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CLEAN ENERGY, NOT COAL: CITIZENS VIEWS OF FOREIGN INVESTMENT IN SIX COUNTRIES

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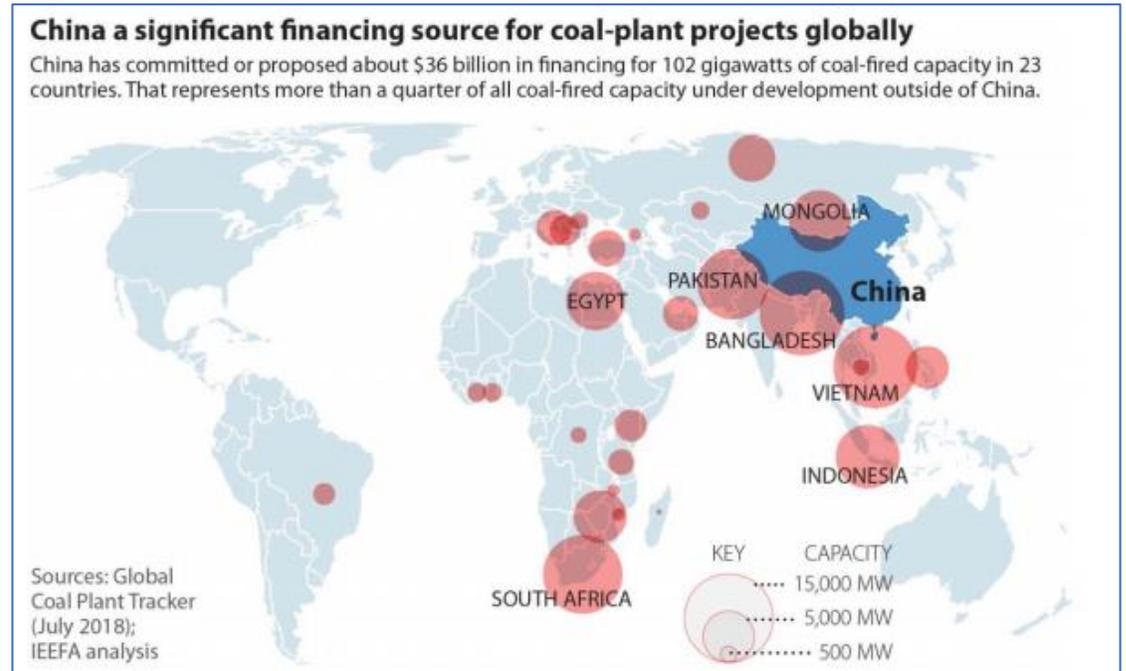
Context: China, Japan and South Korea are the world's biggest sources of coal finance

- Financial support for new coal power generation around the globe is dominated by China, Japan and Korea.
- Analysis by NRDC found that these three countries had provided public financial support to coal power projects amounting to 81% of capacity supported by overseas public finance in the period 2013-2018. [2]
- NRDC estimate that China alone is likely to provide public finance to 42GW of proposed coal capacity, making it the world's largest financier of coal power generation.

- More broadly, IEEFA have estimated that of the 399 gigawatts (GW) of coal plants currently under development outside China, Chinese financial institutions and corporations have committed or offered funding for over one-quarter of them (102GW), across 23 countries. [3]

