

# Future Uncertain: Economic, Environmental, Social and Political Challenges Facing Japan

EDITED BY MERRAN EBY & DAVID A. WELCH

Proceedings of the Annual Conference of the  
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*Future Uncertain: Economic, Environmental, Social and Political Challenges Facing Japan*

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# On Being Ambassador to Japan

Joseph Caron

## Introduction

What is it like to be Canadian ambassador to Japan? Indeed, what is it like to be an ambassador?

For those who have had the experience of holding ambassadorial posts, there is the honour of representing Canada to another nation, being the visible representative of a highly respected country before the governments of the world, whether they are small and barely appearing on the geopolitical map, or in the great capitals of powerful nations. There is the title and the official role, shaped over centuries, with attendant traditions, courtesies and status.

But as each country to which diplomats are assigned will be different, so will be the experience of being ambassador. And to state the obvious, those experiences will evolve over time. Many are particular to the country of assignment, such as is very much the case with Japan.

There are constants in foreign relations as there are in all dimensions of human society. How governments and citizens approach the world beyond their borders emerges from their geography and demography, their history and institutions, their level of economic development, their fears and their aspirations. These and many other features are reflected in the play of relations between any two countries, including between Canada and Japan. And the ambassador is usually somewhere in the middle of it all.

Countries conduct bilateral relations so as to maintain the existing advantages that their government and their citizens, acting in the pursuit of their myriad national and institutional interests, have obtained over the course of their relationships, and to find new ways to maximize those benefits. The desire to enrich and improve relations generates the forward dynamic of bilateral diplomacy. Either one or both governments will seek changes in the architecture of the rules and agreements on which their relationships are based. Some of these changes can appear to be minor (an increase in the limit of temporary work visas) or highly consequent (a new liberalized trade agreement).

In the middle of these policy initiatives and discussions are the foreign ministries and their permanent representatives on the ground, led by the ambassador. Sometimes initiatives to enrich relations are accepted, sometimes not.

The pages that follow are proposed as the beginning of a set of reflections on the experience of being ambassador to Japan. They form a first attempt at describing the elements of a common experience, one shared by 18 Canadians—so far, all men—and mostly professional diplomats.

But the real purpose is not to propose a history of these 18 actors on the stage of the Canada/Japan story, but to start with some of their experiences to illustrate how Canada has conducted its relations with Japan over the last 90 years, to try to determine what combination of policy from Ottawa and strategies on the ground have succeeded or failed in their attempt to bring advantage to Canada. Foreign relations between two countries—bilateral relations—necessarily depend on finding and acting upon a commonality of interests between two governments, absent which not much happens beyond business as usual, the product of earlier policies and initiatives. There have to be coincident national interests for change to happen. By using as a starting point the experience of ambassadors and their

staff in working to advance Canadian interests, it may be possible to draw insights that will be useful in shaping future policies and tactics.

To that end, an ambitious two-part study program is proposed:

- Studying the experiences of a small number of Canadian ambassadors, in their dealings with Ottawa and Tokyo, with a focus on a limited number of policy initiatives; and
- Encouraging parallel study in Japan of the same historical periods and the same policy initiatives, in order to tell the story from the two national perspectives, a sort of two-part Rashomon.

This paper is thus a sketch of the kinds of themes that could be researched and studied, as a first step. The focus on two ambassadors: Herbert Marler, Canada's first full-fledged diplomatic representative on the ground in Tokyo, between 1929 and 1935, and the author, Joseph Caron, describing some of the features of his assignment as Canada's 15<sup>th</sup> ambassador to Japan from 2005 to 2008. As will be seen, the two experiences were not so far apart.

But first, a bit of diplomatic history.

## Canada enters the world of diplomacy

Following an imperial conference in London in 1926, the Earl of Balfour, at that time head of the Privy Council of the British government, issued a statement to the effect that the dominions, including Canada, were "in no way subordinate to each other in any aspect of their domestic or external affairs." This effectively affirmed Canada's authority in all matters of foreign policy, thus joining a club of sovereign states where established diplomatic rules and traditions shaped the conduct of foreign relations.

This wasn't quite *ex nihilo*, however. Canada had created a special branch of the public service responsible for external affairs in 1909, responsible to Prime Minister Wilfrid Laurier. However, Canada had been represented in London by a resident High Commissioner since 1880, under Prime Minister Macdonald, and promoted trade and immigration in Europe, Japan, and the U.S. well before 1926.

With the Balfour Declaration, we now had the right to establish full-fledged embassies—*legations*, as they were then called—and post ministers or envoys plenipotentiary, that is, ambassadors, a term that only became common in the 1940s.

Prime Minister William Lyon Mackenzie King, who conducted Canada's emerging foreign relations in the latter half of the 1920s, appointed the rightly celebrated Vincent Massey as Canada's first envoy extraordinary to Washington in 1927 and Philippe Roy who became minister plenipotentiary, *commissaire*, to France in 1928. Both of these legations made sense from the perspective of Canada's pre-sovereign history.

Significantly, his third appointment was to a capital in Asia, and that would be Japan.

Many Canadians tend to think that we are now living in the Asian century, but for Canada, Asia was very much present from the late 19<sup>th</sup> century onward.

One thinks of the Last Spike completing the Canadian Pacific Railway in 1885, or Canadian Pacific steamship lines connecting Vancouver and Hong Kong in 1887, transporting goods between the two continents, as well as a trickle of Asian contract labourers and emigrants to Canada.

In 1902, the first trans-Pacific telegraph cable, connecting Canada to Asia, was established, providing heretofore unimaginably rapid communications facilities. Canadian missionary groups were already established in Japan, China, Taiwan, and Korea, providing personal linkages between average Canadians and the Far East.

King chose Japan as the first Asian diplomatic destination for equally practical reasons:

- Trade promotion offices had long been established in Kobe and Yokohama.
- Companies such as Alcan, McMillan, Sun Life, Manulife, Consolidated Mining, and other companies had already established offices in Tokyo and other cities in Japan.
- Approximately 400 Protestant and Catholic missionaries were active in the country, echoing the work of Canadian *oyatoi gaikokujin*, the ‘live machines,’ the foreigners who helped power the Meiji transformation of Japan.
- The ‘gentlemen’s agreement’ on immigration was awkwardly administered at a distance: an office in Tokyo would be the venue for issuing immigration visas *in situ*. This was a very significant social issue in British Columbia, with direct political impact at the national level.

Canada would follow the geopolitical lead provided by Britain, which maintained close ties with Japan, despite the cancellation of the Anglo-Japanese naval agreement. Many recalled that Japanese warships had provided a degree of deterrence if not protection off the coast of British Columbia during World War I, against a small, marauding German fleet.

Korea had been a Japanese colony since 1910, and Chiang Kai-shek’s Guomindang’s capital in Nanjing had not and would not achieve authority over all of China. Japan—in the imperial era of the interwar—was the logical choice for Canada’s third embassy, and first in Asia.

## Hebert Marler

After giving some thought to suitable candidates, Prime Minister King chose Herbert Marler to be Canada’s first envoy to Japan. Marler was a charter member of Montreal’s Anglophone aristocracy, the heir to a prominent and wealthy notary firm established by his father, and the husband of Beatrice Isabel Allan, granddaughter of Andrew Allan, with fortunes from shipping, banking and railways, and Matthew Hamilton Gault, who founded Sun Life Financial. Marler was also good friends with King, having served, briefly, in his cabinet.

King’s instructions to his envoy were brief and precise.

- The focus was to be on visibility for Canada, maintaining positive relations with the Japanese political and economic elites. King saw the legation as a means to humanize the relationship, smoothing some of the rough edges off our strict immigration policies, which were highly resented by the Japanese.
- Marler was to expand trade and economic ties, as a high priority.
- He was also to keep Ottawa informed of developments in Japan and the continent and put out bilateral fires if they arose.

King did not appear to have a great interest in broader political developments in the region: Japan was well-ensconced in Taiwan, and Korea was being colonized, all in good imperial standing. The Manchurian incident, which would precipitate conflict with China, was two years in the future. And

King's successor, R.B. Bennett, would not display great interest in developments under his watch, other than to keep Canada at a distance, and leave high policy to Britain and, in time, the United States.

As time would tell, trade and limited involvement in the security of Asia would be leitmotifs underpinning Canada's relations with Japan.

Marler had his largely complementary views on what he should be doing in Tokyo, giving a very active focus on expanding trade, and how he, Marler, should project Canada to Japan: Marler provided King with plans to build an ambassadorial residence and chancery in Tokyo that would stamp Canada's presence and importance on the people and government of Japan.

Both Marler and his wife Beatrice had a strong sense of their self-importance, so from the moment they arrived in Japan in the fall of 1929, aristocratic poses and attention to protocol was insisted upon by both of them. Some of the Marlers' pretensions did not play well with Canadian staff who had lived their youth in the Jazz Age and not at Downton Abbey. Marler was also one of those people who don't know what they don't know, which put him in some contention with his more knowledgeable and connected staff.

