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The G8 Mirage: The Summit and Japan's Environmental Policies

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As chair of the G8 this year, Japan will host the group's annual summit. The meeting convenes in the Hokkaido resort town of Toyako from July 7th to the 10th. With Wall Street's worsening financial meltdown spreading through credit categories and far out into the real economies of many G8 members, the summit will focus on economic issues. But the environment remains on the agenda, especially as the world moves towards a post-Kyoto agreement. There isn't much time. The current Kyoto Agreement on reducing greenhouse gas emissions is effective from 2008 to 2012, and the deadline for a new climate treaty is December 2009, at the Committee of Partners meeting in Poznan, Poland.

Lake Toya (Toyako) is part of the Shikotsu-Toya National Park

Japan has sought, quite appropriately, to use the summit as an opportunity both to demonstrate leadership and shape the substance of the next treaty. At the very least, one has to be thankful for Japan's desire to act. Climate change is accelerating, as are the emissions that drive it. But at the same time, serious action is being ushered from the centre of the global debate by the usual suspects while the shockwaves coming from concatenating crises in finance, energy and food profoundly shift the agenda.

In these circumstances, it is fortuitous that several overseas publications have seen fit to run articles on Japan's approach to the environment. But some articles have perhaps been too hortatory rather than analytical (to borrow Chalmers Johnson's two-decades-old description of exuberant works on Japan). On May 21, for example, Canada's respected Globe and Mail ran a piece by one of its star columnists, Marcus Gee, who lauded Japan for an "energy plan" that "makes a lot of sense." Gee argues we should look to Japan as a model because of its "remarkable success at reducing its dependence on oil." Gee correctly notes that "Japan relies almost completely on foreign sources for its oil, coal and natural gas," making the incentives it confronts quite different from those of the comparatively resource-rich Americans and Chinese.

He also stresses that Japan has ratcheted down its oil dependence from 71 percent of total energy in 1975 to 46 percent now, and that the country did this by shifting a great deal of energy production to nuclear power, natural gas and coal. And Gee praises Japan for its initiatives in alternative energy, including its current efforts to develop the plentiful reserves of methane hydrate that lie on the sea-bed around the country and elsewhere on the planet.

In the June 12 Asia Times, the highly regarded journalist Dilip Hiro follows up this praise for Japan's energy policies with an argument that the Europeans and North Americans need to "emulate Japan to cope with oil shocks." According to Hiro, Japan is notable for "its consistent drive for energy efficiency and alternate sources." He argues that Japan's energy efficiency, in steel production and other processes, is far superior to that of China and America. He reminds us that "Japanese cars offer better fuel efficiency than American cars" and adds that "oil usage in Japan has dropped by 15% over the past dozen years." Hiro concludes from these comparisons that "the United States and other Western nations ought to follow the example of Japan to bring about savings in oil consumption which can then satisfy the rising demand in China and India without causing a price explosion."

These assertions are echoed, indeed amplified, in the most recent domestic-oriented commentary from the Japanese establishment. Hence the long-time (eight electoral wins) Liberal Democratic Party (LDP) Diet member Nakagawa Shoichi declares in the June 2008 edition of the monthly "Voice" that (translating from the Japanese) "Japan leads the world in energy efficiency and, through its hard work, has achieved the world's premier level of environmental quality." Keep in mind that Nakagawa was Minister of Economy, Trade and Industry from 2003 and 2005, thereafter being appointed Minister of Agriculture and then head of the LDP Policy Affairs Research Council. He is thus expected to be at least minimally knowledgeable about Japan's merits and demerits on the energy and environmental fronts.

The July edition of another major monthly, Ushio, carries similar claims from former Koizumi-era fix-it man Takenaka Heizo, who among other posts served as Minister of State for Postal Privatization and for Economic and Fiscal Policy during the Koizumi years. Takenaka is now back to his professorial duties as an economist at prestigious Keio University, and heads up the same university's Global Security Research Institute. He titles his article "The Solution to the Environmental Problem is in Japan" and declares that Japan is "the only country in the world that can solve the global environmental problem." The empirical basis for this argument is Takenaka's contention that Japan is so energy efficient that, in order to produce a given unit of GDP (whether measured in dollars or yen), Japan emits "half the level of the Western countries."