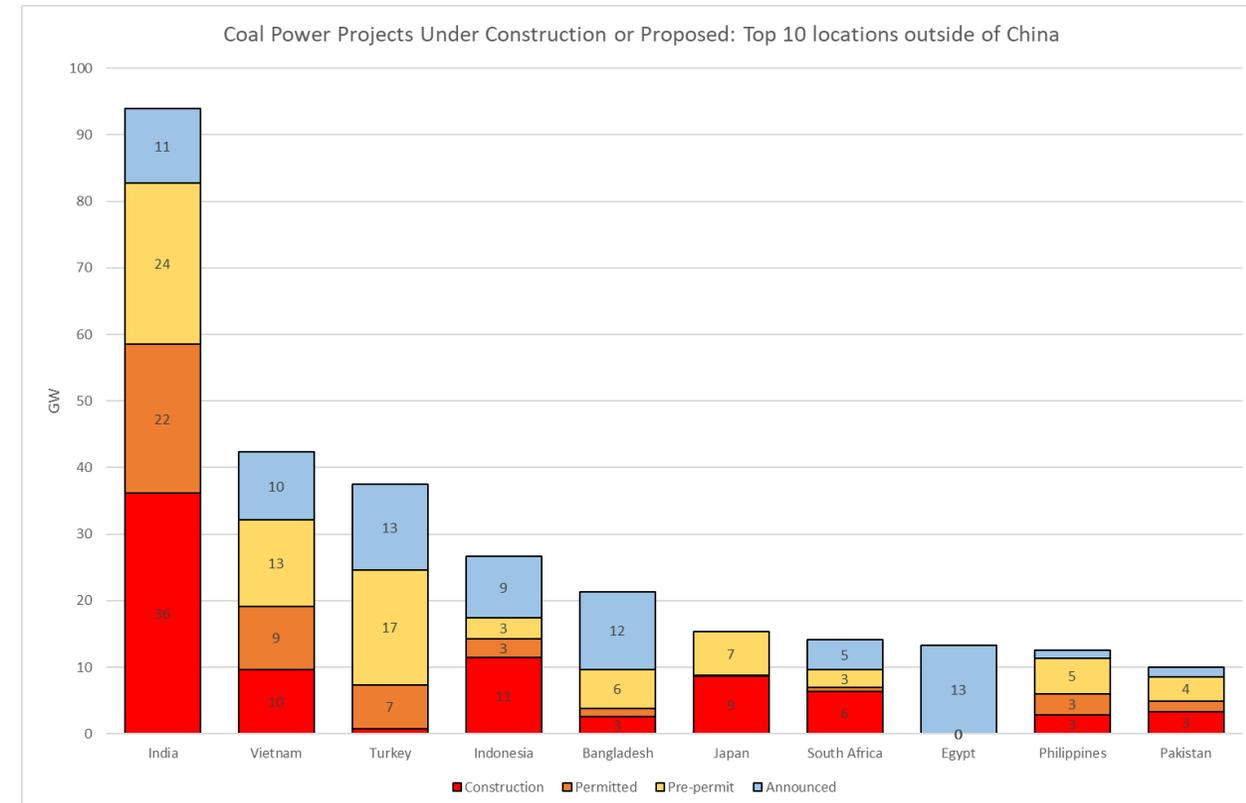
Support for Coal Plants Overseas (2013-2018)	
Financing Country	Total Capacity (in Gigawatts)
China	26.7
Japan	19.6
Korea	8.5
France	4.8
Germany	3.1
India	1.4
Multilateral	1.2
Italy	0.8
Russia	0.6
United States	0.5
South Africa	0.3

Proposed Projects Likely to Receive Foreign Support	
Potential Financing Country	Total Capacity (in Gigawatts)
China	42.4
South Korea	12.0
Japan	9.8
Multilateral	2.9
India	1.3
Italy	1.2
Russia	1.2
United States	0.5



Introduction: Country selection

- In this first multi-country survey of public opinion towards foreign investment in energy, E3G commissioned YouGov to poll citizens of Indonesia, Pakistan, Philippines, South Africa, Turkey and Vietnam during April 2019.
- The six countries selected all feature in the top 10 locations for proposed coal power plant construction outside of China. [1]
- The six countries all feature in the investment plans of China's Belt and Road Initiative. Japan and South Korea are also active in supporting coal projects in the majority of these countries.
- The polling sought to identify how citizens in each country perceived different energy technologies and whether this impacts on favourability towards foreign investment flows.



Summary: Headline Findings of Polling

- In all six countries, citizens have a strong preference for clean energy rather than coal. When asked which type of energy they felt their country should invest in to best support its long-term development, the majority selected renewable energy sources, ranging from 61% in Pakistan to 89% in Vietnam.
- Citizens feel that investing in solar power should be a high priority for the long-term development of their country, receiving the highest positive responses of all energy options in all six countries.
- There are sharp differences between citizens' views of clean and dirty energy technologies. Coal is the energy technology that respondents felt should be the lowest priority, ranked even lower than nuclear in four of the six countries.
- Citizens views towards foreign investment in coal see it as contributing to increased pollution and climate change. Coal was also more associated with corruption than are renewable energy investments. In contrast, the top response from citizens towards wind and solar is that these energy sources are viewed as being good for the economy in the long term.
- In all six countries, a substantial majority of citizens polled responded that they would be Very Favourable towards foreign investment by governments, banks and companies when it is to support clean energy (ranging from 57% to 76% of responses).
- In contrast, all countries saw only a minority of citizens respond that they would be Very Favourable towards foreign investment in fossil fuels (ranging from 13% to 32%). In Vietnam a majority of respondents (52%) viewed foreign investment in fossil fuels unfavourably.
- The results of the polling highlight that government energy policies and foreign investment packages, which currently favour coal, are at odds with citizen preferences for clean energy.