If Marler took himself too seriously, it is to his credit that he took his assigned responsibilities equally seriously. During his 6 years in Japan, Marler's focus was on trade promotion and market access for Canadian goods in Japan, especially mineral and agricultural resources. Improving the terms of trade for Canadian wheat in particular attracted much of his attention and energy. He encouraged individual businesses to come to Japan to develop markets for their goods, and he promoted trade missions.

Even as the bilateral agenda slowly expanded to include collaboration on fighting drug trafficking and enforcing international agreements on cable and postal rates—the type of bilateral plumbing that occupies most of the time of diplomats—the fact remains that Marler's posting corresponded with the October 1929 collapse of financial markets and the ensuing depression. Despite Marler's greatest hopes and sustained efforts, bilateral trade declined by over 60 per cent during his years in Japan, from \$55mm to less than \$22mm, even as Canada maintained a surplus. And Marler's last year saw a significant trade dispute between the two countries, over textiles to Canada and market access for Canada in Japan.

Still, Marler left a substantial legacy.

Marler had a good eye for staff, which he insisted on vetting. Hugh Keenleyside was a former professor at Brown and Penn State, later to become ambassador to Mexico, Deputy Minister of Mines and Resources, and chairman of the British Columbia Power Commission. There is even a dam in B. C. named in his honour. Kenneth Kirkwood spent 10 years in Japan, writing extensively, including a book on Japanese art during the Muromachi period, one of the 17 books he eventually published. James Langley, a trade commissioner based in Kobe, whom Marler insisted join him in Tokyo, also spent a decade in Japan, and was effective enough that, just prior to their return to Canada, he and his wife were invited to the palace to say farewell to the Showa Emperor, a highly unusual mark for a non-ambassador. These and many of their successors would contribute significantly to the reputation of the Department of External Affairs, especially during the so-called 'golden days' of the Foreign Service.

Trade and general economic relations between Canada and Japan were then, and remain today, a constant among Canada's bilateral priorities. Marler's personal and professional commitment to helping Canadians achieve their economic objectives is echoed with virtually every one of his successors.

Marler's most visible legacy is the ambassador's residence. Marler planned, organized, and financed the construction of what today is called Marler House, an 8,000 square foot neo-classical wonder, with a Japanese garden completed by a flowing stream. Marler insisted that the residence be larger than the British ambassador's residence, who Marler felt had slighted him upon his arrival. It has become a most



magnificent venue to welcome and host, on a breath-taking schedule, literally thousands of Japanese and Canadian guests every year, in an environment which then, as now, brings both together to draw attention to Canada, to humanize relationships, and to make deals. Oh, and the second floor also serves to house the ambassador and his family.

Marler's years in Japan were those of utmost turmoil: the assassination of Prime Minister Inukai (Japan had 9 prime ministers during the 1930s); the Manchurian incident of 1931 and subsequent establishment of Manchukuo by the *kantogun*, the out-of-control Japanese army in China's northeast; and Japan's withdrawal from the League of Nations in 1933. But, seemingly, Marler kept his eyes on the narrow set of objectives set for him by King and Bennett. Marler was cautious about criticising Japan for its growing fascism at home and militarism abroad. He even recommended diplomatic recognition of Manchukuo.

Since we know how the story ended, and absent a detailed reading of the archives, it is easy to feel that Marler should have been more attuned to the possible consequences—and ghastly implications for Canada—of the principal and negative trend lines in Asia pushed by Japan. Maybe he did, and that alone would be an interesting research project. But one should guard against reading history from back to front, and bring values—say, anti-imperialism—which would not have been broadly shared among Conservative Prime Minister Bennett's cabinet in the 1930s.

There is something to be said for being the first at anything, and Marler, as our first ambassador to Japan, reflects back to us the Canada of his age. Marler, along with his only pre-war successor, Robert Randolph Bruce, a former lieutenant-governor of B.C., closed an era for a Canada that would be very different when it returned to Japan following World War II.

## Marler's successors

Marler and Bruce were Canada's two first ambassadors to Japan. Ian Burney, living in Marler House in 2017, is the 18<sup>th</sup>. The first three ambassadors were businessmen who had dabbled in politics. The fourth was a mayor of Prince Albert and later a judge. The next 14 have all been public servants and Foreign Service officers. 10 of the 14 were Asia hands, and share knowledge and experiences of great value to an assignment to Tokyo. Two—Rob Wright, at 14<sup>th</sup>, and I, at 15<sup>th</sup>—have also served as ambassador to the PRC, and one—Fred Bull—to the Republic of China in Taiwan. In addition, the Canadian mission has been lead by three *chargé d'affaires*, including the greatest Japan hand of them all, Herbert Norman.

Interestingly, our 18 ambassadors have been paralleled by 29 Japanese ambassadors to Ottawa, almost all University of Tokyo law department graduates and professional diplomats.

## Prime ministers and policies

We are called ambassadors presumably because it sounds good and prestigious, but we should really go back to being called envoys, because that's what we do: we are sent by our national governments to represent, within clear and expansive—or, under Prime Minister Harper, strict and monitored—guidelines and policy sets.

Admittedly, sometimes the guidelines are neither clear nor strict. We exercise discretion and judgement on how best to deliver these policies and established programs. All of us seek to contribute

to policy formulation and some of us actually have an impact. But, by and large, we work at the delivery end of the process.

The substance of work of the ambassador to Japan is influenced directly by whether, in the prime minister's and foreign minister's views, relations with Japan can contribute to the political and economic objectives that Canada sets. In matters of foreign policy and foreign relations, it all starts and ends at home, in Canada. No prime minister or foreign or trade or defence minister has the time to privilege relations with Japan or any other counterpart that cannot help her or him achieve the political objectives of the day.

This may sound self-evident, but it does explain why being ambassador to Japan can be such a different experience from one time to another, under one Ottawa government or another. It is an especially interesting job when the government sets out to define and achieve new and perhaps untried objectives. That can generate the most active engagement with our Japanese counterparts and, for that matter, our counterparts in the Prime Minister's Office and, now, Global Affairs Canada.

But at best, this heavy lifting will consume, say, ten per cent of the ambassador's and the mission's time. The vast majority of the efforts on the ground in embassies comes from servicing the constant flow of requests for support from Canadians, literally from all walks of life, in their individual, corporate, institutional or academic efforts to achieve their objectives in Japan.

Canadian tourists who have lost their passports or are in some difficulty with the host governments need the help of the consular staff. Canadian university researchers who need introductions to MECSSST—the education ministry - or research institutions call on the academic affairs section of the embassies to open doors for them. Canadian business people who are running into regulatory barriers ask for help from the commercial division. And Canadians, including government officials, who need to understand the prevailing political and economic situation seek information and advice from the ambassador, as well as the political staff or the defence attaché. This movement of Canadians across the embassy threshold is what drives the vast majority of embassy activity.

The importance of this cannot be overstated, because it largely constitutes what has been the substance of the Canada-Japan bilateral relationship, as it is experienced by the ambassador and his staff.

Policy and practice has sought to increase the linkages between Canadians and Japanese. And in general, the more such contacts and touch points between Canadians and Japanese, the better. Giving circularity to all of this, increasing that flow, and enhancing its quality, is above all what policy development between Canada and Japan has been meant to achieve.

Not for a moment is this ignoring or demeaning the centrality of multilateral diplomacy, where the framework is systemic and the purpose is to enhance the quality and stability of the global commons. However important is the monitoring of the Japanese government's views on, say, UN Security Council debates or attitudes regarding developments on the Korean peninsula, the fact is that these kinds of multilateral issues have rarely played dominant roles in Canada's relations with Japan. With some exceptions, being ambassador to Japan can involve very little of this. The focus is almost unrelentingly bilateral, from the ground up. That is the nature of the job.

Accordingly, the policy development and delivery process can be very straightforward. Here, the ambassador's role is at both the strategic and tactical levels. Greater or lesser amounts of dialogue and exchange of ideas occur between the ambassador and the Prime Minister's Office, Global Affairs and various concerned ministries. Ideas are bounced back and forth, with Ottawa conveying the views and desiderata of politicians, while senior bureaucrats and the ambassador also generate ideas, as well as explaining how much change the Japanese system can take.

A common feature of these back-and-forth dialogues is that ambassadors insist that they are best informed on what initiatives will be acceptable to Japan and that some of Ottawa's proposals will not fly. In response, headquarters will argue that the ambassador has gone native and should just deliver the message. Sometimes new policy proposals emerge from all of this to-ing and fro-ing; sometimes not.

