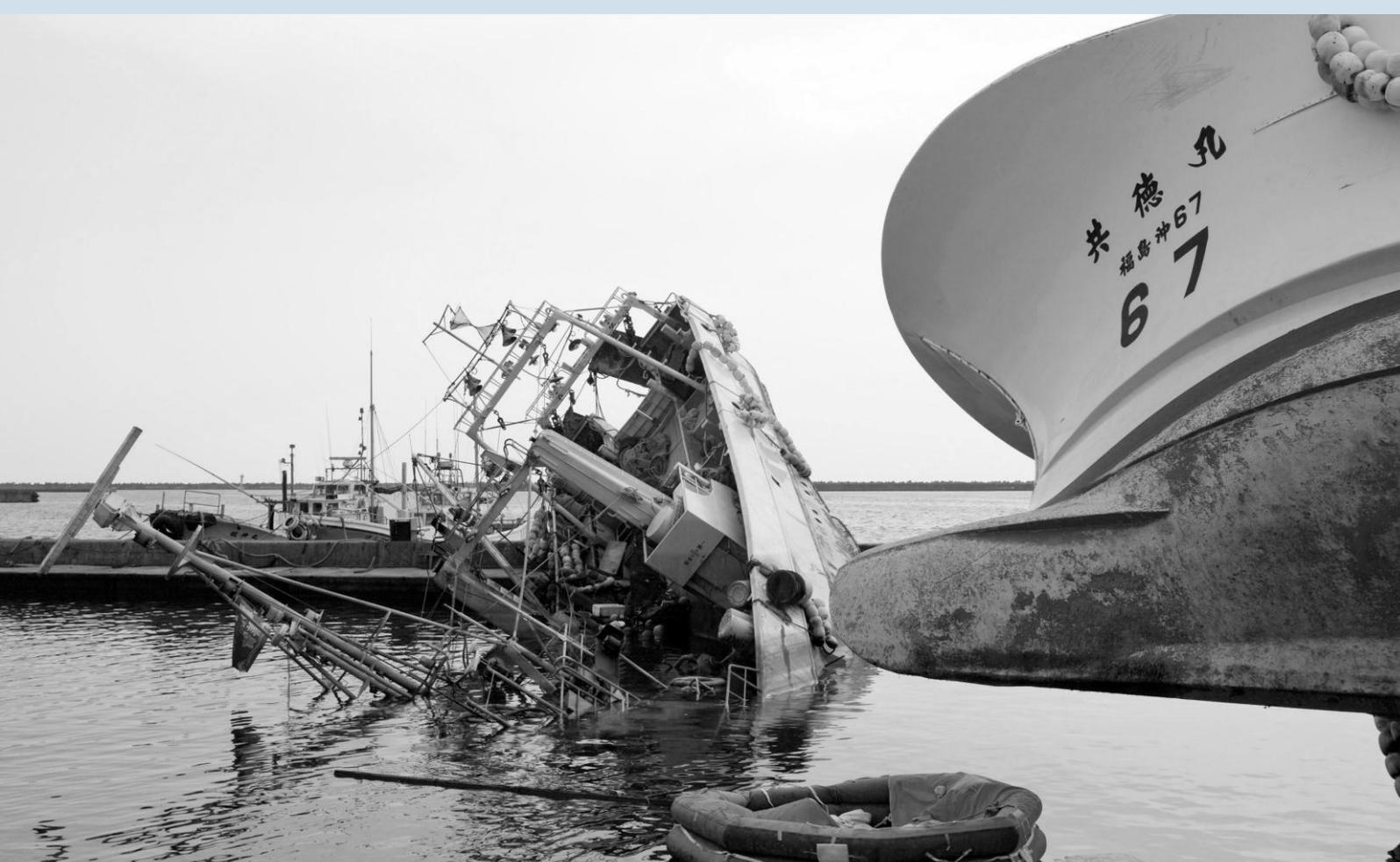


# Japan after the Quake: Prospects for Climate Policy

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- The triple calamity of 11 March 2011 has dealt a serious blow domestically to the credibility of the Japanese nuclear industry, putting the country's energy policy in flux.
- The severe impact on the country's infrastructure, the unwieldiness of its bureaucracy and the chaotic political situation preclude Japan's energy policy from explicitly re-orientating itself before the middle of 2012, but political consensus seems to be emerging that the country's mid-term pledge on emission reductions will need to be curtailed.
- The bill on renewable energy passed under Prime Minister Kan marked a step in the right direction, but was shallow and politically opportunistic. Its future impact on policy is uncertain.
- With other policy instruments on climate proposed by the Democratic Party of Japan toothless or abandoned, Tokyo's ability to engage in significant mitigation activities domestically is in question.
- Opposition to a second commitment period to the Kyoto Protocol remains firm; Japan will continue to pursue bilateral mechanisms outside the UNFCCC framework.
- Given its frail domestic policy and a stated readiness to act internationally outside multilateral frameworks, Japan's promise to carry out significant mitigation activities even in the absence of a clear and comprehensive post-2012 legal instrument should be viewed with a critical eye.

