The role that States can play in promoting climate change mitigation extends beyond the regulation of private actors. States are important economic actors in their own right. State-owned enterprises (SOEs) dominate sectors which are critical to a transition towards a carbon-neutral economy – particularly so in emerging economies. States have sometimes used their ownership policies to induce efforts towards climate change mitigation; they should always use this opportunity. SOEs can demonstrate the economic viability of incremental and structural reforms at the scale of a corporation. They are a chance for governments to lead by example. The framework for non-market approaches to sustainable development should further explore and raise awareness on the role that State ownership policies play in climate change mitigation.

1. A good time to look beyond emissions trading schemes

Market-based approaches to climate change mitigation, such as emissions trading schemes, have met a moderate success in the implementation of the Kyoto Protocol. Yet, what works (relatively) well in Annex-B Parties does not necessarily fit in different national circumstances. Developing States and emerging economies may have weaker administrative and jurisdictional institutions, while some also face rampant corruption. In such conditions, the conception and the effective implementation of highly complex emissions trading schemes will face serious obstacles.

Moreover, the economic system of some countries contrasts sharply with the model of market economy that Annex-B Parties are pursuing. The seven pilot emissions trading schemes led in China have generally shown a lack of participation by SOEs, which do not react to economic incentives in the same ways as assumed by classical economic theories. These different national circumstances make it difficult and possibly counterproductive to transplant the mitigation measures of Annex-B Parties to the rest of the world. Rather, innovation will be essential to the success of the Paris Agreement. State ownership policies are an important site for such innovation.

2. The importance of State ownership in relevant economic sectors

SOEs are present in every State but they are particularly prevalent in emerging economies. In this policy brief, we consider as SOE any enterprise which is majority-owned by a public institution, whether a central or local government, alone or in combination with other public institutions.

Fossil fuel sector:
An estimated 80% of global oil reserves and 60% of global natural gas reserves belong to SOEs, which generate 61% of global oil production and 52% of global gas production. As for coal, State ownership is limited (9%) in the OECD countries but extensive (66%) in the developing world, with nearly total public ownership in some of the heaviest coal-consuming economies, such as China, India and Vietnam. Many SOEs in the fossil fuel sector extend operations globally. More than a fifth of current greenhouse gas emissions can be traced to fossil fuels produced by just twelve SOEs.

Power production:
SOEs control half of the world’s power generation assets. State ownership in the power sector is particularly prevalent in emerging economies, with about two-third of power produced by SOEs in China, India and some Southeast Asian States, compared with 45% in the European Union and 20% in the United States.\(^7\) SOEs are usually more prevalent in the production of power from fossil fuels than in renewable energies. For instance, Chinese SOEs control 61% of installed coal power capacity but less than 30% of non-hydro renewable energies.\(^8\) Yet, Chinese SOEs have recently been investing massively towards the development of a global leadership in equipment manufacturing for the generation of wind and solar power.\(^9\)

3. Ownership and influence

SOEs exist in all shapes and sizes, and governments exercise influence on their operations in different ways. Ownership can be full or partial, exploitation can be monopolistic or not, and SOEs may or may not operate under privileged conditions. In all cases, States continue to have a financial leverage as fund providers. Moreover, State authorities often appoint the managers of the SOEs and define their priorities, whether through legislation, regulation, or shareholder decision-making. Lastly, informal interpersonal relations often develop between policymakers and company managers.