Once a course is set, the ambassador's job in Tokyo is ensuring that the Government of Canada's objectives are very clear, that these are explained to concerned ministries from the top to the desk levels, and that important players such as the Keidanren and some Diet members and perhaps key public intellectuals are informed and hopefully supportive. If progress is made in these deliberations, the texts of bilateral agreements have to be drafted, analyzed, debated, and agreed upon, to both sides' general satisfaction.

Most importantly, the ambassador and senior staff have to develop an approach that demonstrates how a Canadian proposal is, first and foremost, in Japan's best interest: that can often be the most challenging job of all.

Japan will have its own list of asks, its own level of interest in what Canada has to offer, its own bureaucratic hurdles to overcome, and its own grander foreign policy objectives, which may or may not prioritize Canada at that very moment in time.

There are creative periods in the history of the relationship—think Diefenbaker, Trudeau and Mulroney—and there are periods of policy stasis—late Trudeau and Harper. During those periods, it is primarily the decisions and activities of individual Canadians and their institutions that generate an embassy's work, with little invention of new policies. Instead, the emphasis is on existing policy delivery and responses to changes at less than macro levels.

## **Me, from 1975 to 1998**

I was first posted to Japan in 1975, and was sent for Japanese language training at the U.S. State Department language school in Yokohama. Once in the embassy, as a young trade commissioner, I was assigned to the commercial division and the exciting world of forest products. In the mid-1980s, I became Counsellor for Political and Diet relations.

In the mid-90s, I became Minister and Head of Chancery, just below the rank of ambassador. In some respects, this is the best policy making post at the embassy, because of the opportunity for specialization. I take credit for developing an opening for Canada, as a credible interlocutor on peace and security issues, as the Japanese were re-defining post-Cold War policies.

This was a fluid time in Japanese foreign policy and, as always, this fluidity provided an openness among officials at the foreign ministry and defence agency to broaden their minds and their options. The end of the Cold War and collapse of the Soviet Union changed the dynamics in Asia and, accordingly, Japanese calculations of their security needs and policies. I followed this closely, and developed with Ottawa a proposal to invite two academics, Nishihara Masashi at the National Defence Academy in Yokosuka and Brian Job at UBC, to prepare a report outlining opportunities for bilateral cooperation in the areas of peace and security. After much *nemawashi*—the well-known Japanese process of persuasion and dialogue—the MFA and the self-defence agency agreed to Canada's proposal. Thus was launched ongoing Track 1 and 2 Canada-Japan dialogues that created, in my humble opinion, an openness to collaboration between Canada and Japan on initiatives such as obtaining Japan's signature on the Land Mines Treaty in 1997, cooperation in the UN Disengagement Observer Force on the Golan Heights involving Canada and Japan, also in the 1990s, and in Japanese refuelling

of Canadian vessels combating piracy under operation Enduring Freedom off the Horn of Africa a decade ago.

I mention this to flag that the greatest potential for expanding the scope of Canada-Japan relations comes when big changes in national circumstances impose the need for policy fluidity and initiative.

This fluidity is essential, in my mind. Japan welcomed Marler and his mission in 1929 because it was transitioning from a Depression economy to a militarized economy and it needed grain and natural resources, as well as foreign exchange from exports.

Diefenbaker, Kishi and Ikeda were able to substantially broaden the filature of relations between Canada and Japan in the late 1950s and early 1960s because Japan, less than a decade since regaining its sovereignty, again needed not only resources and markets, but also legitimacy in a world where it had yet to join the GATT, the IMF or the OECD, and needed the support of countries like Canada.

For our part, we had emerged from the war as a powerhouse, we had a growing economy and we were rewriting our immigration policies.

Trudeau did not succeed in his government's "third option" ambitions to make Canada a privileged supplier of semi-processed resources and manufactured goods to Japan, because Japan was already the second economy in the world and could shop wherever it wanted; in any event, the Canadian economy was in some turmoil in the 1970s, and business was not yet ready for proto-globalization.

Thus, you can see a dividing line between eras of policy growth and expansion in the formal government-to-government relationship, and eras of relative policy stasis when ambassadors and their staff implement and fine-tune established policies, assist Canadians and keep the on-site programme plumbing in order. Those can be productive periods as well, but business-as-usual offers less of the drama and excitement of change, which of course is of greater interest to scholars.

And those realities pretty well frame my years as ambassador to Japan.

## **On being ambassador**

I arrived in Tokyo from Beijing in the summer of 2005 in a period of policy fluidity. A few months earlier, Prime Ministers Martin and Koizumi had agreed during a bilateral visit on two important initiatives: an updated Canada-Japan agenda for peace and security cooperation, and a renewed Canada-Japan economic framework.

The first of these built on the productive relationship of the past decade, which saw Canadians and Japanese working together on a number of security and policy issues and collaboration in a variety of international venues. The update also called for "cooperation in their peace-building efforts such as security sector reform" in Afghanistan. It also promised to continue the successful security symposiums which involve academics and thought leaders, and ongoing political/military talks at the purely government level.

The second driver of bilateralism was a new joint economic framework, which was directed to use the venue of the Joint Economic Committee, meeting since 1976, to advance the possibility of changing the structure of the Canada-Japan economic relationship towards something like an FTA. It promised a joint study to provide what was referred to as an "assessment of the implications of further trade and investment liberalization and related policy instruments." This language was insisted upon by the Japanese so as not to suggest even a whiff of some sort of free trade agreement.

Furthermore, in April, still in 2005, Martin's government launched a comprehensive "international policy statement" which re-defined Canada's international diplomatic, defence, economic, and development objectives. These generally tied into the bilateral January initiatives, especially with regard

to seeking to expand the economic relationship, and more bilateral activism on matters of the post-9/11 security world, including in Afghanistan. Japan was specifically mentioned in the policy statement as an important partner in these efforts.

Fortunately, these objectives largely survived the major readjustment to Canadian diplomatic and security policies when Stephen Harper's government came to power in February, 2006.

Coming on top of these frameworks, I also received instructions from Peter Harder, then the Under-Secretary, now the leader of the Senate. Much of these were standard boilerplate directions to manage "the full spectrum of Canada's mature and extensive political, economic, defence, academic and cultural relations with Japan." But emphasis was placed on both of the Martin/Koizumi security and economic initiatives.

Peter also prioritized the issue of parental child abductions, an ongoing issue between Canada and Japan.

And, basically, these are the strategic policy areas in which I worked during my three years as ambassador, emphasizing once again that the day-to-day job of serving individual Canadians and their companies and universities and arts groups took up most of my days.

A review of daily schedules during my 1,000 days in Tokyo, from July 28, 2005 to August 8, 2008, when I left for India, shows that clearly.

Just to illustrate, let me list, briefly, my activities during the month of November 2005, to give you a sense of what I and my fellow Canadian ambassadors to Japan would do in a given month.

November 2005:

- Among other meetings, I called the governor of the Bank of Japan, Fukui Toshihiko, to discuss the Japanese economy, his plans to fight deflation, and to flag our aspirations for enhanced economic ties;
- I called on Ogata Sadako, who then led the Japan International Cooperation Agency, to discuss Afghanistan cooperation;
- I met my decades-long friend Kanemoto Yasunori, a veteran of the National Police Agency and the Secretary General of INTERPOL from 1996 to 2000, in Lyon in his new position as personal advisor on national security issues to Prime Minister Koizumi, at which time we discussed Japanese national security policies and Canadian cooperation;
- I planned and directed the annual embassy retreat of senior staff;
- I participated in the Canada/Japan Housing Committee, continuing an engagement that began in my forestry days, some 30 years earlier;
- I met in formal meetings with over 20 Japanese and Canadian companies, including Honda, Toyota and Itoham, as well as Canadian Forest Products and CIBC;
- I had separate meetings with 12 artists, academics, journalists, and visiting economists;
- I travelled to Tottori prefecture to formally launch the Canada-Nakanoumi Friendship Society, and to Nagoya for meetings with business and local political leaders;
- I wrote an article on Canada/Japan economic relations and our hopes for an FTA of sorts; and
- I drafted and delivered a speech to the Tokai/Canada Japan Society.

That was the month of November.

I don't think that my ambassadorial schedule during my years in Japan was in any way unlike that of my predecessors or successors. If I had one distinguishing feature among my 17 Canadian ambassador colleagues, it is that I had already spent 14 years in Japan, including in the private sector, and could bring that experience to good use.

With respect to the strategic objectives on matters of peace and security, and the economic relationship, I can point to efforts to those ends, but no dramatic breakthroughs.

Canada/Japan cooperation continued apace on the peace and security front. I played my role of booster by meeting and discussing cooperation with Diet members and senior officials, giving regular public speeches, participating in peace and security panels with people like former UN Under-Secretary-General Akashi Yasushi, doing media interviews, and thus beating the drums. I was invited to make a speech to the editorial board of the *Yomiuri Shimbun*.