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During COP-16 in Cancún, Japan's firm rejection of a second commitment period to the Kyoto Protocol (KP CP2), 'under any circumstances and conditions' in the words of negotiator Arima Jun<sup>1</sup>, came as an unpleasant jolt to other negotiators – yet it cannot be said to have been unexpected. Japan's share of world greenhouse emissions, along with that of the Annex I countries covered by the KP, has been steadily decreasing. Tokyo has also long been disenchanted with the US rejection of the Protocol, and has refused in turn to join CP2, which would not bind its other main economic competitors, the emerging economies, to limit their ballooning emissions.

To take Tokyo's strong words as mere posturing and to believe that the looming post-2012 gap will eventually compel Japan to change its position would be a mistake. Most Japanese policymakers are of the firm opinion that the KP is in fact blocking the creation of a new, more effective instrument on climate change. While some Japanese may concede a certain lack of diplomatic tact, there is clear consensus on the spirit of the Cancún statement.

The tragedy of 11 March has not changed this stance. Japanese negotiators still stand by their Copenhagen pledge: to reduce GHG emissions by 25% from the 1990 level by the year 2020, conditional on a 'fair and effective international framework in which all major economies participate'. When confronted with arguments that the divide separating the major economies makes such conditions unrealistic, Japanese negotiators have offered assurances that their government would continue its activities to cut emissions even in the absence of a global deal. Before the earthquake, Tokyo's dedication to an expansive nuclear programme gave some credence to this claim; however, the political storm that arose in the wake of the Fukushima accident invites closer examination of the Japanese package of mitigation policies.

This paper examines this package in light of developments since the summer of 2010. The picture that emerges is that of a fractious polity, too absorbed with short-sighted infighting to develop a coherent and effective domestic strategy on climate. Meanwhile, Japan seems to be trying to channel its global-level efforts away from the cumbersome multilateral framework and towards untested directions. This gives rise to concerns about Tokyo's ability to contribute meaningfully to climate change mitigation in the midterm – whether domestically or abroad.

## Immediate impacts of the natural disaster

The unprecedented earthquake that struck Japan on 11 March 2011 reached magnitude 9 and triggered a tsunami wave that reached as much as 40 m at its highest point, sweeping as far as 10 km inland. As of the middle of July, the government reported 20,662 dead and missing. This is undeniably the worst catastrophe to befall Japan since the Second World War.

The earthquake severely affected the country's energy infrastructure. It took some 24.8 GW of generating capacity offline, of which approx. 11.3 GW nuclear, with the most serious accidents occurring at the now notorious Fukushima Daiichi ('Number One') plant run by Tokyo Electric Power (TEPCO). This particular incident alone led to the evacuation of over 200,000 people. The event was eventually rated highest on the International Atomic Energy Agency's nuclear and radiological event scale. The sheer scale of incident, compounding a natural catastrophe of historic proportions, reduced the reputation of Japan's nuclear power industry to tatters, especially when it became clear that TEPCO had ignored repeated warnings, from both domestic and international sources, to take precautionary measures at the Fukushima plant.

TEPCO is now facing damage claims expected to rise to the vicinity of 10 trillion yen (ca. EUR 89.4 billion), against a net asset value of 2.5 trillion yen (ca. EUR 22.3 billion). A special law

<sup>1</sup> Names are given in the Japanese order, with family name first. Hepburn Romanization is used.

had to be passed to keep the company from legal bankruptcy, with the Cabinet on June 14 formally taking the decision to take over TEPCO's management 'for a certain time' – said to mean at least 10 years. The government also agreed to set up a state-backed institution to help TEPCO provide compensation to those affected by the accident.

