



E3G

# THE POLITICS OF THE GLOBAL GAS TRANSITION

Reflection note following an E3G and ODI workshop at the London Climate Action Week on 3 July 2019

Natural gas is becoming the world's fastest-growing fossil fuel.<sup>1</sup> However, it is now clear that meeting the Paris Agreement climate targets will not be possible without tackling emissions from natural gas. Untangling and managing the political economy of a transition away from gas will be complex and will present different challenges depending on geographies and actors.

This event brought together over 30 participants from government, industry, civil society and finance. Scene-setting presentations by E3G, ODI, Oil Change International, the Institutional Investors Group on Climate Change and the Oxford Institute for Environmental Change.

Were followed by a discussion of the following questions:

- How can we define sustainable outcomes in relation to the gas transition?
- What would it take to achieve and finance these outcomes? Where are the barriers and opportunities?
- What actors, actions and venues are critical to driving forward solutions?

Workshop participants made significant contributions during the break-out discussions and the report back to the room, reflecting a multitude of perspectives with regard to the challenges and potential solutions.

## Background

Natural gas represents one-fifth of global energy-related CO<sub>2</sub> emissions, with consumption expected to increase by 45% by 2040 under the International Energy Agency (IEA) New Policies Scenario. Coal-to-gas switching alone will not take us anywhere near where we need to be on climate goals. Phasing out coal by the middle of next decade and replacing three quarters of it with gas would still leave us way off a 2°C trajectory for the power sector.<sup>2</sup>

Some economies (such as Europe and some parts of the US) are already debating how to move away from unabated use of gas and adapt to declining demand. Others (such as China) are expanding their reliance on gas as part of their transition away from coal. Countries such as

---

<sup>1</sup> IEA, World Energy Outlook 2017, <https://www.iea.org/weo2017/>

<sup>2</sup> BNEF, New Energy Outlook 2018, <https://bnef.turtl.co/story/neo2018>

Mozambique, on the other hand, are just beginning to invest in gas exploration and production, and consider gas an essential revenue stream for developing their economies.

Gas value chains also extend beyond regional and national economies into international geopolitics and, increasingly, international trade. A more global and comprehensive discussion around the politics of the global gas transition is therefore essential to ensure a financially, politically, and environmentally sustainable and orderly transition.

## Takeaways

### How to define a sustainable outcome?

The discussions broadly identified three dimensions of “sustainability” in the context of the gas transition – climate safety, an orderly and just transition, and equity.

#### Dimension 1 – climate safety:

- The current global trajectory for natural gas is not in line with pathways aiming at limiting climate change to 1.5°C. The Intergovernmental Panel on Climate Change pathways range from deep reductions by 2050 to a small increase if negative emissions technologies are deployed.<sup>3</sup> This increase would still be lower than business-as-usual projections for gas demand, e.g. by the IEA. Analysis by Oil Change International suggests that our current infrastructure investments in oil, gas and coal already have taken us beyond the 1.5°C degree pathway.<sup>4</sup>
- In addition, increasing emissions of the highly potent, short(er)-lived methane emissions associated with natural gas could bring us nearer to global and regional tipping points. The extent and impacts of these emissions still poorly understood, however.

#### Dimension 2 – orderly and just transition:

- Prospective or existing gas producers in developing countries see an opportunity to strengthen economic development through exporting natural gas. However, with gas consumption set to decline, future revenues are uncertain and may be highly volatile - setting these countries onto an unsustainable development pathway.
- The labour force in the natural gas industry is less regionally concentrated than that in the coal industry, where it is mainly related to mining and plants. But there is a significant workforce all along the supply chain: from people working on exploration to those in utilities or appliance installation. Ensuring a just transition for workers in natural gas and related sectors will be critical.

---

<sup>3</sup> IPCC Special Report, Global Warming of 1.5°C, <https://www.ipcc.ch/sr15/>

<sup>4</sup> Price of Oil, Sea Change: Climate Emergency, Jobs and Managing the Phase-out of UK Oil and Gas Extraction, <http://priceofoil.org/2019/05/15/sea-change-report/>

### Dimension 3 – Equity:

- Fossil fuel exports are often considered an opportunity for economic development - a path many developed economies have taken in the past (e.g. UK, US).
- In addition, gas in some instances offers access to affordable, reliable energy and an opportunity to reduce pollutants from the use of biomass. The contribution to emissions from gas use in cooking in rural areas is expected to be low, but the buildup of a distribution infrastructure might then lead to higher levels of gas use in other sectors.<sup>5</sup>

## What would it take to achieve and finance this? Where are barriers and opportunities?

Currently, the role of public finance in pivoting investment from fossil fuels to investment in clean alternatives is under-leveraged. In countries like Bangladesh, access to finance from, for example, the Green Climate Fund can be difficult for smaller, emerging clean energy actors. Development banks and export credit agencies are still supporting fossil fuel exploration and extraction.

### Modelling of development pathways currently neglects climate-related risks, preventing optimal decision-making:

- First, the global transition in the context of the Paris Agreement might depress global prices for natural resource exports as demand diminishes. As a result, some of the more expensive resources could be left untapped.<sup>6</sup> **Development pathways built on fossil fuel exports (Mozambique’s, for instance) thus come with an additional risk that needs to be explored in development scenarios.** Data sets for the global transition, such as the IEA scenarios, rely however heavily on negative emissions technologies and thus may overstate the future use of fossil fuels.<sup>7</sup> **Better data, information and guidance are therefore crucial to help policy-makers make decisions accordingly,** and ensure they build their energy and development plans to accurately reflect changing circumstances and risks.
- Second, a **world of increased global fossil consumption would also be associated with an increased frequency of climate-related weather events,** putting lives and infrastructures at risk. Many of the most climate vulnerable countries can be found in the often resource-rich global south.<sup>8</sup> **Including the changing risk profile for climate impacts associated with different levels of global fossil fuel consumption** is another dimension that can improve decision making.