A similar spirit animates comments found in the July edition of Gaiko Forum, the voice of Japan's foreign affairs elite. In it, Kohno Masaharu, the Deputy Minister for Foreign Affairs, lays out the core of the Japanese Government strategy in a dialogue with an editor of the Asahi newspaper. Contrary to popular wisdom, Japan's support for the Kyoto Agreement has always been questionable, to the point where the previous (2001 to 2006) government of PM Koizumi Junichiro seriously considered abandoning it to placate the Bush regime (in the spring of 2001). The Japanese elite enjoy the brand-name benefits conferred by "Kyoto," but have made little attempt to meet its explicit targets or achieve its proposed trajectory towards more stringent and comprehensive mechanisms. Kohno seeks to rationalize this in his insistence that there is little merit in setting what he deems to be divisive, long-term targets for emissions cuts.He claims that a better strategy is harnessing capital and technology to achieve a nebulous scheme of "sector-based" reductions. This approach is the Japanese political and business elites' alternative to Kyoto, which Kohno criticizes as based on European top-down management and lacking in the realism necessary for global agreement. He proudly points out that Japan's "sector-based" approach is being developed now, via direct negotiation with industry and expresses confidence of success.

In short, there has been increasing domestic and overseas news coverage on Japan's environmental efforts. The impression conveyed by these articles is that Japan is leading the world out of the oil age. Japan is purported to be at the head of the industrialized world in environmental quality, energy efficiency, and breakthroughs in renewable energy. It is even depicted as building a framework that will carry us, post-Kyoto, into a more sustainable future.

Just the Facts, Please

These statements are simply untrue. Japan is not leading us out of the oil age. In fact, among the big OECD countries, Japan is extremely vulnerable to the mounting risks of our oil-dependent era. Table 1 shows that among the major OECD economies, Japan is only second to Italy in its 48% dependence on oil in its primary energy mix. [1] Like many of the other large economies portrayed in the table, Japan relies on imports for virtually all of its oil supply. But Japan's 89% reliance on the increasingly unstable Middle Eastern oil producers simply has no parallel among the major OECD countries.

Table 1: Dependence on Oil, Imported Oil, and Imports from the Middle East, 2004

	Japan	US	UK	Germany	France	Italy
Oil Dependence	48	40	35	37	34	53
Import Dependence	100	64	-34	97	103	93
Dependence on ME	89	21	4	7	27	34

Source: METI, Energy White Paper

And note table 2, which compares Japan's energy intensity, energy efficiency and GHG emissions (measured per-capita and per unit of GDP). Most of the data are for 2004, and have almost certainly not changed appreciably in the interim. The energy intensity data are for 2005, and measure total primary energy consumption (in British thermal units) per USD 2000, calculated on a purchasing power basis. We see from the table that Japan's performance is at best on a par with the big EU countries. No matter what political rhetoric and conventional wisdom suggest, Japan is not the globe's "top-runner" in the energy and environmental fields.

Table 2: Energy Intensity (2005), Consumption, CO2 Emissions Indicators 2004

	Japan	US	UK	Germany	France	Italy

As to efforts to prevent climate change, per se, Japan is also behind

Energy Intensity	6539	9113	6048	7243	7021	5788
Ton Oil Equiv/Capita	4.18	7.91	3.91	4.22	4.43	3.17
TPES/GDP (PPP)	0.16	0.22	0.14	0.16	0.19	0.17
Tonnes CO2/TPES	2.28	2.49	2.30	2.44	1.42	2.51
Tonnes CO2/Capita	9.52	19.73	8.98	10.29	6.22	7.95
CO2/GDP (PPP)	0.35	0.54	0.32	0.39	0.23	0.31
Source: International Energy Agency (IEA Statistics). Note: all data 2004, PPP=Purchasing Power Parity, TPES=Total Primary Energy Supply						

most of its developed-country counterparts. The well-regarded German Watch's Climate Change Performance Index - a "comparison of emissions trends and climate protection policies of the top 56 CO2 emitting nations" – ranks Japan in 42nd place for 2008. The index weights emissions trends at 50% of the overall score, followed by emissions levels per se (30 percent weighting) and climate policy (20 per cent weighting). [2] Japan's performance actually dropped from 39th place in 2007 whereas China moved up from 44th place in 2007 to 40th place in the 2008 index.