To make matters worse, fears soon emerged that a summertime gap might emerge between peak demand and maximum available supply. To make up for the shortfall, emergency gas-fired generators were leased from abroad; factory in-house generators were marshalled into feeding power into the grid; and an administrative order was issued to the businesses in the Keidanren (Japan Business Federation) to come up with voluntary methods for reducing their peak consumption by 15% from the previous year.

Sensing a shift in public opinion, Prime Minister (PM) Kan Naoto ordered an unrelated power utility, by means of a 'request' entirely lacking any legal basis, to shut down the nuclear plant at Hamaoka. This plant was thought to have a 90% chance of being struck by a Fukushima-like disaster within the next 30 years. Further, in an unexpected move, Kan also requested on 10 May that the country's Basic Energy Plan (BEP) be revised 'from scratch', in order to place much greater emphasis in Japan's energy strategy on energy efficiency and on renewables.

### Japanese politics: shooting itself in the foot?

After the June 2010 premiership transition from the ineffectual Hatoyama Yukio to Kan, the DPJ has seen its ability to govern progressively dwindle. The party had long suffered from an internal split over an alleged corruption scandal involving its powerful lawmaker Ozawa Ichirō, which grew only worse in the time prior to the earthquake. The opposition, in control of the Upper House since July 2010, pressured Kan to force Ozawa to testify in the Diet about his scandals, aggravating an already dangerous intra-party rift. This forced the Cabinet to fight a two-front war, both maintaining crumbling party unity and appeasing the uncooperative opposition parties. The two largest of these the Liberal Democratic Party (LDP) and its *de facto* ally the Clean Government Party (CGP, also known as New Kōmeitō), refused to engage the DPJ in constructive law-making, instead demanding

early elections and the resignation of senior figures at every opportunity.

In May the LDP and CGP capitalized on the growing discontent that relief and reconstruction efforts in the disaster-affected North-East were moving slowly and that information about danger levels was difficult to come by. They tabled a no-confidence motion against the government, but their hopes of co-opting the group of disaffected Ozawa allies in the DPJ were met by a deft last-minute promise by Kan to resign on his own – in his own time.

After a tense summer, the last of Kan's conditions for resignation was fulfilled when a bill on renewable energy was finally passed on 26 August. It remains an open question what added value his replacement, Noda Yoshihiko, Japan's sixth PM in five years, can bring. The new administration has merely re-shuffled the same senior DPJ politicians into new Diet and Cabinet functions. The most salient feature of intra-DPJ politics is how different politicians relate to Ozawa.

Sooner or later, Noda will have to find a way to balance public's intense dislike of nuclear power with the pressures from the business community to defend the stability of the country's power supply. There is little to indicate that anybody has given serious thought so far about how to mitigate this tension. On the contrary, while the DPJ tried in 2009 to enhance policymaking by concentrating powers related to it in the hands of the Cabinet, the trend now seems to be to increase the role of the party. This is bound to subject the endorsement of policies to factional infighting and contribute little towards solving Japan's many serious problems.

The DPJ was swept into power after successfully marketing itself to the public in contrast to an incompetent LDP and an out-of-touch corps of civil servants, but has since proven unable to produce policy effectively. It relies instead on image management, continuously producing new initiatives as the popularity of a previous one diminishes or a new political hurdle becomes evident. Examples include the second round of budget reviews to cut wasteful spending under Hatoyama, and the Trans-Pacific Partnership under Kan, both of which were introduced when the respective administrations' approval ratings started flagging. To that list can be added Kan's stance on renewables. The presence of multiple voices within the DPJ speaking in favour of restarting Japan's nuclear power plants as soon as possible show that its politicians are currently

unable to make up their minds about where Japan's energy policy ought to be heading.

### Energy policy in flux

While Kan's support ratings turned sour by the end of the summer, his basic policy direction did not. His decision to shut down Hamaoka was supported in May by 71.2% of the public and even gained praise from some notable industrial CEOs. In June, 74% of the public also agreed that Japan's nuclear reactors ought to be gradually dismantled. Few decisions by earlier prime ministers ever achieved such levels of support.

And yet, Japan is heavily reliant on nuclear power, which supplied up to 30% of its electricity in 2009, or 11.5% of its total primary energy supply (TPES). The second revision of the BEP is explicitly meant to increase Japan's reliance on nuclear power to 53%. Yet while this is to be achieved by increasing Japan's nuclear capacity by 14 reactors by 2030 and increasing their rate of operation to 90% (a 30 percentage point improvement on current levels), only 19 of Japan's whole complement of 54 reactors were in operation as of early July 2011, due to a combination of emergency shut-downs and delays in reactor restarts. The formal power of local assemblies to give the green light to nuclear projects has led to complications. Between mid-May and early July, permits for restarts and licenses for construction of new reactors were refused in four different prefectures, whereas Osaka City, the topmost shareholder of Kansai Electric Power, invited the company to consider halting its nuclear activities. Without a solution to the stalemate between the local and central level, by April 2012 all of Japan's nuclear reactors might go offline, with potentially extremely severe consequences for the country's economy.

