COVID-19 AND THE FUTURE OF ENERGY IN THE ASIA- PACIFIC: Building Back Better







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This report published without formal editing.

Acknowledgement

This report was developed by the Energy Division of ESCAP under the overall direction and guidance of Hongpeng Liu, Director and Michael Williamson, Section Chief.

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Mitchell Hsieh, Katie Elles, Kavita Sukanandan, Christophe Manshoven, Sompot Suphutthamongkhon and Chavalit Boonthanom of the ESCAP Communications and Knowledge Management Section, coordinated the dissemination of the report.

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The COVID-19 pandemic that emerged early in 2020 has led to multiple impacts across societies and economies. Analyzing the impact on the energy sector was equally as critical as analyzing the economic sector, as COVID-19 unleashed major impacts across the energy domain. Among the major energy demand areas, only the residential and building sectors showed an increase in energy consumption across the Asia-Pacific region during COVID-19, mainly due to the imposed lockdowns and work from home strategies. For the industrial, transport, and commercial sectors there was an average decrease in energy demand of around 10 per cent, 8 per cent, and 7 per cent respectively. By contrast, residential energy demand showed an average annual expected increase of 4.5 per cent.

The COVID-19 pandemic has also affected the energy supply sector of each country by halting the upcoming generation plants, which has been modelled separately based on the national capacity building plans of each country and what renewable sources are most suitable depending on their potential in specific country and the associated cost parameters.

Emissions of each country also showed a similar pattern as of energy demand. However, it should be noted that this environmental emission drop as well as the reduction in demand are in no way a sign of green economy but rather pose an opportunity to build back better. Emissions will be lower in the event of a slow recovery, but a weaker economy also drains momentum from the process of change in the energy sector. Hence, a low economic growth of any country is not a low-emissions strategy.

This report seeks to provide useful insights for energy policymakers, to enrich discussions and pave a way forward for the post-COVID-19 energy transition. It presents analysis based on an extensive literature, expert opinions, and energy modeling to examine gaps and further efforts to accelerate the pace of change, and drive the way for equitable, inclusive, and resilient economies the Asia and the Pacific. It models three countries in detail – Pakistan, Fiji and Lao People's Democratic Republic – to evaluate the potential energy sector response under a range of scenarios during and after recovery from the pandemic and provide an indication of implications across the region.

This study examines three countries in detail – Pakistan, Fiji, and Lao People's Democratic Republic –through a long term energy alternatives planning (LEAP) model that is based on three different scenarios of economic response to COVID-19. The results obtained from the study indicates that a 'green' economic recovery with stimulus targeted toward sustainable energy would save up to 6.25 per cent, 7.06 per cent, and 10 per cent emissions for Pakistan,

Fiji, and Lao People's Democratic Republic respectively in 2035. This picture provides an insight into the opportunities that economies are facing in the years to come.

Beyond the economics, and considering the Asia-Pacific region's large contribution to total global GHG emissions, the environmental outlook will be very different depending on the efforts to recover from the crisis using green recovery initiatives and financing.

A sustainable outcome will require a larger investment into the energy sector, both on the demand and supply sides. Initially, investment needs will increase each year due to increases in energy demand and constantly increasing infrastructure cost. Even a post-COVID Business-as-Usual scenario would require investments of \$108 billion, \$1.72 billion, and \$6.7 billion in Pakistan, Fiji, and Lao People's Democratic Republic respectively in 2030. For achieving targets for a green recovery scenario, these countries would require a total of \$120 billion, \$2 billion and \$7.7 billion respectively.

This additional investment must be provided by the governments in the form of green stimulus or green recovery packages, or by the private sector. For example, in 2030, for a green recovery scenario, Pakistan will require an additional \$12 billion, or around 2.4 per cent of GDP.

As we emerge from the pandemic and make plans to "Build Back Better", this report makes five key recommendations for policymakers to consider in their response:

- Clean infrastructure investment in renewable energy, storage, EVs, grid modernization and cross border interconnection should be enhanced. Other priority areas of investment include:
 - building energy efficiency renovations and retrofits including improved insulation and efficient heating and cooling;
 - education and training to address immediate unemployment from COVID-19 and structural shifts from decarbonization;

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