Particularly significant is Japan's poor performance in energy consumption trends. The highly respected Statistical Review of World Energy 2008 (published by British Petroleum) is worth a look. Note that its page 40 chart on primary energy consumption trends reports that Japan's energy consumption rose considerably between 1997 and 2007 (from 506.6 million tonnes of oil equivalent to 517.5 tonnes). Meanwhile Germany (337.8 to 311), Denmark (21.7 to 18.2) and other environmental leaders cut their energy consumption. And they achieved this even as their populations were growing (cf. Japan, whose population is shrinking) and their economies were growing faster.

Many Japanese sources – and their echoes overseas - assert that Japan has a commanding lead in energy efficiency. However, the basis of the latter claim is a chart that summarizes International Energy Agency (IEA) data using market exchange rates to compare efficiencies between Japan, the EU, the US and several other entities. This particular chart is a favourite among Japan's business bureaucracies and lobbies (for example, see page 24 in this June 2008 MOFA powerpoint). But the chart has two glaring faults. One is that the EU is a region that groups several quite energy-efficient and several less-efficient economies. The other is that – as the IEA itself recognizes in its 2007 "Energy Use in the New Millenium: Trends in IEA Countries" - PPP comparisons are the international standard. Note that in table 2 above we have several measures to get a clearer picture of Japan's comparative CO2 emissions and energy intensity. We can see that the Japanese establishment's rhetoric about low emissions is grossly exaggerated.

Japan is, of course, renowned for its world-beating automobile manufacturers, especially the hybrid cars produced by Toyota. But it is actually in mass transit that Japan has managed to gain significant efficiencies relative to its counterparts in the developed world. In contrast to the European countries, Japan does not have to rely so much on high fuel taxes to curb fuel consumption. Japan's highly concentrated population, especially in the major urban conglomerations (e.g., Tokyo and Osaka) has led to massive scale economies as well as reduced usage of personal automotive transport. The same 2007 report of the International Energy Association notes that "despite a lower average fuel price than countries in Europe, Japan has the second-lowest energy use per capita." This can be attributed to the high availability and extent of mass transit, and to low travel per capita (Japan is densely populated and travel distances are shorter than in many other countries). Further, "Japan's low car fuel use per capita relative to fuel price results from modest car use, not from low fuel intensity." In short, Japan's current fleet of motor vehicles is not particularly efficient. [3] But there are attractive substitutes in the reliable and very well-diffused network of trains, subways, buses and other mass transit. And the density of urban areas also reduces the distance that car owners drive.

Future Toyota Hybrid

It would certainly be wonderful if the rhetoric were true and Japan were in the lead on the environmental crisis. Self-interest and idealism find a comfortable correspondence here. This is because energy is a US$ 6 trillion per year business, fully one-tenth of global GDP and rising. And the growing importance of "green tech" and "green collar" jobs suggests that whichever country leads the environmental and energy sectors will have permanent tenure at the top of the global economy. This has important implications in many spheres. For example, paying down Japan's grossly swollen public debt (about 180% of GDP versus roughly 50 to 60% for the other big OECD countries) could thus be funded out of strong growth rather than by continuing to cut services and shift yet more risks (of ageing, illness, unemployment, and the like) onto the vulnerable elderly, the unemployed, and the untrained. Japan's current economic and social policies threaten widening inequities and the rising crime and political nastiness that are its concomitant.

Moreover, for Japan to be in the pole position would be common sense as well as welcome good news in an otherwise very depressing year. It would be common sense in particular because Japan has, as Gee and others correctly emphasize, virtually no fossil fuel reserves, is far from its oil suppliers in the Middle East, and has a history of smart public policy in response to oil shocks. It would also be welcome news because - even after a steadily lengthening "lost decade" - Japan remains a most valuable player in global manufacturing, innovation and finance. To have Japan, the country that recast political economy, geared up to lead us out of the oil age would be a strong wind in our collective sails.