It is also important to acknowledge **other pressures for countries to develop natural resources; these include keeping up debt servicing payments and the absence of alternative**

---

<sup>5</sup> Universal access to clean cooking using LPG would be equivalent to 1 million barrels a day or 0.8% of global oil demand.

<sup>6</sup> IMF (2017), Unburnable Wealth of Nations, <https://www.imf.org/external/pubs/ft/fandd/2017/03/cust.htm>

<sup>7</sup> Financial Times (2 April 2019), IEA’s climate models criticised as too fossil-fuel friendly, <https://www.ft.com/content/5c80f102-5535-11e9-91f9-b6515a54c5b1>

<sup>8</sup> Verisk Maplecroft (2017), Climate Change Vulnerability Index 2017, <https://reliefweb.int/sites/reliefweb.int/files/resources/verisk%20index.pdf>

**socio-economic development strategies in the context of a growing population.** These dimensions need to become part of the picture, and options to prevent risky natural resource development strategies should be explored more fully (e.g. long-term strategies under the Paris Agreement).

Regional energy cooperation, which can increase energy security without fossil use or boost the use of renewable energy sources in places where these are still underdeveloped (e.g. Bangladesh), is often limited. **Dedicated regional policy dialogues, combined with funding to increase grid interconnection (such as the European CESEC platform), could be a key area of action for governments and development banks.**

Many global private investors are increasingly aware of climate-related risks and are looking to reduce exposure to fossil fuel funding. However, developing clear fossil fuel exclusion policies might put them at odds with some local governments and make market access more difficult. **A collective move from several private finance institutions, as well as parallel diplomatic engagement by the EU (or UK/France, for example) on sustainable finance standards, can help overcome a potential collective action problem.**

#### **Case studies Mozambique and Bangladesh**

**Mozambique:** Mozambique, currently ranking 180th of the 189 countries on the Human Development Index, expects to more than double its GDP by developing and exporting its natural gas reserves. However, its gas development strategy does not take into account a potentially stalling or declining demand for gas in the context of global climate targets. Moreover, the structure of contract means government revenues will not materialise until the early 2030s. In the meantime, the high expectations of revenue generation are already leading to a ‘pre-source’ curse, whereby related impacts on the cost of living, level of corruption and violent conflict are already visible.<sup>9</sup>

**Bangladesh:** Bangladesh currently relies heavily on natural gas, but domestic reserves are dwindling. In response, Bangladesh is investing in LNG import infrastructure but only if extremely low gas prices persist it will be able to afford an expansion in the longer term.<sup>10</sup> In addition, Bangladesh is also ramping up coal use. Coal-fired power generation is expected to represent 50% of total installed power by 2030. Investments for coal are coming from regional partners China, Japan and India, while international support to develop renewables, energy efficiency and regional interconnection is comparatively minimal.

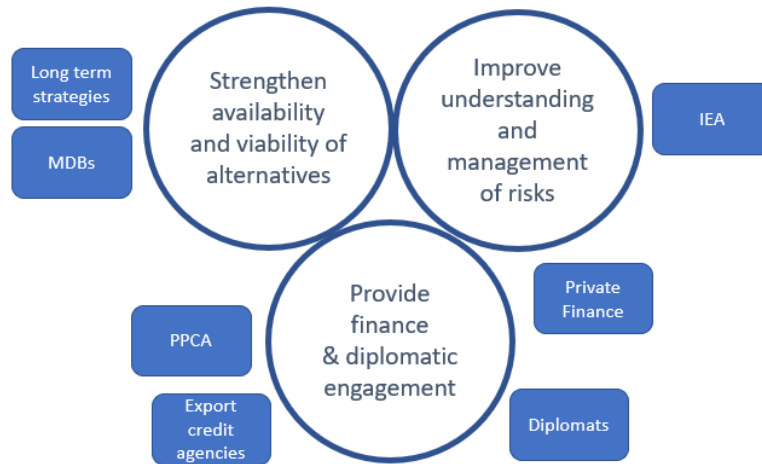
---

<sup>9</sup> Chr. Michelsen Institute (2017), Mozambique: A political economy analysis, <https://www.cmi.no/publications/6366-mozambique-a-political-economy-analysis>

<sup>10</sup> Stern, Jonathan (2017), Challenges to the Future of Gas: Unburnable or Unaffordable?, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2017/12/Challenges-to-the-Future-of-Gas-unburnable-or-unaffordable-NG-125.pdf>

## What actors, actions and venues are critical?

The following graph summarises some of the core actions, actors and venues discussed as part of the solution:



The discussion emphasised the need for regular engagement that brings together the multiple actors involved, given the complexity of the relationship between climate, development, finance and related policy. As an example, this could ensure private finance actors are ready to step up their efforts when signals and commitments are put in place by national and multilateral development banks.

With the gas transition having a multitude of sustainability dimensions, national policy-makers need to work with energy, development and climate risk experts, with financiers (public and private), and with non-governmental stakeholders.

## Next Steps

E3G and ODI are both deepening their work in this area. Please get in touch if you are interested in being involved in contributing to or reviewing this work:

- Lisa Fischer [lisa.fischer@e3g.org](mailto:lisa.fischer@e3g.org)
- Ipek Gençsü [i.gencsu@odi.org.uk](mailto:i.gencsu@odi.org.uk)

For existing E3G work on gas, please see <https://www.e3g.org/showcase/gas-in-focus-net-zero-emissions>