This was a bit tricky because we were now in the Harper era, and contrary to the past, as ambassadors, we were forbidden to speak publicly without explicit permission from Ottawa. Nor could I meet, during visits to Ottawa, with Canadian cabinet ministers, who appeared to consider the role of diplomats in general, and ambassadors in particular, as little more than expensive mailboxes.

My colleagues and I worked hard, in particular, with the MFA, the Defence Agency, and JICA to develop cooperation programs in Afghanistan. One promising project involved reconstruction of the Dahla Dam in Kandahar, the second biggest in the country. Another involved cooperation in providing police training and equipment. Discussions were extensive, but ultimately failed because of Japan's great concern about the security of its staff and the dangers of exposure outside their embassy compound.

On the economic front, the joint study of the potential for liberalization of trade and investment between Canada and Japan was indeed completed, making recommendations in fifteen areas such as government procurement, trade in services, and intellectual property. While meetings on next steps did take place, and I was involved in them, Japan considered that it would make greater gains through a proposed trans-Pacific partnership. As some of you know, even the withdrawal of the United States has not cooled Japan's interest in an agreement. So, as of this moment, there is no movement on a Canada/Japan agreement. And, frankly, I too believe that Canada would benefit more substantially in a new regional trade agreement.

Another important initiative was obtaining Japanese agreement to join the Hague Convention on the Civil Aspects of International Child Abduction. This involves getting Japan to respect the decisions of civil courts outside Japan and dealing with children who are abducted by one of the parents and brought back to Japan, despite legal restrictions against doing so. It is a very complicated issue, with complex legal, social, political, and indeed emotional ramifications. My colleagues in the embassy and I were very active on this file, including working with other embassies to press the foreign ministry and the justice ministry in Japan to address a growing problem, given the increasing number of international marriages, including between Canadians and Japanese.

It did not occur during my watch, but Japan did ultimately sign the convention, effective in 2014.

## **Being ambassadors to Japan**

As I stated earlier, my 17 ambassadorial colleagues, stretching from Herbert Marler in the 1930s to Ian Burney 80 years later, have each had experiences that differed one from the other. Professional priorities may be spelled out clearly, but how we do them, in what order, what experiences we personally bring to the job, how we take advantage of circumstances, or how we fail to grasp opportunity, all of those will differ from individual to individual.

However, in preparation for these notes, I did speak to some of my Canadian ambassadorial colleagues, and pass on, in conclusion, some of our shared perception of what it was like to be ambassador to Japan:

- The ambassadors of recent history all say the same thing: they all loved the job, felt incredibly privileged to represent Canada in Japan, and enjoyed working with the Japanese in both personal and professional circumstances. Every one of us found aspects of Japanese history, society, popular culture, cuisine, pop music, and high art to be enriching, something to retain long after the end of our assignments. One of my colleagues said that he hoped that he would not die while in Japan, because he expected that when he got to heaven, he would be very disappointed!
- As a Pacific neighbour, as a member of the G8, as a country with an excellent image in Japan, and as an economic partner, all doors were open to all of us. This is not the case for the large majority of ambassadors. The Canadian ambassador can meet just about anyone he—and eventually, no doubt, she—wishes, all the way to members of the imperial family. Japanese government officials are always available to meet with their Canadian counterparts. But outside government-to-government business, it was always important to be able to offer something in exchange to your interlocutors: insights, information, access, even hospitality. There is a reciprocal dimension to meeting such people as the president of Mitsui and the like; the job of the ambassador is to ensure that the door is opened the second time he knocks.
- Japanese institutional conservatism is a fact of life, and is as common in Japanese ministries as it is in businesses or the academic world. Promoting initiatives is always a challenge. Canada, in the vast majority of cases, is the *demandeur*, the initiator; Japan, rarely so. Some of this reflects our relative sizes as populations and markets. Japan is bigger than Canada in everything but geography. Also, in Canada, the political direction is vertical and responsiveness is expected. In Japan, the balance of power is more complex, more horizontal and diffuse, and veto power can come right out of left field. There is the strong if residual operating principle of *gekokujou*—the power of underlings in a hierarchy—to impose their usually conservative, rarely imaginative views on their superiors, who can choose not to fight them. I saw this on many occasions.
- Relations with the U.S. are at the centre of Japanese political, economic, and security relations. All good ideas and initiatives coming from Canada benefit from being examined for the way they intersect with Japan/U.S. relations. The U.S. can be a great ally, especially on matters of peace and security. On occasion, I ran things by the U.S. ambassador before proposing them to the Japanese. This “America first” tendency colours Japanese responses to Canadian initiatives in the economic sphere.
- Finally, we Canadians under-rate the power of active communications strategies and cultural diplomacy on our relations with Japan. There are recognized Canadian superstars in Japan, and recognized places like Whistler, Mont Tremblant, the Rockies, and Niagara Falls. Japanese people love Robert Lepage, Margaret Atwood, Bryan Adams, Céline Dion, and now Justin Trudeau. But the biggest superstars are our values, our openness and the welcoming friendliness of the average Canadian, including I hope their ambassador. We do well when we promote these in Japan. None of them will get us an FTA. But all of them provide the positive disposition among the Japanese without which we will find it difficult to achieve our goals.

Thank you for listening to these remarks. I hope that you found them informative. I will welcome, in the coming days, any advice on where I might go from here. *Goseicho, arigato gozaimashita.*

# Emerging Solidarities and Spatialities in Post-3.11 Japan: Gender, Sexuality and Transformative Resilience

Natasha Fox

**Abstract:** This paper discusses some ongoing outcomes of the Great East Japan Earthquake and Tsunami of March 11, 2011 (“3.11”) from the perspectives of thirteen members of a sexual and gender minority community in Japan. Foundational research on the social dimensions of disaster has highlighted the ways in which gender, income, race and other social demarcations intersect during natural hazards, compounding pre-existing vulnerabilities in the disaster context. A new body of research explores how marginalized individuals may also exhibit specific capacities during and after disasters as a function of their socially marginal location. This paper explores how the adaptive capacities of a group of diverse Japanese women were mobilized in response to the 3.11 disasters, and the ongoing effects of this mobilization on understandings of community resilience and Japanese society. The paper argues that Japanese disaster resilience manifesting in queer communities is a distinctly transformative process, creating new geographical connections and solidarities across the gender and sexuality spectra, and moving beyond “bouncing back.” Supported by a series of semi-structured interviews with 12 Japanese queer women and one trans man, I argue that queer activism in the post-3.11 context contributes to a unique constellation of connections, spatialities, and solidarities which are transforming Japanese society at multiple socio-spatial scales.

## Introduction

This paper discusses a series of civil society actions and reverberations that have taken place in Japan since in the Great East Japan Earthquake and Tsunami of March 11, 2011 (“the 3.11 disasters”) from the perspectives of 13 members of a Japanese sexual and gender minority community. In the summer of 2011 I conducted a series of interviews with 13 individuals who identified as lesbian, bisexual or transgender<sup>1</sup> all of whom were regularly frequenting nightclubs in the neighbourhood of Shinjuku Ni-

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<sup>1</sup> Given the endless diversity of individuals’ gender identity and sexuality, the available lexis in the English language (including the ever-growing list of acronyms and various attempts to include and validate as many identities as possible) inevitably falls short. My use of the term queer in this paper is an attempt to describe individuals who may identify with the terms bisexual, lesbian, transgender, or other non-conforming gender or sexuality identifier. When individuals explicitly described themselves as lesbian or bisexual, I use their preferred



chome, Japan's most well-known queer district located in central Tokyo. My intent at the time was to explore the significance of an increasing number of women's dance party events and nightclubs in Ni-Chome, a neighborhood overwhelmingly dominated by establishments catering to gay men and transgender women (Fox 2013). Because the fieldwork took place in the months following the 3.11 disasters, our semi-structured interviews inevitably veered towards the recent earthquake, tsunami and nuclear meltdown that had devastated so many communities in Japan's northeastern region of Tohoku. Several of my participants had either been born and raised in one of the disaster-stricken areas, or had family members who lived in the disaster zone. Others expressed concerns related their sexuality, safety, and privacy if a similarly large earthquake were to strike the Tokyo area, an event that is projected to be highly destructive and likely to occur in the coming decades, if not sooner (Sorensen 2011).

In September of 2017, I contacted participants from the 2011 study in order to document their activities over the roughly six years since our interviews had taken place. I also offered them the option to revisit their 2011 interview statements in order to identify any changes in their views around sexualities and genders. Lastly, I asked a short set of additional open-ended questions in order to survey their opinions on some recent changes related to gender and sexuality in Japanese society. Given the increasing international visibility of public debates about queerness, and growing list of countries legalizing same-sex marriage over the past six years, I expected to find some participants' views to have become slightly less conservative since we last spoke about these matters.<sup>2</sup> I did not anticipate the degree to which their views would change, nor their specific identification of the post-disaster context as a catalyst for social change around Japanese queerness. The participants articulated multiple ways in which post-disaster activities are yielding new ideas about gender and sexuality in Japan, with reverberations that extend well beyond disaster planning and into the broader public sphere. These views were further supported by a brief case study of an Iwate-based LGBTI support organization whose activities are solidifying the relationship between disaster recovery and queer community-building.