Over the past decades, successive governance reforms have generally strengthened the independence of SOEs and insistently situated them as equal players in competitive markets. Development of international best practices shows that shareholder-based communication has rapidly become the standard form of engagement. In this regard, formulation of State ownership policies is crucial.\(^10\)

4. Obligations of the owner governments under international law

State ownership policies already operate in a framework structured by international climate law. The conduct of SOEs can sometimes be attributed to the owner government, as multiple international regimes spanning from investment law to human rights law have shown. Under international law, the conduct of a SOE can engage the State’s responsibility when the SOE is a State organ, exercises governmental authority, or is under the effective control of the State, or when the State otherwise approves its conduct. Accordingly, under right conditions, the massive greenhouse gas emissions of some SOEs could be directly attributed to States. Naturally, the due diligence obligation of States to regulate any activities conducted within their jurisdiction applies, and is often aggravated, in the case of SOEs. State responsibility can also emerge when a SOE aids or assists another State in causing excess greenhouse gas emissions, for instance by providing material assistance through trade in fossil fuels.\(^11\)

In some cases, State ownership policies provide favourable treatment amounting to a subsidy, which Annex-B Parties and G20 States have committed to phase out, and G7 States have encouraged all countries to eliminate by 2025. States may also be in breach of their obligation to provide education and raise awareness when the enterprises they own engage in climate denial campaigns. Lastly, by developing vested interests through SOEs, States could be in breach of their obligation to continue to negotiate stronger mitigation commitments.

5. Ownership policies as an opportunity for a rapid transition to a carbon-neutral economy

There are two main trends in State ownership policies towards climate change mitigation: leaving or leading.

- **Leaving** has been promoted through a vast divestment campaign in recent years, with some outreach in public institutions. The most famous case is the decision of the Norwegian Pension Fund–Global, the world’s largest sovereign wealth fund, to divest from coal production, but many cities, municipalities and public universities have followed the same path. Public divestment can send a strong political message and it could render capital in a particular sector
more expensive. Ill-conceived divestment could however favour less capital-intensive but more environmentally-harmful activities, for instance the production of coal over that of oil and gas, or hinder investments in more efficient thermal plants. To overcome this development, sometimes identified as the ‘carbon curse’, divestment from some carbon-intensive activities should naturally come hand-in-hand with re-investments in alternative activities such as renewable energies.

- Leading by example often yields better policy alternatives. In this sense, States can exercise their investor, shareholder and informal influence in appropriate ways to develop the fine lines of a sustainable model of development. SOEs are already recommended to adopt ‘high standards of responsible business conduct’, but they can also do the first step toward an economy-wide transition and play a great role in implementing national policies. For example, the recent plan by Saudi Arabia to diversify its economy beyond energy through a sovereign wealth fund includes a strong sustainability dimension. In any case, innovation and leadership begin at the level of formulating State ownership policies. So far, these policies have not fully internalized the potential costs of climate change. This needs to change. Climate-sensitive State ownership policies may have enough leverage to overcome the ‘carbon curse’ if States, as signatories of relevant conventions and as economic actors, meet their international commitments and actively fulfil their mandate.

This brief is part of an on-going research project on the potential of State ownership policies for climate change mitigation, both in an international perspective and in the particular context of China. Further discussions can already be found in B. Mayer & M. Rajavuori, ‘National Fossil Fuel Companies and Climate Change Mitigation under International Law’ (2016) Syracuse Journal of International Law and Commerce (forthcoming).

Notes

1 Assistant Professor, Chinese University of Hong Kong, http://www.benoitmayer.com, bnt.mayer@gmail.com
2 Doctoral Candidate, University of Turku, mijora@utu.fi
3 Paris Agreement, art. 6, para. 9.
5 Ibid. 56-57, based on data from Wood Mackenzie.
7 IEA, n. 4, at 33 at 95.
9 H. Bergsager & A. Korppoo, China’s State-Owned Enterprises as Climate Policy Actors The Power and Steel Sectors (2013) at 45-46.
10 See e.g. OECD, Guidelines on Corporate Governance of State-Owned Enterprises (2015); World Bank, Corporate Governance of State-Owned Enterprises (2014).
12 OECD, n. 10.
13 In the Chinese context, see A. Wang, ‘Chinese State Capitalism and the Environment’ in B. Liebman & C. Milhaupt (eds), Regulating the Visible Hand? The Institutional Implications of