



# Summary policy brief on low carbon competitiveness in Nepal

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The Nepal Trade Integration Strategy 2010 identified the expansion of trade as one of the key drivers of inclusive growth in Nepal going forward. This, and the more recent Immediate Action Plan on Economic Development and Prosperity published in 2012, set out a number of policies to promote export competitiveness and growth. The success of these policies will depend to a large extent on the global trade patterns shaping the opportunities that Nepal faces.

Our analysis suggests that over the next ten years, climate change, international mitigation, and natural resource scarcity will transform global trade patterns, and result in an inevitable shift over time to a low carbon global economy. What will this look like? What impact will it have on Nepal's competitiveness and growth? What threats and opportunities will it create? And how should policymakers and businesses respond?

Our analysis suggests that:

1. Increasing natural resource scarcity – particularly relating to energy, land and water, and partly driven by economic growth in the emerging economies – could result in:
  - Higher energy prices, reducing the competitiveness of energy-intensive industries in oil importing countries like Nepal.
  - Increased global competition for water and land (including forest areas), which is likely to boost the returns to land assets and agricultural production, but also increase pressure on already stretched resources.
2. Mitigation policies introduced at the global level or by trading partners are likely to affect export opportunities and import prices faced by Nepal. For example:
  - Requirements for carbon footprinting of products and imports, as currently being discussed in the EU for example, or voluntary sustainability ratings for services such as tourism, could jeopardise competitiveness for energy-intensive or uncertified products and services;
  - carbon taxation in richer countries could lead to energy-intensive industries shifting to non-mitigating countries, generating economic opportunities but also undermining the potential to achieve low carbon growth;
  - Increased climate finance may become available to support the development of new green industries such as renewables (most likely from public funding sources in the short term, given the slow development of carbon markets), but may be targeted at countries who can demonstrate a low carbon growth trajectory.
3. The impact of climate change will be significant for some sectors - for example:
  - It will reduce yields and productivity of certain agricultural crops and forest products, undermining competitiveness.
  - It will reduce the reliability of hydropower as a source of energy - on which Nepal is currently heavily reliant – with important ramifications for industrial development and efficiency.

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This report examines how these issues could play out in Nepal over the next decade, particularly focusing on the energy, forestry and tourism sectors. It identifies opportunities and threats to Nepal's competitiveness and growth, and discusses possible policy responses.

## The energy sector

The availability and reliability of energy, especially electricity, are major constraints on competitiveness, growth and living standards in Nepal. Yet the potential to develop hydropower and other renewable energy sources is substantial. Many opportunities for investment have been identified, but their development is hampered by a poor investment climate and weak institutional mechanisms and governance.

A diversified energy mix is required, potentially through the development of solar PV and wind energy in addition to hydropower, as too much reliance on hydropower could undermine resilience, given the impact of climate change on hydropower generation capacity.

Almost all of the fossil fuels used within Nepal are imported, and diesel and LPG are subsidised. But financial constraints undermine the ability of the Nepal Oil Corporation to ensure supplies and to invest in distribution infrastructure to meet growing demand. Subsidising fuel disincentivises renewable energy investment and energy-efficiency measures by companies, which will undermine competitiveness in a future carbon constrained global economy. In addition, rising energy prices will make subsidising diesel and LPG less affordable over time, exacerbating public finance problems.

There are many economic opportunities that could be explored relating to potential new markets for biogas and biofuels. In addition, there is much scope to undertake energy-efficiency measures, which could significantly improve the competitiveness of Nepal's industries. Such measures have generated substantial savings in other countries that have taken a more proactive approach to incentivising the private sector through energy audits and regulation.

### Possible policy responses:

1. Remove subsidies on LPG and diesel to improve future competitiveness, and find mechanisms to further incentivise industrial energy efficiency – for example, through regulation, awards, demonstration projects, or enhanced access to finance to cover upfront costs.
2. Strengthen and encourage investment in renewables and innovative ways to access electricity to improve competitiveness in the long term. Investment in hydropower should be balanced by some diversification of energy sources to increase resilience to climate change impacts. Consider a greater focus on small hydro, which would spread the risk by having more dispersed sites for power generation.
3. Support the development of commercial biogas production through an appropriate investment climate and regulatory framework, and through mechanisms to support access to finance, to overcome upfront costs. Encourage foreign investment to bring capital and technology.

## The forestry sector

The unsustainable exploitation of forests can undermine growth and competitiveness in the future, by jeopardising forest-dependent livelihoods and depleting natural assets. Stronger incentives to protect the forest can be created by developing sectors that rely on sustainable forest management, such as ecotourism, and products with export potential such as medicinal and aromatic plants.

The introduction of community forestry management has successfully reduced deforestation and yielded economic benefits for participating communities. However, the model is facing some implementation challenges and further reforms could potentially help to improve its impact.