1. Is it better to invest in renewable energy or fossil fuels?

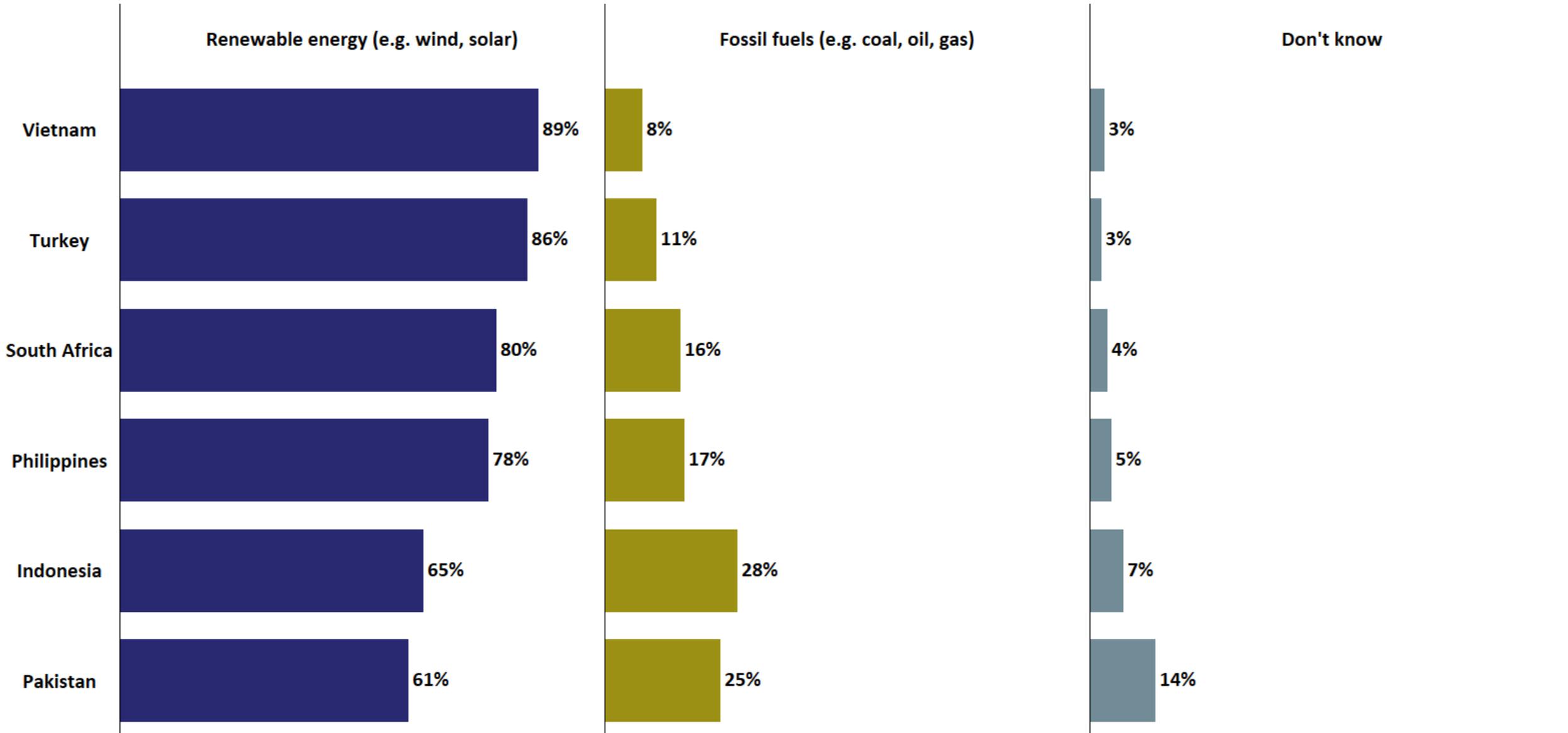


- Across the different questions asked in the polling, we defined 'long term development' as meaning development that will improve citizens' day-to-day life e.g. social, health, economic etc.
- In all six countries, citizens responses showed a strong preference for clean energy rather than coal, as illustrated on slide 7.
- When asked which type of energy they felt their country should invest in to best support its long-term development, substantial majorities in all six countries selected renewable energy sources such as wind and solar.
- Four of the six countries saw over 75% of citizens prefer Renewable Energy, with 78% in the Philippines, 80% in South Africa, 86% in Turkey, and 89% in Vietnam. In the other two countries there was still a strong majority in favour of renewables with 65% in Indonesia and 61% in Pakistan.
- In contrast, a preference for fossil fuels (coal, oil, gas) was a minority response in all countries, only reaching one quarter of responses in Pakistan (25%) and Indonesia (28%).
- Pakistan saw 14% of citizens registering a 'Don't Know' response, suggesting that the relative merits of different energy sources is still under debate with relatively greater uncertainty as to what would be a better option for the country's development.



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If you had to choose, which one, if either, of the following do you think it is better to invest in today for long-term development of [COUNTRY]?