The recent follow-up interviews revealed that during the period since we last spoke in 2011 many of the participants have experienced profound changes which, I argue, are linked to activism and discourses that have emerged in conjunction with the 3.11 disasters' aftermath and related impacts on Japan's human geographical landscape. This paper explores some of these linkages by highlighting the activities and outcomes of civil society action around genders and sexualities in Japan since 2011. I argue that participants are imagining and enacting new and alternative discourses of self, community, and society at multiple scales. Creating new geographical connections and building new socio-spatial solidarities across the gender and sexuality continuum in a way that is increasingly visible, their activities constitute a process which I identify in this paper as *transformative resilience*.

## **Contested views of resilience and “transformational” vs. “transformative”**

An important ongoing debate in the study of humans' relationships to disasters asks whether resilience can provide an appropriate framework for theorizing the capacity to endure a natural hazard. At the heart of this debate is disagreement about whether resilience describes the ability to “bounce

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terminology. Similarly, when discussing specific organizations (such as in section 3.1) I use the organization's chosen vocabulary.

<sup>2</sup> At the participants' request, many of the 2011 interviews took place in locations that were deliberately obscured from public view. Some were visibly nervous about being overheard talking about their sexuality and all but one were convinced that Japanese society would never recognize the existence of queer Japanese people in their lifetime.

back” to pre-disaster conditions after a crisis, or the power to transform into something new and more capable of supporting human wellbeing (Alexander 2013).

Initially applied in the STEM (science, technology, engineering and mathematics) fields in the 1960s and 1970s, the application of the term resilience to the study of disasters spread significantly in the 1980s with General Systems Theory in Ecology (*ibid.*), and later as a bridge between the social and natural sciences in Socio-Ecological Systems (SES) Theory (Cote & Nightingale 2012). Recently human geographers have argued that resilience as a concept in disaster studies is problematic because it under-theorizes social, economic and political dimensions that underlie disasters by focusing on a community’s ability to “bounce back” rather than move away from pre-existing social vulnerabilities (*ibid.*; Brown 2014). Raven Cretney and others have also pointed to the ubiquity of resilience as a buzzword used by economists to normalize discourses of individual responsibility, and the dominance of market forces over human needs in constructing built environments and social networks (Cretney 2014; Cretney & Bond 2014). In line with these arguments, Juergen Weichselgartner and Ilan Kelman have added that so-called resilience-building projects tend to uncritically accept universal assumptions about the societies in which they take place, implementing one-size-fits-all techno-scientific solutions where more nuanced and complicated realities of diversity and geographical differentiation should be taken into account (2015). For instance, local factors such as a society’s collective and legal definition of a “family” (as exclusively heterosexual opposite-sex couples and their biological children, for example) may determine who has access to shelters in the emergency period.

This paper engages with these debates by attempting to “salvage” the disaster resilience concept by highlighting activities taking place at the nexus of sexual and gender diversity, and community capacity to cope with hazards. In line with arguments made by Dominey-Howes, Gorman-Murray and McKinnon (2014), I define *resilience* as the cumulative adaptive capacities of an individual, family, community or society, which are generated through the realities of everyday social survival and may be mobilized in response to a crisis. The very process of mobilizing these capacities necessitates a transformation in the performativity of the self, the cumulative effects of which can be profound, reverberating across time and space and contributing to social change (Lee 2016). Societal transformation necessarily begins at the level of the individual, and may arise even in cases where one’s activities are not explicitly ideological or deliberately political. Indeed, even the effects of ordinary actions without leadership or structure, particularly those in society’s margins, can yield social transformation.<sup>3</sup>

The goals of mainstream disaster preparation and response include cultivating societies and communities that can withstand a natural hazard by improving and bolstering the effectiveness of existing social and infrastructural safeguards. In some cases these improvements can be thought of as “transformational” in that they effectively reform and improve what exists already. In the aftermath of the 1995 Hanshin-Awaji Earthquake, for example, the central government of Japan implemented a policy allowing more locally-driven, bottom-up community redevelopment (*machizukuri*) to take the place of top-down approaches (Hyogo Prefecture 1995), a notable exception to the standard practice of central-government-led planning (Edgington 2010). Working within existing parameters of *what is* therefore, can produce transformational ways of enhancing these structures. On the other hand, the Kobe disasters’ aftermath also offers a “transformative” example in that it allowed civil society actors to problematize an existing structure, and effect social change toward *what could be*. In this example, the

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<sup>3</sup> For example, the Black Lives Matter Movement, the Me Too movement, and others. For an elegant discussion of the potential for everyday actions to become radically transformative, see Charles T. Lee, *Ingenious Citizenship: Recrafting Democracy for Social Change* (Durham: Duke University Press, 2016).

existing structure was the status of NGOs in Japan, and the social change that resulted has been termed the “birth of Japanese volunteerism” because of the rapid growth of, and reforms in relation to, civil society and Japanese NGOs (ibid.)

Returning to the discussion of resilience above, the utility of *transformative resilience* as a concept lies in its power to prefigure a politics of Japanese identity, community, and society in which diversity is an asset rather than a problem to be solved. The next section explains how the adaptive capacities of diverse Japanese people were mobilized in response to the 3.11 disasters, and how the interrelated effects of this mobilization are yielding radical new forms of resilience that move beyond “bouncing back” to pre-disaster conditions.

### **Post-3.11 Activism: Queer Possibilities on the Margins<sup>4</sup>**

Foundational research on the social dimensions of disaster has highlighted the ways in which gender, sexuality, income, race and other social demarcations intersect during natural hazards, compounding people’s vulnerability in the disaster context (Wisner 2004; Pitt Enarson & Dhar Chakrabarti 2009). A new body of research explores how marginalized individuals can also exhibit specific capacities during and after disasters as a function of their socially marginal location (Pitt Enarson 2012).<sup>5</sup> Japanese queer experiences of the 3.11 disasters also support this claim, and also offer evidence that the aggregate of these experiences may also have important implications for the socio-spatial landscape.

#### *The Case of Iwate Rainbow Network*

An example of this type of Japanese queer capacity-building is Iwate Rainbow Network,<sup>6</sup> an Iwate-based organization established on March 19, 2011 to create a supportive network for LGBTI (lesbian, gay, bisexual, transgender, and intersex) disaster survivors. In the emergency period the network began publishing a blog disseminating targeted information for LGBTI people to safely access resources, information, and counselling. Currently the network engages in a number of activities that underscore the significance of the post-disaster context in an emerging type of activism in Japanese rural queer communities.

Iwate Rainbow Network (IRN) provides LGBTI peer counselling, organizes meet-ups with various discussion topics such as LGBTI-related books and films, as well as educational workshops around

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<sup>4</sup> The title of this section is borrowed from Andrew Gorman-Murray, Sally Morris, Jessica Keppel, Scott McKinnon, and Dale Dominey-Howes (2016) who describe the ways in which marginalized people may exhibit specific capacities during and after disasters due to their location outside of societal norms. Their analysis showed that the process of being marginalized due to ones non-conforming gender or sexuality had the effect of creating certain strengths (uniting together to provide exceptionally effective support for one another, for example) that came into play during the 2011 Queensland floods.

<sup>5</sup> Also for a discussion of how being marginalized can create specific resiliencies, see Andrew Gorman-Murray et al., “Problems and Possibilities on the Margins: LGBT Experiences in the 2011 Queensland Floods,” *Gender, Place & Culture*, February 2, 2016, 1–15. For specific firsthand examples, see Yamashita, Azusa, “Beyond Invisibility: Great East Japan Disaster and LGBT in Northeast Japan,” FOCUS, n.d., accessed January 1 2018, <http://www.hurights.or.jp/archives/focus/section2/2012/09/beyond-invisibility-great-east-japan-disaster-and-lgbt-in-northeast-japan.html>

<sup>6</sup> Iwate Rainbow Network, May 2017, *Iwate Rainbow Network’s Blog*, accessed January 2 2018, <https://ameblo.jp/iwaterainbownetwork/>



**Figure 1.** Sign for “Charity Party” at Lush Store, Morioka.  
Retrieved from <https://ameblo.jp/iwaterainbownetwork/page-3.html>

noting how IRN and similar organizations are creating relationships and networks that transcend physical distances and regional boundaries. Ongoing earthquake preparation-related activities for sexual minorities not only in the Tohoku region but also across Japan include sending out group SNS alerts via phone messaging lists, establishing support organizations in various locations throughout Japan, offering telephone counselling, holding symposiums in various locations, and preparing disaster prevention guides.