This is particularly relevant for the promotion of renewables. 'Natural energy sources' (solar, wind and biomass) and geothermal accounted for only 0.4% of Japan's TPES in 2009. Given the strong opposition to nuclear power and the very long road to the 20% share of renewables promoted by Kan in May, maintaining the stability of Japan's energy supply poses a formidable task.

It is not entirely clear yet who will be drafting this new BEP. Typically this matter has been entrusted to the Agency of Natural Resources and Energy (ARNE) of the Ministry of Economy, Trade and Industry (METI); however, now the

National Strategy Office under the Cabinet and the Energy and Environment Commission, both headed by Minister Furukawa Motohisa, can be expected to weigh in. Furthermore, in late August, the National Atomic and Industrial Security Agency (NISA) was detached from METI and integrated into the Ministry of Environment (MOE) in an attempt to correct for the agency's idiosyncratic role of both promoting and overseeing nuclear power operators. This potentially gives MOE a voice as well. In any case, given the crowded field and the intensely political nature of the issues involved, the actual drafting may well take place far removed from public view, as happened in the case of the 2010 BEP as well.

Complicating the matter is the government's apparent decision to settle TEPCO's debts by selling off its transmission grid. This reopens the long-simmering question whether all of Japan's 10 regional power utilities, in effect vertically integrated regional power monopolies, should be forcefully unbundled. These power utilities have long opposed allowing renewable energy to be fed into their transmission lines, on the grounds that frequency fluctuations might affect the overall stability of their energy networks. Conversely, voices favouring renewables typically also call for unbundling as well. The utilities, wielding formidable political influence, have naturally been opposed to this type of forced asset stripping for two decades, but the sheer scale of TEPCO's reparations budget has now turned the tables on them. However, as with the other aspect of energy policy reform, the details are unclear – especially as to whether the other utilities will face unbundling as well – and the discussion seems more political than objective and orderly.

### Domestic climate policy: disjointed and weak

Soon after gaining power in 2009, the DPJ tried to create a framework for Japan's climate-related policies and measures in the form of a Basic Law on Global Warming. Upon enactment, this bill would have anchored Japan's Copenhagen pledge domestically, decreeing that three policy instruments – a mandatory nation-wide emissions trading scheme (ETS), a carbon tax, and a feed-in tariff (FIT) for renewable forms of energy – be implemented, and that a plan be compiled to coordinate the government's actions to achieve the pledge.

This law became trapped by the DPJ's political misfortunes in Diet committees and has not yet been passed. In late 2010, as it became obvious that the DPJ was unable to pass any of its signature policies, opposition from industry intensified against the most high-profile climate-related policy instrument, the ETS. Two weeks after Japan's forceful statement in Cancún, the DPJ capitulated, effectively postponing implementation of the ETS *sine die*. Moreover, the carbon tax, to be charged starting October 2011 and gradually raised during the coming years, turned out to simply involve replacing a pre-existing tax on oil and coal. Raising petrol prices by less than 1 yen (0.8 eurocents) per litre, it has little practical impact. Whether the new renewables law, passed in the final days of the Kan administration, will actually increase the share of renewables in Japan's energy supply is still unclear.

An FIT had been proposed on the very last day of the LDP regime in 2009, but it targeted only small-scale solar power. The new law expands the scope of the FIT to other forms of renewables as well, but it continues to allow utilities the right to refuse to purchase power if they deem it potentially damaging to their transmission infrastructure. While the actual tariff will reflect generation costs, its actual level and the duration of the power-purchase agreements will be subject to yearly reviews, with no exact implementing regulations expected before 2012. Furthermore, a host of regulations (city planning, water rights, access to national parks, building codes, etc.) still need to be reviewed in order to make it easier to obtain permits for setting up renewable energy generation facilities. Since the central government has made no discernible effort to revise these regulatory hurdles in a systematic manner, the effectiveness of this instrument remains uncertain.