Listening to Japanese Experts

However, the data show that there are problems with the standing ovation from overseas as well as the self-congratulatory accounts. For more balance, and keen insights into the reasoning that underlies the Japanese establishment's distortions, consider what Japanese environmental experts have been saying. On June 7, two leading environmental and climate change policy analysts appeared on the Asahi cable television network's program "Don't be misled by the news" (full disclosure: the present author is a regular guest on the show). These two experts were Iida Tetsunari, head of the Institute for Sustainable Energy Policies, and Kameyama Yoshiko, a researcher at the University of Tokyo-based National Institute for Environmental Studies. Iida has been a key player in environmental policymaking and analysis for several years. His experience of a "reverse course" (towards market fundamentalism) in the central government since 2001 led him to shift to working at the regional level. He is currently a core member of the Tokyo Metropolitan Council on the environment. His institute works with such well-regarded international bodies as REN21, so Iida plays a pivotal role in aggregating information on advances overseas and disseminating these to policymakers and other audiences in Japan.

Kameyama is also well versed in environmental and energy challenges. Her institute last year published a very important study which showed that, given appropriate policy decisions, conventional renewables technology (i.e., already existing) could achieve a 70% cut in emissions by 2050.

The two analysts described in compelling detail the problems with Japan's current policymaking. Moreover, their criticisms were rooted in the internationally recognized data used above as well as critical engagement with the policy process. In sharp contrast to the above articles in the foreign and domestic press, these analysts show that Japan is in fact slipping dangerously far behind. The core of the problem is that, in contrast to most of the EU countries, as well as a swathe of US states and localities, Japan is largely leaving market actors to determine their own responses to the environmental challenge. Thus, while Germany has compulsory emissions cuts and "feed-in tariffs" (FIT) that have become the global gold standard in creating incentives for renewable energy, Japan has focused on a "voluntary action plan" led by the corporate peak association Keidanren. A measure of their respective merit is the fact that Germany's FIT has been adopted by 47 countries (and is now pending in the US Congress) whereas Japan's voluntary approach is nowhere regarded as an appropriate model.

Iida and Kameyama both lamented the setbacks that have resulted from Japan's minimalist environmental and energy policies. Japan's poor record has gone largely unnoticed by the media in Japan and overseas in part because of the huge shadow cast by America's profligacy with energy and the Bush regime's efforts to deny climate change and perpetuate the oil age.

But note that the current Fukuda Administration, following the earlier Abe Administration, continues to avoid emissions cuts by speaking of some percentage (currently 60 to 80 percent) by 2050, but without specifying a clear reference year such as the generally used 1990. With no reference year, the target year and percentage to be cut are meaningless as policy, and dangerous distractions as politics.

Iida and Kameyama also emphasized the fact that Japan will not even meet its current 6 percent (versus 1990) Kyoto target of emissions cuts. This is a serious embarrassment for the LDP government, and one it is desperate to hide. Under Koizumi (2001-2006), there was a focus on moral suasion (e.g., the "cool biz" encouragement of removing neckties) and other voluntary actions that left core problems unaddressed. The Koizumi people, pushed by the electrical utilities and Keidanren, rejected meaningful and mandatory targets for clean energy production. [4] In 2005, they also axed a very effective and small subsidy for household adoption of solar energy, and Japan promptly lost its dominance in solar to the Germans. Iida argues that Japan now risks falling behind the Chinese as well, and perhaps quite soon.

There appear to be several reasons that Japan is now pursuing the sector specific approach. For one thing, as Iida explained, the Japanese business community is convinced that the country got a raw deal from Kyoto. Forgetting that Japan secured a raft of special exemptions for itself (especially in the summer of 2001), the Japanese establishment sees only that the Americans and others (especially the Chinese and the Indians) opted out of the agreement. There is also a strong belief that the Europeans (many of whom appear able to meet or exceed their Kyoto targets) have achieved this simply by modernizing East European industry and trading carbon credits.

Indeed, the Japanese establishments' own failure to meet their low emissions cuts has provoked an emotionally nationalist discourse that Japan got the short end of the stick compared to the wily Westerners. Kyoto is increasingly being labeled as unfair or gimmicky. But Iida and Kameyama compared these claims to the frustrated rants of a failed student who had plenty of time to study for a test and simply did not bother. Certainly it is clear that many Japanese elites feel isolated and alienated in the face of the global order: their country has been in the economic doldrums for years, and is rapidly losing its percentage share of global trade, its presence as a financial centre, its leverage on the international stage, and the like. Now it risks the indignity of openly squandering the opportunities Kyoto brought it, so the elite are keen to obscure their policy failures by proclaiming a new process.

