

## What is Nationally Determined Contribution?

Nationally Determined Contribution (NDC) is a national climate plan highlighting a country's climate actions, including its climate-related targets, policies and measures, that it aims to implement in response to climate change and global climate action. The NDC embodies the efforts by a country to reduce national greenhouse gas emissions and adapt to the impacts of climate change. It is at the heart of the Paris Agreement and the achievement of its long-term goals.

The Paris Agreement requires that each Party to the United Nations Framework

Convention on Climate Change (UNFCCC) prepare, update and communicate its Nationally Determined Contribution (NDC) declaring the actions it plans to undertake to combat climate change, especially to reduce its greenhouse gas emissions.

Till date, all 193 Parties to the Paris Agreement have issued their first NDC and 151 parties submitted a new or updated NDC. These countries have to review their NDC every five years.

## Nepal's Nationally Determined Contribution

Nepal submitted its first Nationally Determined Contribution (NDC) to the UNFCCC in February 2016. A second,

updated (enhanced) NDC was submitted in December 2020. According to its second NDC, one of the country's major targets is to achieve 'net-zero emission' by 2050<sup>1</sup>. To reach this goal, the country plans to focus on reducing carbon emissions on different sectors, such as: energy; transport; residential cooking; industrial processes and product Use (IPPU); agriculture, forestry and other land use (AFOLU); and waste.

The estimated cost of achieving Nepal's NDC's conditional<sup>2</sup> mitigation targets is estimated to be USD 25 billion. The cost of achieving unconditional targets outlined in the NDC is estimated to be USD 3.4 billion.

The key targets of these sectors are as listed below:

### Energy



- By 2030, expand clean energy generation from approximately 1,400 MW to 15,000 MW, of which 5-10 % will be generated from mini- and micro-hydro power, solar, wind and bio-energy. Of this, 5,000 MW is an unconditional target.
- By 2030, ensure 15% of total energy demand is supplied from clean energy sources.

### Transport



- Sales of electric vehicles (e-vehicles) in 2025 will be 25% of all private passenger vehicle sales, including two-wheelers, and 20% of all four-wheeler public passenger vehicle sales in 2025. (The public passenger vehicle target does not take into account electric-rickshaws and electric-tempo.)
- By 2030, sales of e-vehicles will cover 90% of all private passenger vehicle sales, including two-wheelers, and 60% of all four-wheeler public passenger vehicle sales.
- By 2030, develop 200 km of electric rail network to support public commuting and mass transportation of goods.

### Residential Cooking & Biogas



- By 2030, ensure 25% of households use electric stoves as their primary mode of cooking.
- By 2025, install 500,000 improved cook stoves, specifically in rural areas.
- By 2025, install additional 200,000 household biogas plants and 500 large scale biogas plants (institutional/ industrial/ municipal/ community).

### Agriculture, Forestry & Other Land Use (AFOLU):



- By 2030, maintain 45% of the total area of the country under forest cover (including other wooded land limited to less than 4%).
- By 2030, manage 50% of the Tarai and Inner Tarai forests and 25% of middle hills and mountain forests sustainably. This can be done by including the use of funding from REDD+ initiatives.

### Waste



- By 2025, 380 million litres/day of wastewater will be treated before being discharged, and 60,000 cubic meters/year of faecal sludge will be managed.

### Industrial Processes and Product Use (IPPU)



- By 2030, adopt low emission technologies in brick and cement industries to reduce coal consumption and air pollution, including through the development and/or enactment of emission 7 standards.
- By 2025, formulate guidelines and establish mechanisms to monitor emissions from large industries.

<sup>1</sup> It was later revised to 2045. Nepal's Long-term Strategy for Net-zero Emissions targets to achieve net-zero emission by the year 2045.

<sup>2</sup> Conditional Target; what countries could implement with the help from other different nation. Unconditional Target; what countries could implement based on their own resources and capabilities.

