

Japan's opportunity to lead

To the editor — Japanese Prime Minister Shinzo Abe penned an op-ed¹ in the *Financial Times* last September, inviting other countries to 'Join Japan and act now to save our planet'. As hosts of the G20 Osaka summit, Japan is highlighting climate change and sustainable development. The government also promotes green slogans like 'Cool Earth 50' and 'Hydrogen Society'. However, to display true leadership on climate change, Japan must match its actions with its rhetoric.

Japanese leaders, unlike some of their counterparts in the United States and Australia, have consistently accepted the reality of human-centred climate change. In the 1990s, Japan was an energy conservation leader and played an important role in early climate change negotiations. Japanese industry has significant advantages in green technologies. For example, Mitsubishi Heavy Industries and Toshiba International are leading producers of geothermal power plants, and Japan pioneered the 'top runner program' to improve energy efficiency in consumer products.

However, Japan's track record on climate change mitigation has been disappointing. In absolute terms, before the use of flexibility mechanisms, Japan was the worst performing country under the Kyoto Protocol². Japan also ranks 116th out of 180 nations in the 2018 Yale University Environmental Performance Index for climate and energy³, and 46th out of 57 in the Germanwatch Climate Change Performance Index⁴.

In part, this reflects challenges caused by the 2011 earthquake, tsunami and nuclear meltdown at the Fukushima Dai-ichi complex^{5,6}. After the disaster, Japan shut down its nuclear plants, and reliance on fossil fuels increased from 65% to 84% of the energy mix⁷. However, problems with Japan's climate change policy run deeper. The government, in collaboration with firms like Marubeni and Mitsubishi, has aggressively promoted coal-fired plants at home and abroad. Although the Ministry of Environment has called for a halt of new coal-fired plants⁸, it is often overruled by the more powerful Ministry of Economy, Trade and Industry, which is reluctant to abandon

traditional energy sources. Japan has a carbon tax, but the rate is among the lowest in the world. A feed-in tariff scheme was implemented after the 2011 disaster, briefly accelerating renewables adoption, but the scheme was scaled back dramatically in 2016 (ref. ⁹).

Political impediments have been an important constraint on Japanese climate change policies. In the 1990s, Japan implemented institutional reforms that strengthened the voice of diffuse voters relative to narrow interest groups. Ironically, this undermined Japan's traditional energy conservation policies, which relied on imposing high, diffuse costs on energy consumption in transportation, electricity and household heating¹⁰. Instead, politicians competed to offer Japanese voters lower utility bills, gasoline taxes and highway tolls. As other developed countries raised the price of consuming fossil fuels, Japan moved in the opposite direction. Consequently, the old model of energy conservation is no longer feasible as voters refuse to tolerate higher energy prices¹¹.

To live up to its ambitious rhetoric, the Japanese government needs to develop a decarbonization strategy that does not depend on imposing high costs on the ordinary consumer. Japan should seek lessons from the United Kingdom, which has adopted ambitious decarbonization targets under the 2008 Climate Change Act. Even if price incentives are difficult to implement, administrative measures to promote decarbonization in power generation and industry remain viable options.

Large utility companies, like Tokyo and Kansai Electric, have long resisted renewable energy, which threatens to undermine the profitability of their conventional power plants. Japan has considerable, untapped geothermal energy potential, but installation is hampered by hot-spring operators. Prime Minister Abe has shown a willingness to confront powerful interest groups in areas like agriculture and corporate governance. He needs to similarly take on interest groups that resist decarbonization.

Japanese businesses and research institutes have important strengths

in green technologies. Public support for technological development and commercialization can help Japan to achieve compatibility between two of its stated priorities: environmental protection (including climate change mitigation) and economic growth¹². This would not only be a win in terms of domestic energy efficiency, but also in terms of exporting technologies abroad, where Japan can be a frontrunner in new products and markets¹³.

Now in his final term as Prime Minister, Abe is searching for a legacy issue. So far, he has focused on constitutional revision and a peace treaty with Russia, but these look increasingly unlikely to come to fruition. He should instead focus on putting Japan in a true leadership role on climate change. In the long-run, there will be no greater legacy. □

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References

1. Abe, S. Join Japan and act now to save our planet. *Financial Times* (24 September 2018).
2. Shishlov, I., Morel, R. & Bellassen, V. *Clim. Pol.* **16**, 768–782 (2016).
3. *2018 Environmental Performance Index for Climate and Energy Results* (Yale Univ. 2019); <https://epi.envirocenter.yale.edu/epi-indicator-report/CCE>
4. Burke, J. et al. Climate Change Performance Index (Germanwatch, 2019).
5. Lipsky, P. Y., Kushida, K. E. & Incerti, T. *Environ. Sci. Technol.* **47**, 6082–88 (2013).
6. Aldrich, D. P., Forester, S. & Horhager, E. *Environ. Pol.* <https://doi.org/10.1080/09644016.2018.1510216> (2018).
7. Sugiura, E. & Okutsu, A. Why Japan finds coal hard to quit. *Nikkei Asian Review* (21 November 2018).
8. Toda, M. & Kawamura, T. Japan to rule out coal-fired plants as international criticism rises. *The Asahi Shimbun* (28 March 2019).
9. Incerti, T. & Lipsky, P. Y. *Asian Survey* **58**, 607–634 (2018).
10. Lipsky, P. Y. & Schipper, L. *Energ. Pol.* **56**, 248–258 (2013).
11. Lipsky, P. Y. *J. East Asian Stud.* **12**, 409–439 (2012).
12. Hattori, T. in *Routledge Handbook of Japanese Foreign Policy* (ed. McCarthy, M. M.) 88–101 (Routledge, 2018).
13. Schreurs, M. in *Routledge Handbook of Japanese Foreign Policy* (ed. McCarthy, M. M.) 73–87 (Routledge, 2018).