An example of a disaster prevention guide connecting geographically distant places on the basis of specific LGBTI needs is the relationship of IRN to another LGBTI support organization called Kochi Help Desk. In 2017 representatives from IRN were invited to hold a series of workshops with Kochi Help Desk supported by the Kochi prefectural government. The founder of the IRN secured funding by applying to a feminist organization called the Mioko Fujieda Fund for Gender Equality and Reconstruction from the Great East Japan Disaster.<sup>8</sup> When her application was successful, she traveled some 1300 kilometers to Kochi prefecture in order to meet with other LGBTI groups there to share strategies for preparation for the earthquake and tsunami expected to strike Shikoku. After the workshop, the organizations co-published their recommendations in a “Rainbow Disaster Risk Reduction Manual” (see fig. 2) to highlight the needs of LGBTI people in disasters. The manual is available as a PDF on both organizations’ websites in both Japanese and English. It includes practical

LGBTI-related issues. The network’s activities illustrate a number of important points about Japanese queer communities’ changing human geography and understandings of risk and solidarity when facing various natural and human hazards.

In the aftermath of the Orlando mass shooting, the network disseminated information for local people to access counselling through a sexuality and human rights crisis hotline. The network also distributed information about a prayer gathering for victims taking place at a church in the town of Hanamaki, Iwate.<sup>7</sup> In another instance, the network collaborated with a cosmetics company to co-organize a fundraiser commemorating the International Day Against Homophobia, Transphobia and Biphobia (see Figure 1) in which proceeds from sales of certain Lush products at their Morioka location on May 3 would be donated to IRN.

One interview participant explicitly linked these activities to the changing human landscape of queer communities in Japan,

<sup>7</sup> Azusa Yamashita, 2016, “相談情報/info on LGBTI consultation service,” web log entry, June 15 2016, accessed 22 December 2017, <https://ameblo.jp/iwaterainbownetwork/page-3.html>.

<sup>8</sup> Azusa Yamashita, personal communication to the author, September 27, 2017.

for survival and post disaster life with dignity for all

## Rainbow Disaster Risk Reduction and Management Guide

The Great East Japan Disaster hit Japan's eastern coastal region in March 2011 with magnitude 9.0 earthquake followed by tsunamis and nuclear power plant explosion. This incident has given us - lesbian, gay, bisexual, trans and intersex (LGBTI) people and allies in Iwate, one of the disaster-affected areas to think of LGBTI and disaster as one of our urgent issues which are not often discussed in LGBTI community.

This guide is based on a series of workshops in Iwate and Kochi, area in southern Japan where mega earthquakes and tsunamis are expected in the future. We call disaster risk reduction and management (DRRM) which is inclusive of non-heteronormative and non-gender conforming people "rainbow DRRM." In our workshop, LGBTI support groups in Iwate and Kochi discussed how rainbow DRRM could be realized including struggles and needs of LGBTI survivors in disaster.

Some of the contents in this guide may not be relevant to other countries because DRRM system varies from a country to country. We, however, hope this guide helps LGBTI people and DRRM stakeholders in disaster-prone areas and countries to prepare better.

### Key Points

- Every survivor has the right to life with dignity and the right to receive humanitarian assistance. Survivors are diverse and each survivor has different needs.
- Needs of LGBTI survivors in post-disaster situation vary from an individual to individual. Whether one is out about sexuality also varies. Some have carefully chosen not to come out to avoid discrimination and ostracism. Sensitivity is greatly needed not to out someone when you provide post-disaster assistance.
- Adequate preparation in peace time is inevitable for effective DRRM. In our workshop, one participant said "I may not be able to use inclusive support service even if it becomes available because I'm afraid of being outed and discriminated against by seeking support." For this not to happen, each of us needs to take opportunities in peace time to know and understand diversity of sexuality and needs of non-heteronormative and non-gender conforming people in disaster.

### Struggles and Possible Measures to Take in Disaster

Followings are struggles and possible measures that can be taken in different timelines after a disaster occurs. One may experience struggles listed in evacuation phase in reconstruction phase.

struggles	possible measures
Can't reach my partner and friends.	First thing you do when a disaster occurs is to protect yourself. In large-scale disaster, disaster message board service becomes available. To use this service, you need a phone number of the person you want to know the safety of. Make sure to have phone numbers of people you care about with you in advance. Discuss where to meet up when a disaster happens is also a good idea.
Emergency shelter registry requires to fill in a form and the form has a gender column. Not sure if I should write down my gender shown on ID card or my gender identity. Having to choose from male or female boxes makes me uncomfortable.	Make individual forms that one can fill in with privacy (not a list on which everyone writes down and can see who else has filled in.) Make filling in a gender column optional or free format column.
I want my gender identity to be respected at an emergency shelter. I have evacuated with my same-sex partner. Will our privacy at an emergency shelter be guaranteed?	Protecting and guaranteeing one's privacy creates safer and more comfortable environment at emergency shelters not only for LGBTI survivors but for all. Have partitions ready in peace time.
I wonder if I might be harassed when I go ask for sanitary pads, underwear, razors or other gender-specified relief supplies due to my gender identity or gender expression.	For some people, gender identity, gender expression, sex assigned at birth and gender marker on ID cards do not necessarily match. Each of us needs to know that. It is important for aid workers to know that some people might hesitate to ask for relief supplies because of gender identity or gender expression and to have a system where volunteer or aid workers can pass supplies individually to those need the support.
Gender-specified facilities such as temporary toilets, both equipment and dressing rooms are not accessible to me at emergency shelters. Because of my gender identity or gender expression, I was treated in a discriminatory way when I tried to use the facility.	Have non-gender-specified and disability-access toilets in addition to gender-specified toilet units. Allocate some time in a day for individual use of dressing rooms and bath equipment.
Some people call me by my name on legal registry and I feel violated.	For some people, gender identity, gender expression, sex assigned at birth and gender marker on ID cards do not necessarily match. Each of us needs to know that. It is important for aid workers to respect one's gender identity and how one hopes to be treated.
I want to access counseling service for disaster survivors but not sure if my sexuality will be understood or accepted. / I'm a transgender woman and wonder if counseling service for women disaster survivors is inclusive of me.	When you as an aid worker to disseminate information about counseling service for disaster survivors, make sure to include a message that LGBTI survivors are welcome together with other survivors. It is important to be trained to help LGBTI people in a sensitive way in peace time. Counseling service for women disaster survivors should be inclusive of transgender women.
I was harassed due to my sexual orientation when I volunteered in disaster-affected areas.	Just like survivors, safety and dignity of every volunteer must be protected and guaranteed. Have a code of conduct for all aid workers including volunteer which is inclusive of sexual orientation, gender identity and diverse needs of LGBTI survivors.
One of the qualifications for temporary housing or public housing for disaster survivors says "family unit." We're a same-sex couple and not sure if we qualify for that.	Municipal governments decide qualifications for post-disaster housing. "Family unit" usually excludes same-sex couples because such partnership is not legally recognized by Japanese law. It will be good to lobby for inclusive public housing qualification in peace time so that you can stay with your same-sex partner in temporary or public housing for survivors.
I want to apply for temporary housing or public housing for disaster survivors. It's always a so much trouble for me to explain why my gender marker on legal registry is different from my gender expression.	For some people, gender identity, gender expression, sex assigned at birth and gender marker on ID cards do not necessarily match. Each of us, especially those in public service needs to know that. It is important for aid workers and government officials who handle these applications to be trained to respect one's gender identity and treat everyone in a sensitive and non-discriminatory manner.

### What to Pack in Your Emergency Backpack

What one will need in disaster differs from a person to person. It will be nice to think of what you'll need for at least three days after a disaster occurs and pack them in an emergency backpack in peace time. Evacuate with the backpack when it happens.

- bottles of water
- emergency food
- clothes (including breast binders if you usually use one)
- umbrella and raincoat
- wet wipes
- portable toilet pack
- basic cosmetics
- emergency contact card (especially if you list your same-sex partner as emergency contact)
- medicine pocketbook/daily medicine (including hormone pills or HIV meds if you are on it)
- portable radio
- mask

### Useful Material

The Sphere Project Humanitarian Charter and Minimum Standards in Humanitarian Response (The Sphere Project)  
 The Support We Wanted! A Collection of Good Practice in Disaster Response based on the East Japan Disaster (Line Together)  
 Gender Equality & Disaster Risk Reduction Learning from Adversity (Gender Equality Bureau, Cabinet Office, Government of Japan)  
 Disaster Handbook (Japan Association for Relief)  
 Basic response to persons with disabilities in evacuation centers (LDS Women's Network Japan) \*All of the above available online in English.