## NDC's Tracking (Targets versus Progress)

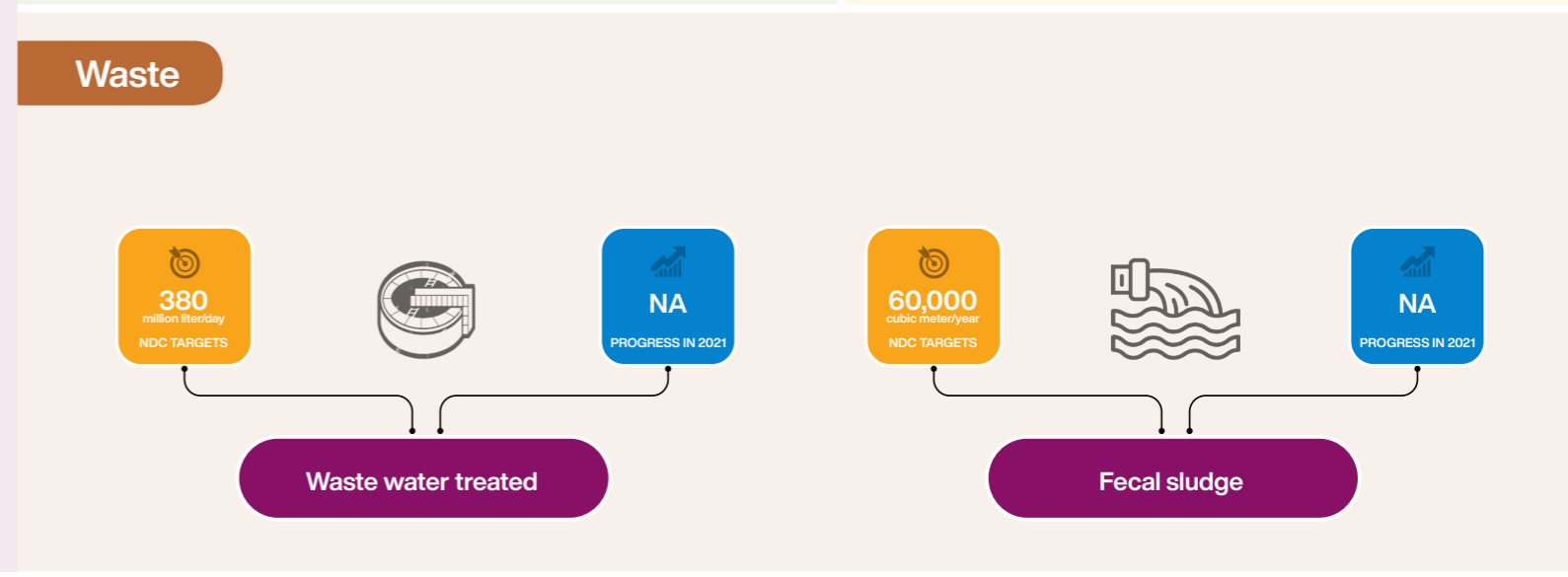
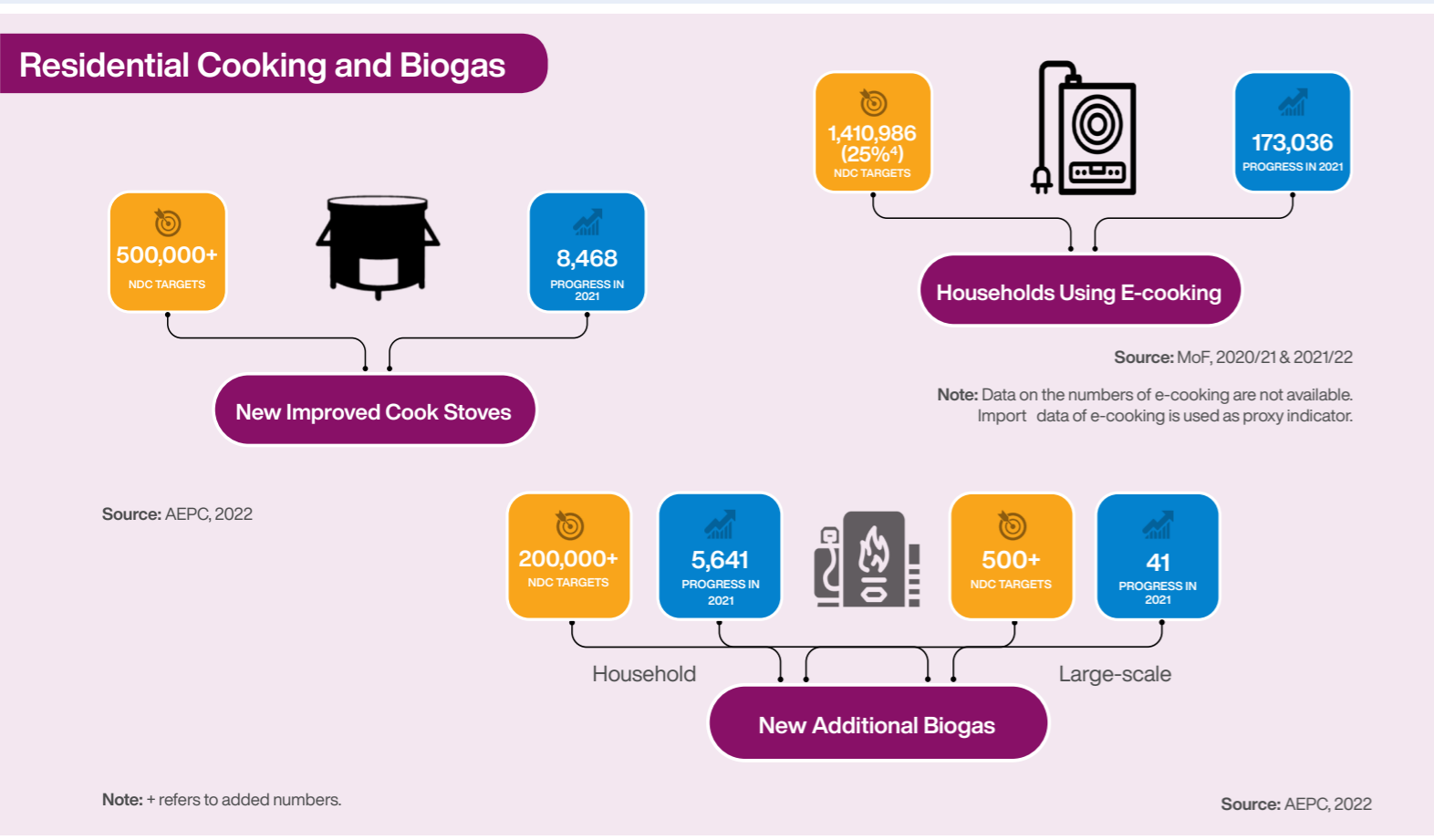
