebook Marketplace, showing the impact it has had on incomes in comparable countries. Government policies should also be forward-looking to ensure benefits of technological inflows are absorbed.
    - The expansion of Uber, a transport mobility app, in Africa improved digital skills of drivers. Uber loaned drivers the smartphones needed to carry out their services. The government of Timor-Leste could target similar multinational companies.
    - In China's rural villages, the widespread adoption of e-commerce platform Taobao effectively connected sellers to buyers, widening market access for rural producers, including for traditional products and perishable commodities. Taobao enterprises made 80% higher revenues than other businesses.





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