*This guide was printed with generous support from Mioko Fujieda Fund for Gender Equality and Reconstruction from the Great East Japan Disaster and created in partnership with Kochi Help Desk.*

**Iwate Rainbow Network** <http://ameblo.jp/iwaterainbownetwork/> [iwaterainbownetwork@gmail.com](mailto:iwaterainbownetwork@gmail.com) March 2016

Figure 2. Rainbow Disaster Risk Reduction and Management Guide (English)  
 Source: <https://ameblo.jp/iwaterainbownetwork/entry-12157544694.html>

recommendations for LGBTI people themselves such as what to pack in an emergency kit, as well as recommendations for disaster planners to make evacuation and sheltering processes safer and more

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accessible for LGBTI people. These include listing one's gender as an optional part of the shelter intake forms rather than a requirement, and making gender-specific relief supplies such as sanitary pads accessible in private rather than in the presence of other evacuees.

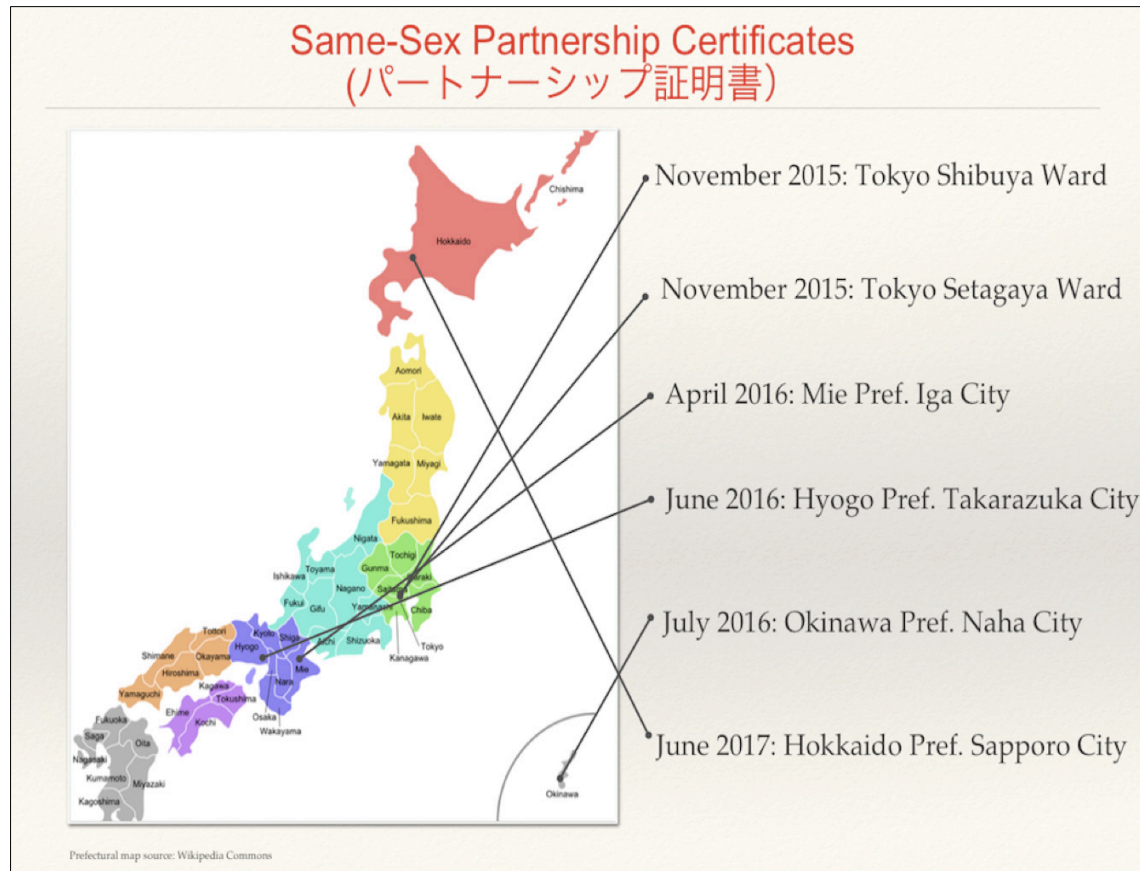
The process of producing this report is significant because it bridges two geographically distant locations in Japan (Kochi and Iwate prefectures) on the basis of a shared LGBTI identity extending across space. Furthermore, the feminist funding organization's willingness to contribute to the manual's production reflects an emerging solidarity between women's support and empowerment groups and LGBTI organizations in Japan. Similarly, IRN's mobilization of the LGBTI acronym itself is significant because it positions gay men as well as trans and intersex people as allies in a way that has increasingly surfaced in the post-3.11 context. Ikuko Sugiura has shown how queer women in Japan have long faced the doubly-marginalizing experience of negotiating their non-heteronormative sexuality while also bearing the responsibilities associated with being a woman, including childcare, caring for elderly relatives, and the many related gender-specific social expectations (Sugiura 2012). In the past, these added burdens undercut the possibility for collaboration between gay men, lesbians, and trans people and led to highly divisive debates within Japan's lesbian community about what the political objectives of a lesbian activist movement in Japan should be (ibid.) IRN's activities thus offer one example of transformative resilience blurring various geographical and social boundaries in the post-3.11 context in order to accomplish their goals. This is significant because a number of bureaucratic roadblocks in legal and political processes leading up to and following the 3.11 disasters have been cited as one reason for the sluggish recovery.<sup>9</sup> The trans-prefectural publication of the Rainbow DRRM illustrates a transformative resilience approach that unsettles traditional hierarchical boundaries of municipal, prefectural, and national administrations. My recent interviews with queer women from the 2011 study further underscored how emerging human-geographic connections and solidarities in the post-disaster context also connect to experiences of queer people in everyday life in Japan, highlighting the importance of social changes in the non-disaster context.

### *The "feedback loop"*

As stated earlier in this paper, participants in the 2011 study tended to be highly sceptical about the possibility of popular liberalization around queerness in Japan in their lifetime. In 2015, Shibuya and Setagaya wards began issuing same-sex partnership certificates to couples who were residents of the ward and chose to apply for the certificates. While the certificates are not legally binding and individuals and companies may choose not to honour them, they did nevertheless offer same-sex couples an added

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<sup>9</sup> For example, post-disaster donation funds were not distributed promptly to victims of the disasters due to bureaucratic red tape. The central government decided that funds should be allotted according to the extent of individuals' damage. Accordingly, victims of the disasters were required to produce a certificate of damages from the local government before they could receive funds. In many cases, the local governments were not properly functioning in the initial months after the earthquake, having lost many members of their staff in some cases, so local government officials could not verify and issue the certificates of damage in a timely manner. This process left victims at the mercy of a bureaucratic catch-22. For more detail on the locations where snags affected the speed of the reconstruction, see the reconstruction agency website at <http://www.reconstruction.go.jp/>



**Figure 3.** Map of locations of Japanese same-sex partnership certificates

*Source:* Prefectural map retrieved from Wikipedia commons (altered by author)

layer of legitimacy not seen in Japan prior to that time. Official acknowledgement by the ward of a couple's commitment to a partnership thus marks a small but transformative change from the past. The 13 participants from the 2011 study all expressed their utter shock to witness this taking place in their lifetime. The partnerships claim to entitle same-sex couples to housing (critical because some landlords can refuse to rent to same-sex couples, notoriously common in accounts of queer couples trying to rent a living space). The certificates also entitle couples to hospital visits in case of emergency. Importantly, however, it is yet unclear as to whether they have any effect on a cohabitating same-sex couple's right to shelter as a family in an emergency. One of my participants in Sendai attempted to contact five different government officials in Shibuya and Setagaya but could not get a clear answer on what would happen in this case.

Another criticism of the partnership certificates is that they were limited to the very small and affluent neighbourhoods of Shibuya and Setagaya. It is noteworthy, therefore, that similar certificates have also been issued by a number of decidedly non-affluent and non-urban cities outside the Tokyo metropolis (see fig. 3). These include Iga City in Mie Prefecture (April, 2016), Takarazuka City in Hyogo Prefecture (June, 2016), Naha City in Okinawa Prefecture (July, 2016), and Sapporo City in Hokkaido Prefecture (June, 2017).

At this point, it is important to note that it is not my intent to argue that post-disaster activism alone is responsible for the emergence of the certificates, nor that the certificates themselves constitute anything more than a geographically-restricted symbol with little actual influence over the realities of

queer Japanese people's lives. Rather, as interview participants situated these certificates in a general growing public awareness of queer people's existence and needs in Japan, the certificates indicate a geographically-specific, but noteworthy change from pre-3.11 policy about these matters. Furthermore, several of my participants from the 2013 study have modified their personal lives. Five participants have gone from being highly secretive about their sexuality to publicly marrying their same-sex partners. One who was privately struggling with both sexuality and gender identity issues has since transitioned to openly living life as a man and is engaged to marry his girlfriend. The most striking example of the latter is that of Masuhara Hiroko.<sup>10</sup>

At the time of our 2011 interview, Masuhara was very protective over the privacy of the woman she was dating and was very concerned that her partner's identity not be exposed in any way. The year after our interview, Masuhara and her partner Higashi Koyuki<sup>11</sup> made international news for their high-profile wedding at Tokyo Disneyland.<sup>12</sup> Higashi is a celebrity in Japan because of her time as a performer in the Takarazuka revue from 2005-2006 and her outspoken advocacy for queer rights in Japan. The couple regularly make international headlines for their activism in Tokyo including by lobbying for the same-sex certificates that they hold in Shibuya ward.