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Exploitation of Nepal's forests still continues in an uncontrolled fashion in many areas. Forests inevitably compete with other land uses, including agricultural production, settlement, and infrastructure development. Logging continues in light of lucrative domestic and export markets for both timber and fuel wood. Some of these processes are part and parcel of development, and some degree of forest exploitation is inevitable and indeed desirable in a growing economy. Infrastructure development and firewood availability are important for the wider competitiveness of the national economy. However, it is clear that a balance needs to be struck between competing national development priorities.

One part of the solution to unsustainable forest use is appropriate forest management at the national level, and better enforcement of existing laws and regulations. But another part is creating stronger economic incentives to protect the forest, by facilitating the development of alternative livelihoods that are consistent with forest conservation. Community forest user groups are one way to achieve this, as they have relatively strong incentives to identify and develop livelihoods based on sustainable forest use. Private management of forest resources, along with an appropriate incentive mechanism and regulatory framework, could also provide a possible model for more sustainable forest management that would potentially help to commercialise the forest sector further.

Forest-dependent livelihoods can be based on sustainable harvesting of timber or fuel wood, or of non-timber forest products, particularly those in which Nepal has a significant competitive advantage, such as medicinal and aromatic plants. There appears to be considerable scope to develop these markets further and to develop Nepal's export competitiveness and manufacturing base on the back of these products in a way that also contributes to sustainable forest management. However, there are many challenges to be overcome relating to standards and certification, marketing and branding, labour supply, and the investment climate.

#### **Possible policy responses:**

1. Implement multi-stakeholder processes to develop a joined up strategy for forest management that balances competing national development priorities, and focuses on creating livelihoods that are based on sustainable forest management and that contribute to ongoing competitiveness and long-term growth.
2. Continue to expand community forestry and undertake reforms to improve implementation. Help build sustainable livelihoods for community forest user groups, by supporting their attainment of Forestry Stewardship Council certification for example, and by helping them to benefit from ecotourism opportunities.
3. Explore the potential for increased commercial development of the forest sector through the implementation of leasehold forestry as set out in the Immediate Action Plan on Economic Development and Prosperity (2012), ensuring that long-term sustainability considerations are taken into account, and that a strong regulatory framework is in place.
4. Through public-private dialogue, identify and devise a strategy to sustainably develop non-timber forest product markets in which Nepal has a potential competitive advantage; for example, by putting in place the necessary market institutions, such as standards and certification mechanisms, and tackling barriers to moving up the value chain.

## **The tourism sector**

Nepal has substantial natural assets and has benefited significantly from the fast growth of tourism in the last 10 years, and there is much potential for further growth in the industry. However, appropriate management of natural resources and sensitive, well-regulated infrastructure development are required to ensure that the growth of the tourism industry (and the value of the natural assets upon which it depends) is not undermined over time.

There is potential to develop the ecotourism sector further, which could help Nepal to take advantage of – and at the same time preserve – its natural assets, such as forests, water and wildlife. However, a balance must be struck

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between developing the needed tourism infrastructure and maintaining the environmental assets that attract tourists in the first place.

Increasing international emphasis on environmental credentials within the tourism industry is inevitable going forward, and will reward those tourism destinations that are perceived as relatively green. Thus, establishing Nepal's brand as a green tourism destination could be an important source of competitive advantage for the future.

Within that context, investment in renewable energy and energy-efficiency measures by hotels can provide both cost advantages and reputational benefits. However, there appears to be less general awareness about these issues within the tourism industry in Nepal than there is within some other countries.

The tourism industry itself has an interest in developing a sustainable and environmentally conscious sector, and in protecting the natural environment, and therefore can act as an important advocate of green growth policies. Thus, there are many potential synergies between developing a competitive and sustainable tourism sector, and promoting sustainable and inclusive growth.

### **Possible policy responses:**

1. Develop a coordinated strategy for tourism development, involving all relevant Ministries and stakeholders, to balance competing interests with regard to natural resource management and infrastructure development, and to establish a regulatory framework that supports a sustainable, competitive tourism industry.
2. Promote the synergies between tourism development and sustainable growth by establishing Nepal's brand as a green tourism destination and thus creating a competitive advantage. To complement this, introduce and strengthen standards, labels, and award schemes that reward green credentials in the tourism industry, including for example the international Travelife Award scheme. Consider supporting targeted marketing to environmentally conscious, high-value tourists.
3. Collaborate with the tourism industry in supporting initiatives to promote a clean, attractive environment, and raise awareness about the competitiveness benefits of energy efficiency and renewable energy usage.
4. Identify opportunities for using climate finance to support the development of a green tourism sector, for example by supporting energy audits or the introduction of green energy by hotels, or by supporting ecotourism projects as a way to promote sustainable forest management.