Meanwhile, other possible avenues for mitigation policy beyond those initially proposed by the DPJ remain practically off the political radar. A particularly egregious example, remedying the poor insulation of the country's housing stock, suffers from the complete lack of relevant building codes.

The climate package crystallizing in Japan seems therefore not only weak, but, in the absence of a Basic Law, also uncoordinated. With the emergent *de facto* moratorium on nuclear expansion, this raises questions about Japan's ability to reduce emissions by 25% from their 1990 level by 2020, as specified in its Copenhagen pledge. Thus far, Japan has not office-

ally changed its stance, but there are several indications that the pledge will be revised. Already during the Bangkok climate talks in April 2011 Minamikawa Hideki, Administrative Vice-Minister of MOE, admitted that the matter would, as a highly political issue, probably be taken up by the Diet.

Senior decision-makers privately admit that recent events make Japan's pledge look increasingly unsustainable. Public opposition to nuclear power is especially worrisome. Should all nuclear be shut down, projections for Japan's emissions in 2020 jump up by 230 Mt of CO<sub>2</sub> (19% of 1990). Another 5 percentage points are expected if the nine planned plants fail to go on-line. However, without a new BEP it is ultimately not possible to run the projections required for evaluating Japan's post-Fukushima pledge.

This new BEP will need to strike a balance between the still relatively expensive renewables and nuclear power, which had been praised until recently for its cheapness. Yet with clean-up costs potentially spiralling to as much as 6–20 trillion yen (ca. EUR 54–178 billion) and the still unsolved problem of where to store Japan's spent nuclear fuel, arguments for the cheapness of nuclear power appear weakened. METI has announced that the new plan might be available by mid-2012. This is an earliest possible date, as Japanese decisionmaking requires consultations with a wide range of stakeholders. Before that date it remains difficult to evaluate what changes might intervene.

Assuming that the Diet passes the Basic Law on Global Warming by that time, a new pledge might be formulated by COP-18. With methodologies on carbon sinks after 2012 up to the COP, as well as the uncertainty surrounding carbon markets and a still evolving domestic policy package, planning how to meet that pledge might have to wait for 2013. The country's past reliance on UN-backed carbon credits would indicate that Japan will lean heavily on market mechanisms to meet even its diminished pledge.

### Unyielding position internationally

While the fate of their pledge is unclear, the stated ultimate goal of Japanese negotiators remains unchanged: to establish a new global, comprehensive, fair and effective framework, in which all major economies would participate. Furthermore, while quite happy with certain elements of the old Protocol, such as

the use of flexibility mechanisms or the reporting system, the negotiators' disinterest in KP CP2 is genuine. Pointing to the ballooning emissions of developing countries, Japan views discussions on extending the old Protocol as draining efforts away from establishing a more effective arrangement.

Non-Japanese negotiators should recognize that prospects for change are slim. Japanese diplomatic history reveals a fondness for rigid conditional offers coupled with a dislike of negotiating bluffs. Japan's positions are typically close to its actual strategic goals, leaving little room for bargaining. This is because the stubborn infighting between Japanese ministries easily spills over into the international arena, limiting the set of tactical manoeuvres available to the delegation to what all the concerned ministries have agreed to endorse in advance. Changing positions in response to fluid negotiations is not typical of Japanese behaviour. Furthermore, despite the fractious compartmentalization of the Japanese corps of civil servants, all the ministries involved in climate negotiations – MOFA, METI and MOE – uniformly endorse their country's stance and are unlikely to break ranks. Finally, with the US completely uninterested in the KP, and with Russia and Canada flatly refusing to join CP2, it is difficult to see why Tokyo should see itself as diplomatically isolated at this point. If anything, having laboriously crystallised a negotiating position, Japan is likely to refuse steadfastly to compromise unilaterally until other parties have made concessions first.

Acknowledging the sterility of discussing the form of the legal instruments, Japan believes that the only meaningful contribution to the negotiations is to engage in constructive discussions on the items listed in the Cancún Agreement – technology, finance, capacity building, flexibility mechanisms, MRV and ICA, etc. Bristling against what it perceived as attempts by developed countries to fruitlessly revisit the Bali Action Plan, Japan viewed the April 2011 meeting in Bangkok as 'shockingly unproductive'. The slow pace in Bonn in June led to further disappointment.