Source: YouGov polling for E3G, April 2019

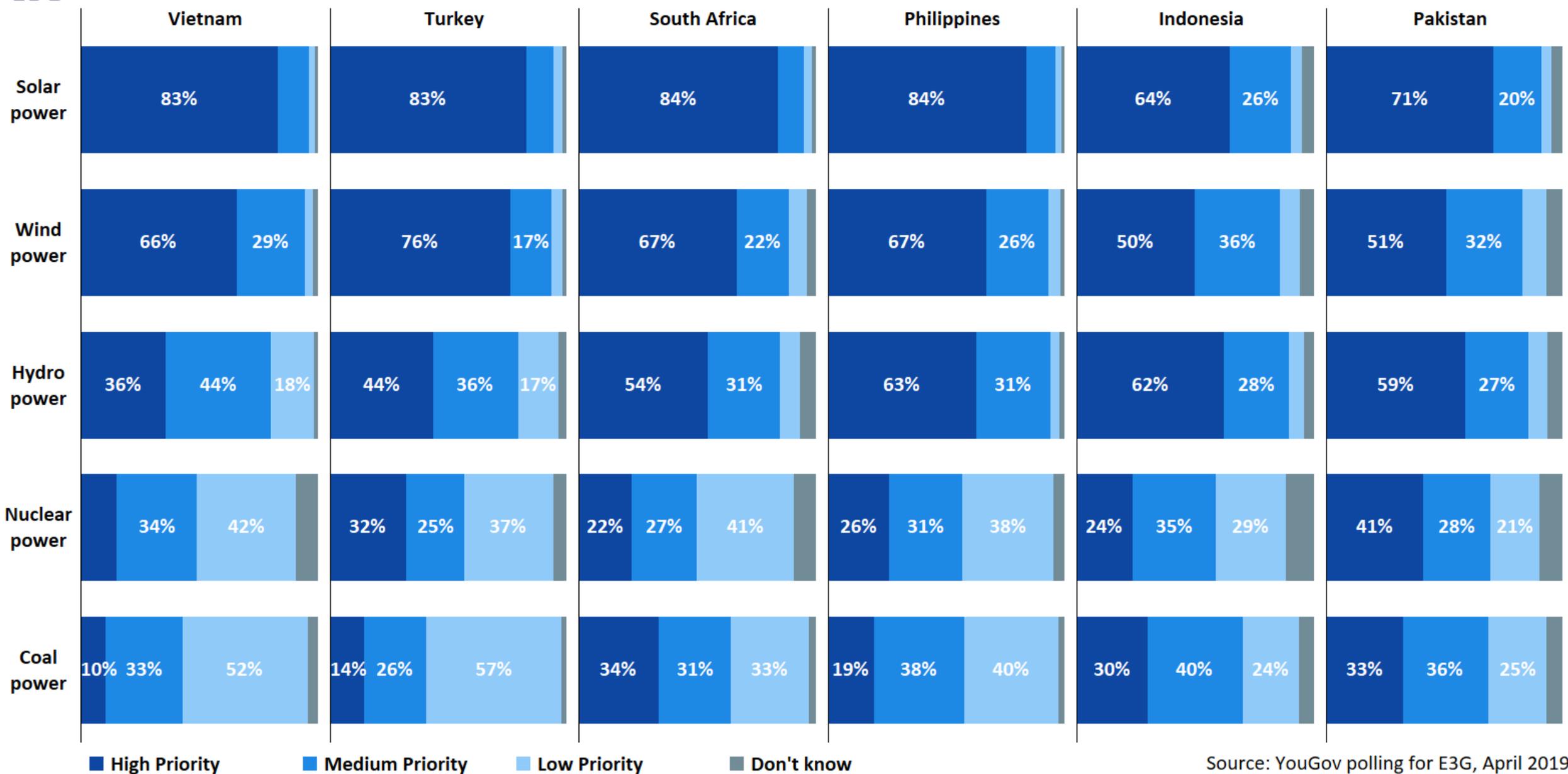


2. Views of Foreign Investment in different energy technologies

- Across the different questions asked in the polling, we defined "foreign investment" to mean governments, banks, and companies from outside of [Country] providing financial resources, technology and/or management support to help develop energy projects within [Country].
- When citizens were asked how much of a priority, if at all, should it be for the government of [Country] to encourage foreign investment in different types of energy production, a substantial majority (64%-84%) of the public in all six countries responded that solar energy should be a high priority for investment. Wind was the second most popular form of energy production in all six countries (50%-76%), with hydro third (36%-63%), as shown on slide 9.
- In contrast, between 10% and 34% of respondents saw coal-fired power as a high priority for investment while 24% to 57% thought it should be a low priority. Coal was therefore positioned as the least popular option in four of the six countries and ahead of only nuclear power in the other two (South Africa and Indonesia).
- Support for coal power is particularly low in three countries where less than 20% of citizens want it treated as a high priority: the Philippines (19%), Turkey (14%), and Vietnam (10%).
- Support for hydro power was relatively lower in Vietnam (36%) and Turkey (44%), most likely reflecting negative experiences with large hydro schemes. Only in Pakistan was nuclear power viewed as a high priority for investment by more respondents than those who viewed it as a low priority (41% to 21%).



In general, how much of a priority, if at all, do you think it should be for the government to encourage foreign investment in each of the following types of energy production?