The sector-based approach that has emerged from Japan's government and business circles gives the appearance of offering a new route to achieving emissions cuts. But there is little evidence of that prospect in current conceptions of the approach. In fact, there is no agreement even within Japan on how to apply this framework. If even the Japanese cannot hammer out a credible framework in time for the spotlight of the summit, what hope is there that the global community can use this approach to draft a new agreement? The acceleration of global warming does not give us the luxury of wasting yet more years. What the sector-based approach does reflect is a continuation, albeit in a new form, of the reluctance of Japan's business and governing elite to set targets and use sound public-sector mechanisms to encourage business to

achieve them.

The sector-based approach appears to be designed to assist sales of Japanese technology, on the premise that it is the global leader in energy efficiency. Unparalleled efficiencies in steel, electrical power and other production are expected to lead to overseas technology transfers, and therefore work to Japan's pecuniary advantage. One problem with this approach is that Japan's lead is not especially evident. Certainly the country boasts some very energy-efficient processes in specific areas, but so do the Europeans and the Americans (and increasingly the Chinese and Indians as well). Above all, the sector-specific approach without firm emissions targets reflects a faith in technological fixes that is more commonly associated with the Americans. That ambition was evident in PM Fukuda's January 2008 World Economic Forum commitment to a 30% increase in energy efficiency by 2030 that committed Japan to no specific measures or verifiable goals in the immediate future.

Always Look behind the Facades

In advance of the summit, the Japanese establishment's PR machine has shifted into high gear, cranking out reams of disinformation. In Bali last year they backed up the Bush regime and helped block explicit targets on emissions cuts. The Japanese political elite have been driven into their present Potemkin PR strategy because they refuse to push against the business establishment's rejection of compulsory targets, carbon taxation, feed-in tariffs and the other measures that are necessary to control greenhouse gas emissions as well as foster sustainable alternatives.

These public-sector measures have been off the table at the central government level, though Metro Tokyo, Kyoto and other subnational administrations are seeking to take vigorous action. This central-government policy immobilism versus local activism somewhat mirrors the situation in countries such as the US and Canada. There, great strides have been made by many states (or provinces) and cities in the face of regressive national policies. But local action is less effective in Japan because the national government holds most of the fiscal and regulatory powers. Hence, as the World Wildlife Fund notes in its newly released G8 Climate Scorecard, Japan has a comparatively poor record largely because it lacks mandatory emissions reductions and renewables adoption mechanisms. This outcome is bizarre if one recalls that postwar Japan's economic miracle was strongly shaped by smart public policies that fostered the incentives to build world-class industries.

In the lead-up to Toyako, Japan's political elite are clearly seeking to deflect criticism at a time when the country faces a rapidly worsening energy crisis coinciding with a political crisis for the unpopular Fukuda administration. Oil prices may climb to USD 200 per barrel and natural gas prices are also expected to mushroom further by the end of the year. As for the climate crisis, note for example that Arctic sea ice extent may shrink even more this year than last year's astonishing and ominous record. Instead of merely publishing the official line from Toyako, perhaps journalists and commentators owe it to their readers to talk to experts, like Iida and Kameyama. They have an agenda of clarification rather than obfuscation.

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Notes

[1] Primary energy includes fossil fuels, nuclear and renewable energy sources. Not included among them is, for example, electricity. This is because electricity is generated by these primary energy sources.

[2] The top five countries for 2008 were Sweden, Germany, Iceland, Mexico, and India. The index is viewable on-line (in English).

[3] Indeed, the Worldwatch Institute's Vital Signs 2007-2008 notes that in 2004 European-made autos emitted 161 grams of carbon whereas their Japanese counterparts emitted an average of 170 grams.

[4] Note, for example, that Japan's target for renewables as a percentage of electricity generation is merely 1.63 percent by 2014. Contrast that with Germany, which has exceeded earlier targets and now aims at 45 percent of electricity produced via renewables by 2030. Note also that nearly half of US states have such targets, and California's are to be accelerated to 33 percent by 2020.