For a country so heavily reliant on offsets for meeting its emission target, the slowness of KP's flexibility mechanisms to generate credits has long been a source of frustration – and an increasingly serious concern given the scale of cuts required by 2020 and the uncertainty surrounding the future of nuclear power in Japan. MOE, METI and the Ministry of Agriculture, Forestry and Fisheries are conducting over 30 feasibility studies on institutional

designs of new flexible mechanisms (NAMAs, REDD+, etc.) in various developing countries. Japanese project planners would like to submit their ideas from these feasibility studies to the discussions on new flexibility mechanisms in Durban. However, consensus seems to be developing that, should the COP not accept such suggestions, Japan would have no option but to pursue other avenues, such as bilateral offsetting mechanisms, which Japan is already actively preparing with a number of countries.

On a visit in Tokyo in late February 2011, UNFCCC Executive Secretary Christiana Figueres mentioned three aspects of these mechanisms that required further clarification: the methodologies to be employed, the credits' fungibility, and the avoidance of double-counting. Furthermore, while Japanese project developers insist that bilateral projects would be subject to third-party verification according to standards already being implemented in Japan (ISO14064 and ISO14065), it is easy to see how cutting out the UN middleman might open the door to moral hazard in the form of green-washed ODA and FDI. It will require a significant diplomatic effort to reassure the other parties that Japanese verifiers will evaluate in unswerving and impartial good faith Japanese projects that generate Japanese credits (and potentially even Japanese profits) towards a non-binding Japanese pledge. The success of this effort is likely to depend on the manner in which other Annex I Parties formulate their own bilateral initiatives.

Executive Secretary Figueres criticized Japan for ignoring domestic developments in China, India, Brazil and Indonesia, but Japan ultimately seeks some form of formal parity between its obligations and those of emerging economies. Without apparent progress on MRV and ICA, the danger that Japan might go as far as to exercise a veto on a COP decision for a political extension of the KP cannot be dismissed. Past experience would indicate that Tokyo would compromise on this crucial point only if pressures revealed that an anti-Japan coalition was about to emerge and that obstinacy was no longer a safe policy. However, while wary of developments in the EU, Japanese decision-makers currently deem this unlikely and seem determined to stay the course.

## Conclusion

Despite their common intransigence on Kyoto second commitment period, Japan should not be put into the same basket as Russia and

Canada. While the Canadian pledge is a net increase from 1990 and the Russian is a net increase from today, the Japanese pledge is in line with IPCC recommendations. Beyond that, however, observers should maintain a critical view on Japan's promises to engage in mitigation up to 2020.

While Japan's assertions about the effectiveness of the Kyoto Protocol are entirely valid, its resolve to abandon the world's single binding legal instrument on climate change invites close scrutiny of its promise to continue mitigating. So far Japan has not put forth anything beyond its conditional Copenhagen pledge. If China and the US, perhaps also India, are not brought into some form of global deal, Japan reserves the right to decide freely how much of its emissions it will cut. This will not become clear for at least one more year, until the country's new Basic Energy Plan has been formulated.

Furthermore, without a Basic Law on Global Warming and a plan coordinating domestic policy instruments, just how Japan means to achieve its abatement goals remains unclear. So far, all the climate policy instruments pushed by the Democratic Party of Japan, relying on economic stimuli that would ultimately raise energy costs, have been rendered ineffective by opposition from powerful stakeholders. Energy policy remains therefore the only channel through which Japan's GHG emissions could be cut.

There can be little doubt that a political way will be found to restart most of the country's idled nuclear plants, but it is difficult to infer anything beyond that. Stakeholders seem to have bunkered down around their respective positions and are talking past each other on a great many pivotal issues: the economic potential for renewables in Japan, the desirability of changing the country's energy mix, or its role in fighting climate change internationally. Historical examples from other policy areas show that when particularly severe internal wrangling persists, Tokyo's ability to contribute to international negotiations in a constructive manner suffers.

It is incumbent on Japanese politicians of all parties to agree in a mature manner on a way forward, as it is on them that revising the regulations on the FIT, unbundling the power sector and passing the Basic Law on Global Warming all depend. As long as they remain preoccupied with short-sighted infighting, Japan's climate policy will remain subject to unpredictable political winds in the Diet. With ministries lacking consensus and politicians unable to exercise leadership, climate legislation will remain ineffective and incoherent, and climate diplomacy cumbersome.

That Japan takes its international pledges seriously is beyond dispute. However, as long as their country's contribution on the international level remains untested, with its pledge about to be reduced and its domestic policy package looking weak, Japanese decision-makers will have to work hard in order to maintain credibility and trust in the UNFCCC forum.

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### **About the author**

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