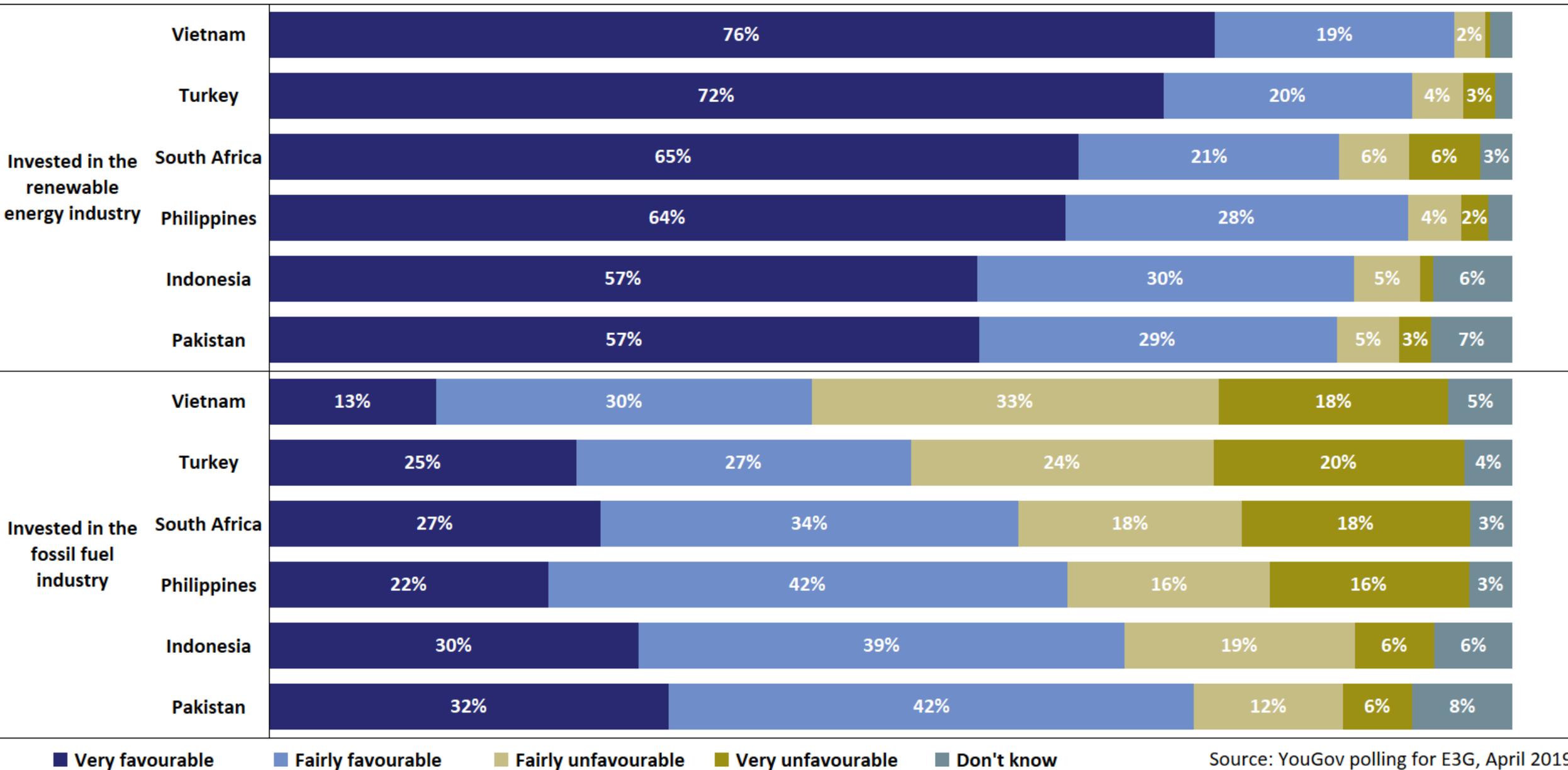
Source: YouGov polling for E3G, April 2019

3. Favourability towards Foreign Investors depends on whether they support renewables or fossil fuels



- In all six countries, an overwhelming majority of the public surveyed (over 85%) responded that they would be Very or Fairly Favourable to foreign governments, banks and companies that invested in the renewable energy industry in their countries, as shown on slide 11.
- A majority in every country say they would be Very Favourable to these entities when investing in renewables (57% in Pakistan and Indonesia rising to 76% in Vietnam).
- In contrast, the public in these countries would be much less favourable to foreign government, banks and companies that invested in the fossil fuel industry in their countries. Less than a third of the public in every country say they would be Very Favourable to the investing entity in these circumstances.
- Responses to polling indicated a much softer favourability towards foreign investment in the fossil fuel industry than in the case of Renewables, with substantially more respondents indicating that they would be Fairly Favourable (27% to 42%) rather than Very Favourable (13% to 32%).
- In Turkey and Vietnam over two in five (44% and 52% respectively) of respondents indicated that they would be Very or Fairly Unfavourable towards foreign governments, banks and companies investing in the fossil fuel industry.

In general, how favourable or unfavourable would you feel towards foreign governments, banks, and companies that did either of the following?



