**Roadmap for decarbonisation**

BY ALI TAUQEER SHEIK H 2021-02-20

PRIME MINISTER Imran Khan has set the direction of Pakistan`s pathway to decarbonising the country`s economy. In his speech in December 2021 at the UN hosted Climate Ambition Summit, he declared that Pakistan will generate 60pc of its energy f rom renewable sources, ensure that 30pc of new vehicles will be electric vehicles and that Pakistan will no longer pursue coal power plants.

These broad pronouncements can guide the country`s roadmap for decarbonisation.

As climate-induced extreme events have brought the world to the climate tipping point, disruptive technologies have given a new momentum to global ef forts to achieve carbon neutrality by mid-century.

This transition is led now by China, the EU, UK and the US under the Biden administration. They have all begun to set ambitious targets and have also elevated climate change as a national security threat, made it a central plank of foreign policy, and increased investments in decarbonising their economies. In a surprise move, China and the US have even agreed to delink their cooperation on climate change from their otherwise complex relations marred by the future of Hong Kong, human rights and trade disputes.

The argument for decarbonisation is driven by the learning that higher economic growth rate can be achieved without proportionately increasing carbon emissions. In fact, the opposite has been witnessed in several countries: reducing carbon emissions accelerates economic growth, attracts private sector investments, promotes startups and entrepreneurs, and creates new jobs, particularly in the small and medium enterprises. The number of jobs created by renewable energy in China and India is mind-boggling and there is no reason to think that it cannot create green jobs in Pakistan as well. Post Covid-19 stimulus packages around the world are being designed to make recovery climate-smart and inclusive in order to ensure just transition.

How can Pakistan traverse its journey towards decarbonisation? Can there be a long-term strategy? Can Pakistan`s National Climate Change Policy and Nationally Determined Contributions, both presently being revised, reflect the prime minister`s vision? We will first need to recognise thatthe fossil fuel industry has no future in Pakistan, as elsewhere in the world. A cursory look at the membership of the Overseas Investors Chamber of Commerce and Industry will show that the number of oil and gas sector members has stagnated and, in fact,barringahandful,noone hasoverthe decades invested or expanded their operations in the country, while scores of renewable energy companies have mushroomed nationally and some have been noted globally for their growth.

Regrettably, sweet deals to IPPs have made them lazy rent-seekers. Unless the energy generation mix is fundamentally changed and the share of renewable energy substantially increased, these companies will continue to pose a dual existential threat: mounting circular debt and higher emissions endangering human health. Pakistan can potentially come out of this bind by shedding the state-led monopolistic model in favour of an open, `competitive, multiplayer market` led by the private sector, as Sakib Sherani recently argued in this space (`Power sector challenges`). It`s time to decide how the subsidies lavished on the fossil fuelindustry can be shifted to renewable energy for a level-playing field and to spur a new climate economy.

The prices in solar and wind have come steeply down, and it was possible primarily because of China`s lead in investing and scaling up to a level its competitors could not fathom. Likewise, China is also in the driving seat for electric vehicles, with a domestic EV market bigger than the American and Japanese markets combined, and producing big battery packs for EVs more than the rest of the world combined. China has achieved this spectacular status by pursuing joint ventures with large automakers like Toyota, Ford and Tesla. Because of the close economic relationship between the two countries and several special economic zones under CPEC Pakistan can also aim at joint ventures with leading Chinese and other firms and leapfrog on the pathway to decarbonisation faster than most of its neighbours. Favouring hybrid vehicles cannot lead to transformational change.

It seems that the EV market will surpass the official targets, only if an adequate charging infrastructure is speeded up, before the elite capture bypassesthe common man. A handful of charging stations by some elite brands is a sham for a country with more than 70 million people living below the poverty line, particularly since the EVs are at the cusp of emerging as the most disruptive technologies.

The cost of batteries around the world has gone up every year. The endless possibilities capture the imagination of young entrepreneurs, start-ups, fintechs, and SMEs. They will transform two-wheelers, three-wheelers, light commercial transporters who provide loading and transportation services at the local level and, of course, thousands of entrepreneurs who provide pick-and-drop services to schoolchildren in every town and city. Replaceable batteries, obtained from vendors on rent, can bring the cost down by more than two-thirds. Further, a chain of competing collection points to pick up charged batteries along the highways, can bring down emissions as well as the cost of doing business. It will propel trade nationally and with Afghanistan.

It is therefore an opportune time for the government to promote EVs for 100-200 kilometres commuters, to get the co-benefit of clean air in congested areas. Developing policies for charging infrastructure needs to be a priority. Presently, the grid capacities are precarious and can hardly cope with increased demand. The prime minister`s fivemillion affordable low-cost housing units and housing societies can ideally provide `charger ready` housing in future to support the transition.

Finally, EVs are promising but not a silver bullet for Pakistan`s decarbonisation challenge. Pakistan`s success will hinge on considerable investments in renewable energy. A clear emphasis on five policy innovations is in order: a) Of f-grid, distributed generation allowing business-to-business power purchaser agreements; b) Off-grid energy service companies and models for rural electrification and universal energy access; c) Promoting electric mobility, including railways; d) Circular economy in recycling waste-to-energy; and e) reducing emissions from agriculture, and scaling-up nature-based solutions.  The writer is an expert on climate change and development.