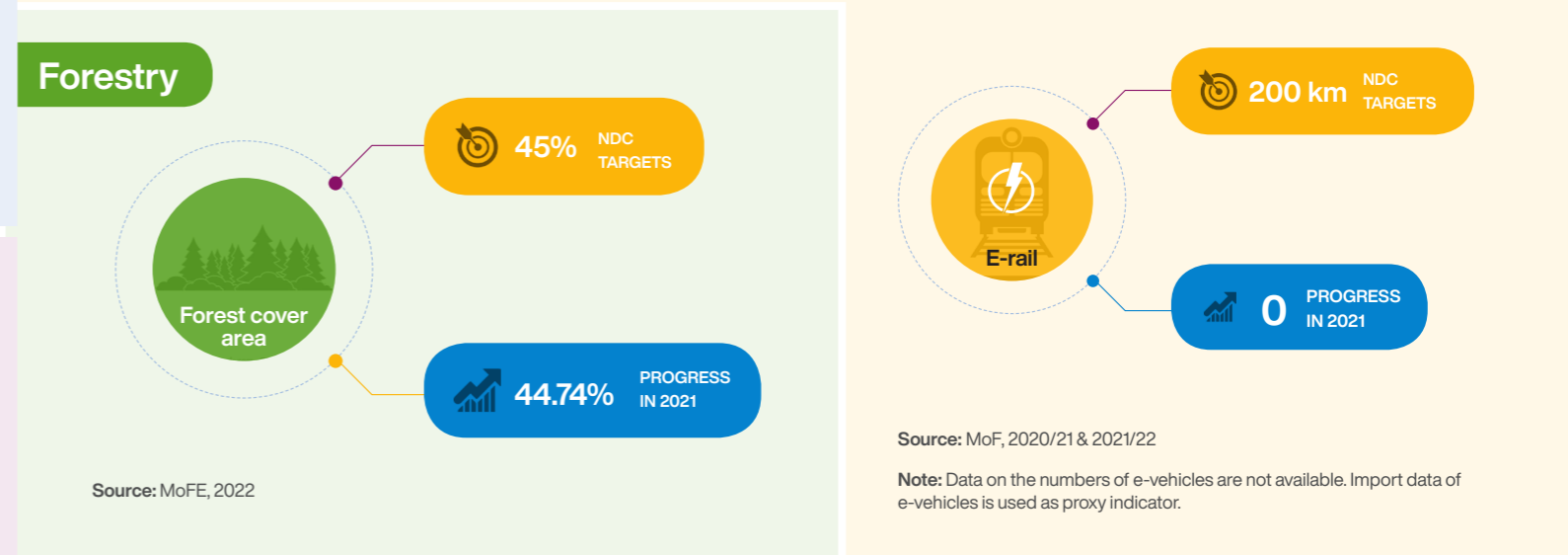
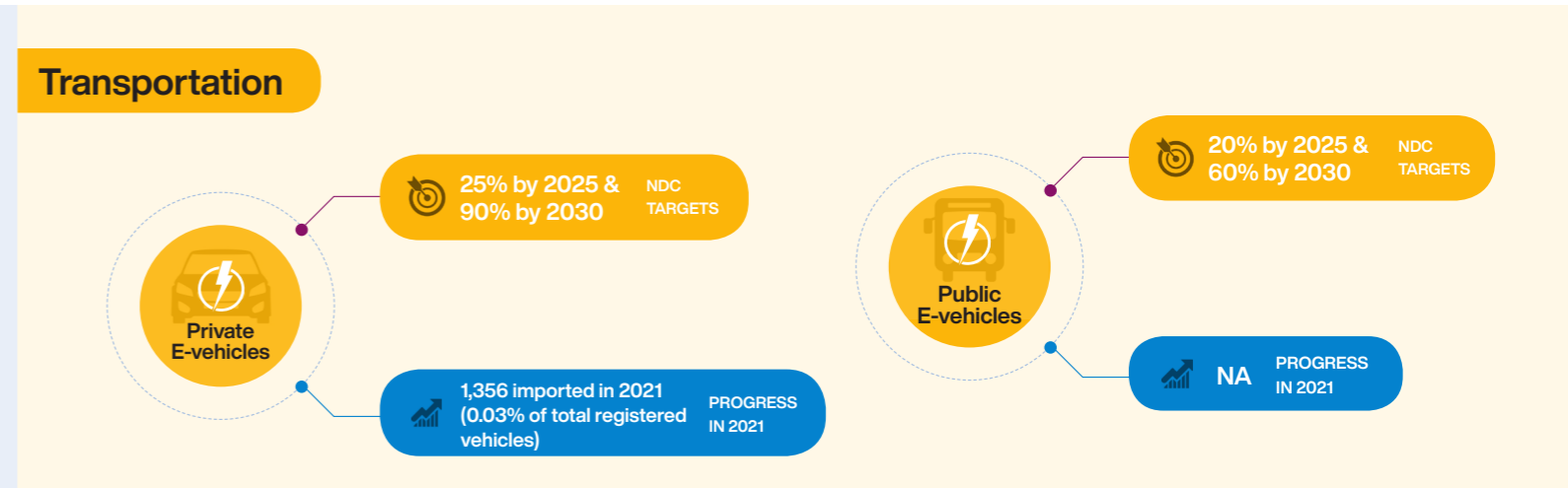
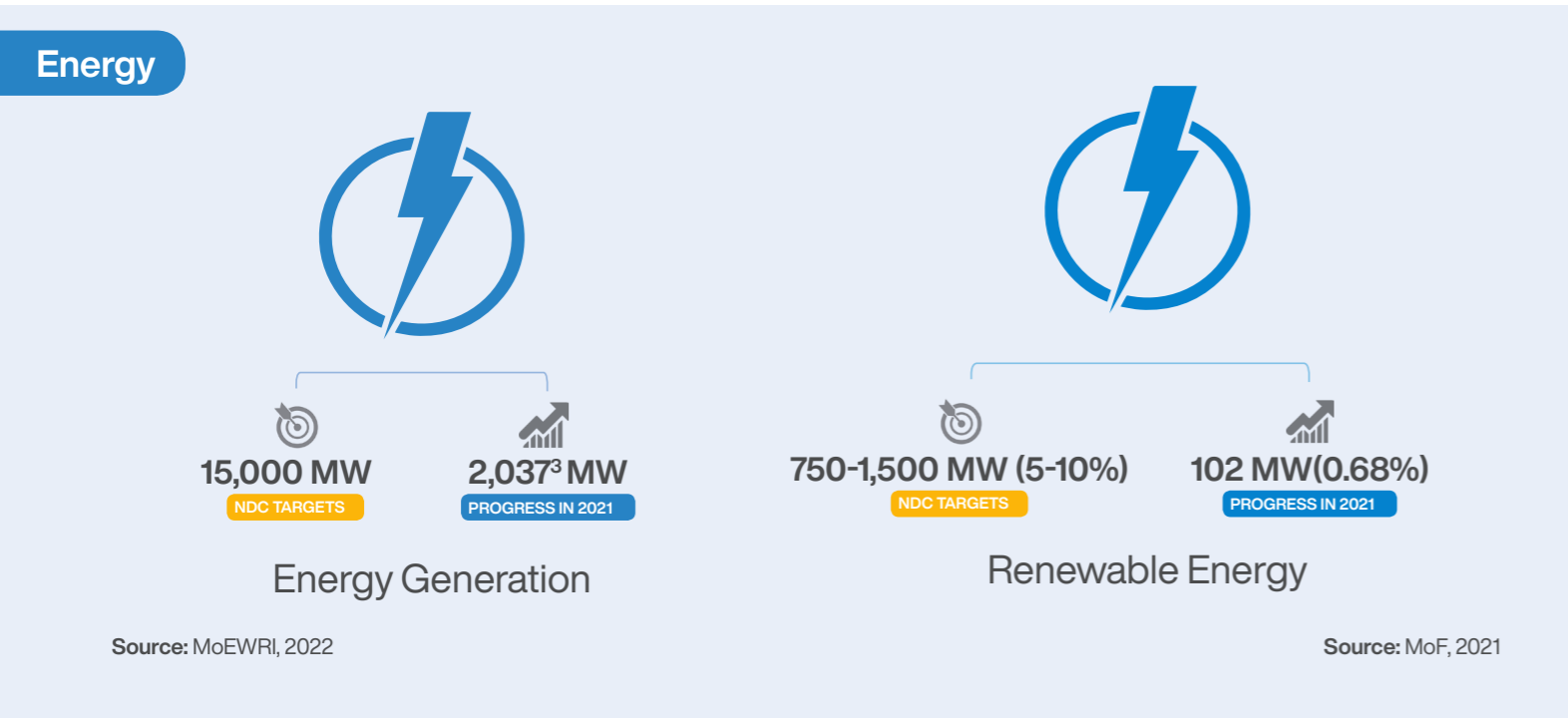
By submitting its second NDC in 2020, Nepal fulfilled its international pledge in taking global climate action. Already, Nepal has completed 1.5 years of the implementation of NDC and it is important that it live up to the commitment and achieve the targets within the specified time.