4. Perceptions of Foreign Investment in Coal Power Generation

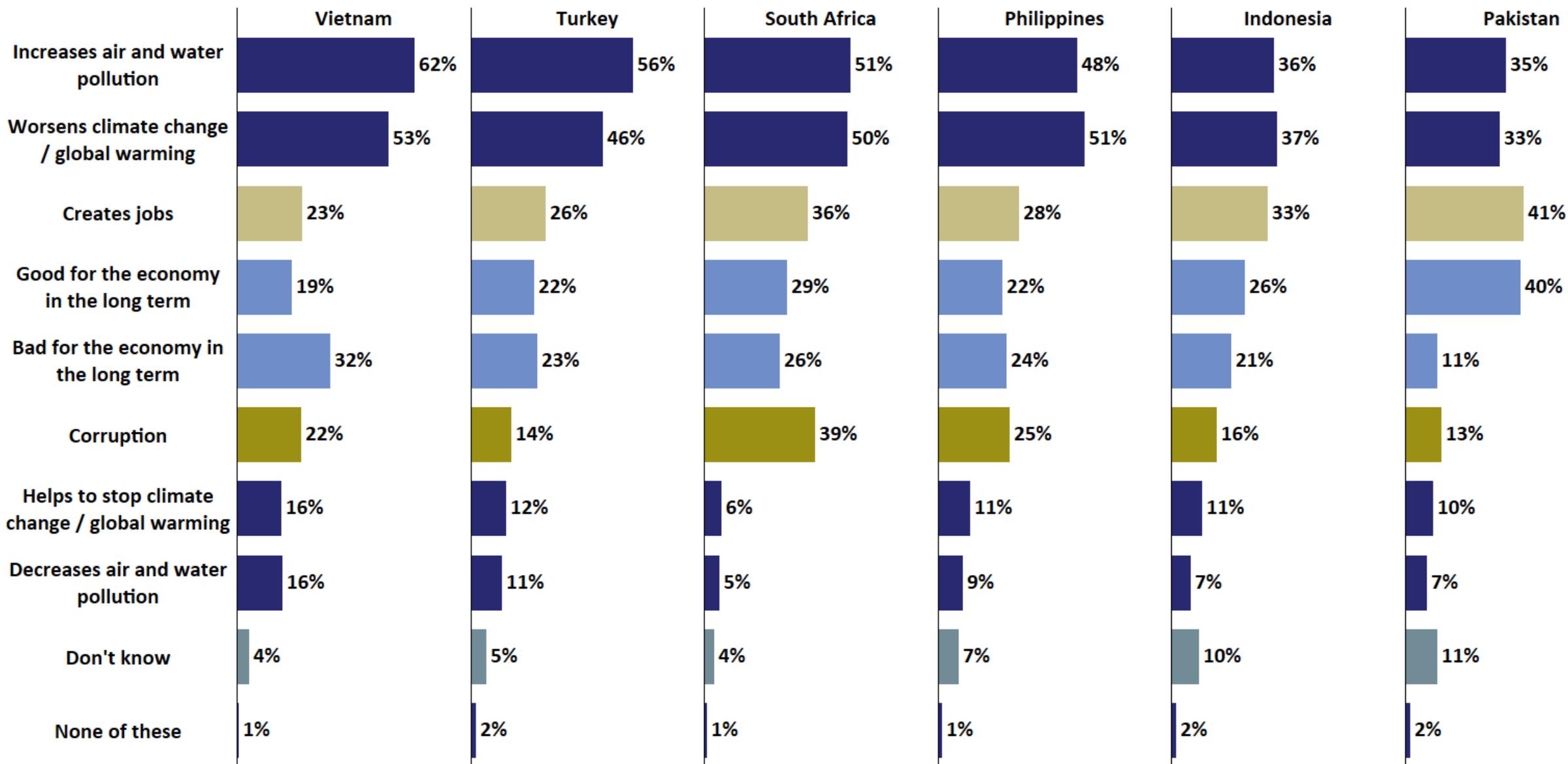


- The order of questions 4 and 5 was randomised in each survey, as were the descriptions from which respondents could select multiple options to identify the words or phrases that they associated with foreign investment in coal power / wind and solar.
- Foreign investment in coal power had mostly negative associations. In nearly every country the top association with investment in coal power was either that it worsens climate change or that it increases air and water pollution, as shown on slide 13.
- Pakistan was the only country where a positive attribute - “creates jobs” - was the top association for foreign investment in coal (41%), however this was lower than the 50% of respondents in Pakistan who indicated that they view foreign investment in wind and solar power as creating jobs.
- Pakistan was also notable in that 40% of respondents see coal power generation as being good for the economy in the long term (versus 11% who saw it as bad for the economy). All other countries saw a similar split between responses, with 32% in Vietnam viewing coal as bad for the economy.
- The public in Vietnam also made the strongest connection between coal power and climate change, with 53% selecting an association between coal power and worsening climate change/global warming. This was followed by the public in the Philippines (51%) and South Africa (50%).
- Vietnamese public opinion associates coal power with air and water pollution particularly strongly, with 62% of the public making this association. This view is also widespread in Turkey (56%) and South Africa (51%).
- For South Africans in particular, coal power is associated with corruption, with 39% selecting this association. This was followed by the Philippines and Vietnam at 25% and 22%, respectively. In every country, more people associate foreign investment in coal power with corruption than say the same about foreign investment in wind and solar power.



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Which, if any, of the following words and / or phrases do you associate with foreign investment in coal power in your country? [Multiple selections allowed]



5. Perceptions of Foreign Investment in Wind and Solar

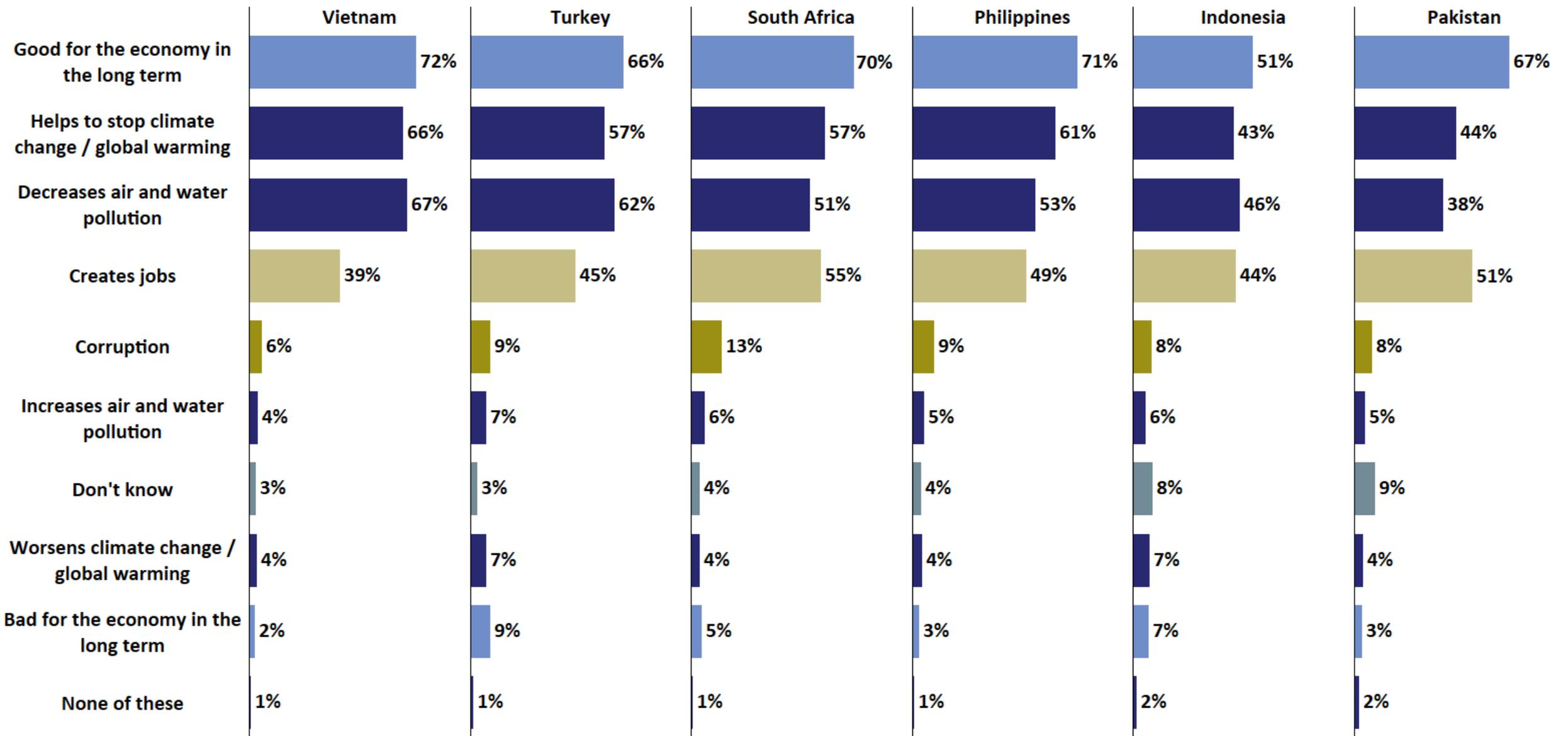


- The order of questions 4 and 5 was randomised in each survey, as were the descriptions from which respondents could select multiple options to identify the words or phrases that they associated with foreign investment in coal power / wind and solar.
- In contrast to the conflicting perceptions of the value of coal power generation to the economy, respondents across all six countries strongly associated foreign investment in wind and solar as being good for the economy in the long term, positioning this as the highest scoring option. This was a majority view in every country, with Indonesia at 51% and all others in the range of 66% to 72%, as shown on slide 15.
- By contrast, responses viewing wind and solar as bad for the economy in the long term were between 2% (Vietnam) and 9% (Turkey), making this the lowest scoring option.
- Foreign investment in wind and solar power is also strongly associated with stopping climate change, with particularly high scores for this in Vietnam, the Philippines, South Africa and Turkey. It is also widely seen as decreasing air and water pollution, with a majority of the public in the same four countries making this association.
- A large proportion of the public in all six countries also associate foreign investment in wind and solar power with job creation. This is particularly true in Pakistan (50%) and South Africa (55%), with all countries seeing higher responses in the case of wind and solar than that of coal power.
- In every country, more people associate foreign investment in coal power with corruption than say the same about foreign investment in wind and solar power – which was selected by less than 10% of respondents in all countries except South Africa (13%).