To ensure the Nepal government stays on course to meet its targets, Prakriti Resources Centre (PRC) is committed to track the NDC progress every year to keep

the government of Nepal and other stakeholders informed. It is important to track the progress made to ensure effective and timely implementation of its NDCs. This will not only enhance accountability but also increase transparency on NDC implementation and build confidence in the country.

This document has tracked the progress made by Nepal in implementing the NDC in 2021. To draft this document, data has been derived from the Economic Survey of 2020/21,

published by the Ministry of Finance, and publications of Alternative Energy Promotion Centre (AEPCC). Information from secondary data sources, such as websites and reports of relevant agencies of Government of Nepal, have also been assessed. For the few sectors where data was not readily available, data derived from the Department of Customs have been used as proxy.



3 Till October 2022, total energy generation is 2,180,635 MW

4 In the National Census 2021 total number of household is 5,643,945.

Upon assessing the data, the progress on NDC in the first year of implementation is not very encouraging. While Nepal has achieved its forest cover area target, the progress in other sectors and sub sectors is not significant.

Last year saw a policy shift for the promotion of e-cooking and e-vehicles, but this change in policy is yet to be translated in actual numbers. However, if the policy priorities continues, in the coming years, this can bring significant change in achieving the NDC targets on e-cooking and e-vehicles. The actual number of e-cooking stoves and e-vehicles are not available. The research used import data of e-cooking stoves and e-vehicles in 2021 as proxy.

The progress on energy is not very encouraging. Although several hydro projects are near completion and additional hydropower projects will be completed soon, they will most likely not be able to generate the target of 15,000 MW by 2030.

Data availability has been a constant challenge. Data on waste, e-vehicles and e-cooking are not readily available. Different sources provide different numbers. Finding a reliable data source and the latest data has been another challenge in finalizing this paper. A database that provides the updated data on NDC target progress will be handy to track the NDC implementation.

## References

- AEPC. (2022). *Progress at a Glance: Year in Review FY 2078/79 (2021/22)*. Alternative Energy Promotion Centre, the Government of Nepal.
- CBS. (2022). *Preliminary Report of National Population Census 2021*. The Government of Nepal.
- GoN. (2020). *Second Nationally Determined Contribution*. The Government of Nepal.
- MoEWRI. (2022). Retrieved from Department of Electricity Development: <http://www.doed.gov.np/>
- MoF. (2020/21 & 2021/22). Retrieved from Department of Customs: <https://www.customs.gov.np/page/statistics>
- MoF. (2021). *Economic Survey 2020/21*. The Government of Nepal.
- MoFE. (2022). *Annual Report Fiscal Year 2077/78*. REDD Implementation Center, Ministry of Forests and Environment, the Government of Nepal.
- Singh, P.M., & Khadka, M. (2020). *Nationally Determined Contribution in Nepal*. Kathmandu: Prakriti Resources Centre.

**Data Collected and Prepared By:** Pragya Sherchan & Rachana Poudel

### Disclaimer

Data in this paper are derived from published secondary sources. The sources are well cited. Any part of this publication may be cited or utilized in any form- electronic or mechanical including photocopying for information storage purpose without prior permission of Prakriti Resources Centre (PRC) provided the source is duly acknowledged.