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Which, if any, of the following words and / or phrases do you associate with foreign investment in wind and solar power in your country? [Multiple selections allowed]



Conclusions and next steps

- The countries analysed in this polling exercise are all at the forefront of the global transition from coal power generation to clean energy.
- The results of the polling highlight that government energy policies and foreign investment packages, which currently favour coal, are at odds with citizen preferences for clean energy.
- The stronger favourability of citizens towards foreign investment aimed at supporting renewable energy (and their negative perceptions towards coal power generation) suggests that there will be valuable reputational and soft power benefits for governments, banks and companies that can pivot away from coal and towards clean energy.
- China, Japan, and South Korea all have substantial investments in coal power generation (from both public financial sources and private companies), but they also have low-carbon technology options for export and associated engineering expertise, and should be able to capitalise on this shift.
- The findings of this polling analysis will be relevant for the bilateral relationships and multilateral leadership roles of all three of China, Japan, and South Korea, notably including Japan's Presidency of the G20 during 2019 and its hosting of the Tokyo Olympics in 2020.
- E3G aims to use this polling data to undertake deeper, country-specific analyses over the coming months. We welcome comment and insights on our initial findings.

YouGov Polling Methodology and Details

Methodology: These surveys have been conducted using an online interview administered to members of the YouGov Plc MENA/ APAC panels individuals who have agreed to take part in surveys. Emails are sent to panellists selected at random from the base sample. The e-mail invites them to take part in a survey and provides a generic survey link. Once a panel member clicks on the link they are sent to the survey that they are most required for, according to the sample definition and quotas. (The sample definition could be "Pakistan adult population" or a subset such as "Pakistan adult females"). Invitations to surveys don't expire and respondents can be sent to any available survey. The responding sample is weighted to the profile of the sample definition to provide a representative reporting sample. The profile is normally derived from census data or, if not available from the census, from industry accepted data.

All figures, unless otherwise stated, are from YouGov Plc.

- In **Indonesia**, total sample size was 1,003 adults. Fieldwork was undertaken between 9th - 15th April 2019. The survey was carried out online. The figures have been weighted and are representative of all Indonesia adults online (aged 18+).
- In **Pakistan**, total sample size was 1,016 adults. Fieldwork was undertaken between 9th - 17th April 2019. The survey was carried out online. The figures have been weighted and are representative of all Pakistan adults online (aged 18+).
- In the **Philippines**, total sample size was 1,004 adults. Fieldwork was undertaken between 9th - 17th April 2019. The survey was carried out online. The figures have been weighted and are representative of all adults in the Philippines online (aged 18+).
- In **South Africa**, total sample size was 1,000 adults. Fieldwork was undertaken between 5th - 15th April 2019. The survey was carried out online. The figures have been weighted and are representative of all South African adults online (aged 18+).
- In **Turkey**, total sample size was 1,000 adults. Fieldwork was undertaken between 9th - 17th April 2019. The survey was carried out online. The figures have been weighted and are representative of all Turkish adults online (aged 18+).
- In **Vietnam**, total sample size was 1,005 adults. Fieldwork was undertaken between 9th - 15th April 2019. The survey was carried out online. The figures have been weighted and are representative of all Vietnamese adults online (aged 18+).



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References

- [1] The Global Coal Plant Tracker provides a comprehensive database of coal power plant projects at different stages of development, available at <https://endcoal.org/global-coal-plant-tracker/summary-statistics/>
- [2] See NRDC, 2018, The Questionable Future of Overseas Coal Investments, available at <https://www.nrdc.org/experts/han-chen/questionable-future-overseas-coal-investments> and the Global Coal Finance Tracker at <https://endcoal.org/finance-tracker/>
- [3] See IEEFA, 2019, China at a Crossroads: Continued Support for Coal Power Erodes Country's Clean Energy Leadership, available at http://ieefa.org/wp-content/uploads/2019/01/China-at-a-Crossroads_January-2019.pdf This paper also includes summaries of coal power projects under development in the six countries included in E3G's polling analysis (among others).



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E3G is an independent climate change think tank operating to accelerate the global transition to a low carbon economy. E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change. E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere.

In 2018, for the third year running, E3G was ranked the world's fifth most influential environmental think tank.

More information is available at www.e3g.org