Masuhara's 2017 interview echoed that of others in the group in that she stressed the importance of the post-disaster context in creating space for transformative ways of thinking about queerness in Japan. Another participant echoed this view: "We are seeing a kind of feedback loop in that the disasters created the opportunity to talk about both gender and queer issues in Japan, and growing awareness of queer people enables discussion about specific needs in disasters too." In line with this view, there is also growing evidence that feminist activism around disaster planning and reconstruction is increasingly finding commonality with queer activism. Of the 11 participants who had experienced some form of queer-related activism over the past six years, seven mentioned having collaborated in some capacity with NGOs dedicated to the needs of women in general. Underscoring these perceptions, eight participants stated that the aims of both queer activism and feminist organizations have been increasingly overlapping. All participants attributed this to a post-3.11 atmosphere of "opening" in some way (participants' minds, the public discussion on various matters including sexuality and gender, and ability for diverse people to speak out in different ways and locations than before). One participant eloquently explained, "Internationally and domestically, I feel that there is a door wide open for addressing enormous issues around gender and sexuality ... through the lens of our personal experiences with 3.11." Clearly the participants in this study are determined to make sure that this door does not close again.

## **Conclusion: Towards a Transformative Resilience**

Transformative resilience is a useful concept for understanding contemporary social changes in Japan's post-disaster context because it encompasses both the vulnerabilities and capacities of individuals living in society's margins, illuminating processes of social change at multiple levels.

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<sup>10</sup> I use Masuhara's real name because she is a publicly known and internationally recognized author, activist and media figure who is well known for her visibility and activities inside and outside Japan.

<sup>11</sup> Similarly, Koyuki Higashi's public persona is commonly recognized in media, including on her Wikipedia page, and she is an outspoken queer rights activist, author and actress.

<sup>12</sup> Koyuki Higashi, 2012, "First Same-Sex Wedding at Tokyo Disney Resort," web log entry, March 5 2012, accessed 3 December 2017, <http://koyuki.higashi.tumblr.com/post/44615604860/>.



Prefiguring a reality in which disasters have less of an impact on marginalized populations, this concept can offer a much-needed alternative approach to unsettled debates about the appropriateness of resilience in studying disasters. Participants' personal and civil society activities in the post-3.11 context illustrate how connections across geographical boundaries and social categories in Japan are being forged in new ways in the post-disaster period. Queer NGOs increasingly appearing in Tohoku are more willing to collaborate across distant locations, and social barriers that separated cisgender heterosexual women from lesbians, bisexuals, and trans women are becoming less significant as their goals increasingly overlap. Participants felt that Japanese feminist organizations are increasingly working with queer networks and that queer organizations are contributing to developing strategies for disaster preparation across multiple locations in Japan. While these examples may be on a very small scale, they nevertheless offer a significant departure from dominant notions of sexuality, gender and rural Japan, seeming to hint at what Doreen Massey has termed a more global, progressive sense of place (1994). What gives a place like Tohoku or Japan its unique character is not a long, singular internalized history, but the fact that it is being created and recreated out of a particular assemblage of networks, articulated together at a particular location, with yet unknown effects on community resilience and transformational place-making practices.

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# Images of Japanese Women: An Analysis of Language Use in Advertisements

Noriko Yabuki-Soh

## Introduction

It has been nearly a quarter of a century since Tanaka (1994) examined the language of advertisements and explored how women are specifically portrayed in the British and Japanese media. Dyer (1982), who investigated advertising communications in the early 1980s, stated that advertisers are almost always men, and that their target audience tends to be women. Tanaka observed that this trend remained the common situation in Britain and Japan during the 1990s. Through her analysis of data, Tanaka concluded that the image of the ideal woman in both cultures was covertly manipulated by the advertisements' creators. Two decades later, statistics (JMPA) show that in 2010, 35 percent of advertising industry workers in Japan were women. Japan has been experiencing some social and political movement in terms of the improvement of women's rights. However, has the use of covertly manipulated images of women in advertising that Tanaka observed in the 1990s changed since then? The present study investigates the language used in advertisements that portray the desirable women found in the specific medium that appears to continuously attract young women in present-day Japan: women's magazines.

## Advertising Language

### *Relevance Theory and "Covert Communication"*

In their Relevance Theory, Sperber and Wilson suggest that relevance is the key to human cognition. According to their Principles of Relevance, "human cognition tends to be geared to the maximisation of relevance," and "every act of ostensive communication communicates a presumption of its own optimal relevance" (1995, 260). In her interpretation of Relevance Theory, Tanaka (1994) indicates that it is people's thoughts that are communicated when they try to achieve optimal relevance, and that the ultimate goal of communication is to alter the hearer's thoughts. In order to reach this goal, a communicator attempts to change the cognitive environment of a hearer. Tanaka goes on to say that thoughts take the form of sets of assumptions that hearers are capable of believing and entertaining. In the context of advertising communications, the ultimate goal of advertisers is to change the thinking of uninterested customers and make them buy their products or services.

According to Crystal and Davy (1983), there are two main functions in advertising: informing and persuading. In the case of commercial advertising, the importance of persuasion exceeds that of information (Packard 1981). The advertisers' task is to "persuade" their audience to buy their products or services, rather than merely "inform" them of their products or services. In order for advertisers to catch their audience's

attention and make them remember their products or services, certain strategies need to be employed in their language use. Bencherif and Tanaka (1987) note the effectiveness of a covert form of information transmission. They observe that, as opposed to ostensive communication in which the speaker intends to alter the *mutual* cognitive environment of the speaker and the hearer, covert communication is a case of communication in which the speaker intends to alter the hearer's cognitive environment *without* making such intention mutually manifest. Thus, the most economical means of communicating the speaker's thought is to speak not literally but "loosely," and a covert form of information transmission is often more effective than an overt form. By employing a covert form of communication, advertisers can make their audience forget that they are trying to sell them something and, more importantly, they can also avoid taking responsibility for the social consequences that may arise out of certain implications made in the advertisements, as shown in the following section.

## Language and Images of Japanese Women in Advertisements

As part of her work on the analysis of language use in advertisements in Britain and Japan, Tanaka (1994) takes a close look at the use of puns and metaphors in advertisements from the viewpoint of Relevance Theory. In the case of puns, two or more interpretations are intentionally triggered by the creator of a pun, but the audience rejects the most accessible interpretations in search of a more acceptable interpretation. As for the use of metaphors, the audience is invited to see resemblances between the promoted product or service and the object or property featured in the metaphor. According to Tanaka, puns and metaphors thus require greater processing effort than straightforward utterances and, as a result, they achieve "optimal relevance" because they attract and retain the audience's attention. Moreover, Tanaka observes that, by using covertly presented puns and metaphors, advertisers could avoid taking responsibility for certain social consequences. For instance, when the second interpretation to be recovered from a pun involves sexual innuendo, or when the weakly communicated metaphor represents the notion of snobbery, advertisers can escape responsibility for any negative social reactions that might emanate from the public, since the responsibility falls on the audience who reaches such assumptions.

Tanaka also shows in her work how the meanings of certain key words and concepts are extended and altered in advertisements that target women. She finds specifically that three words – intelligence, individualism, and feminism – are frequently used in relation to women in advertising, and that these words are used in ways that go beyond their standard meanings. Examples for each of those words analyzed by Tanaka are shown in (1), (2), and (3), respectively.

- |  |                |
|--|----------------|
| (1) 知的で上品なシルクブラウス。<br>intelligent-COP noble-COP silk blouse<br>An intelligent and noble silk blouse.   | [Tokyo Blouse] |
| (2) 人生を個性的に楽しむ女性たちのために。<br>life-ACC individualistic-ADV enjoy woman-PL of sake for<br>For women who enjoy their life in an individual style. | [Guccini]      |
| (3) 都市ガスってフェミニストね。<br>City gas-COMP feminist FP<br>City gas is a feminist, isn't it?   | [Tokyo Gas]    |

(Tanaka 1994, 110, 119, 126)

As represented in (1), Tanaka observes that such words as *chisei* “intelligence” and *chiteki* “intelligent,” when applied to women, tend to be employed in an extremely restricted and strange way, where intelligence indicates one’s appearance rather than mental capacity. The example shown in (2), which roughly translates into “For women who enjoy their life in an individual style,” reflects the association of individualism with fashion. Here, individualism means buying certain kitchen products from Italy, which is a country that in Japan is regarded as a producer of high quality fashion goods. The example in (3), “City Gas is a feminist, isn’t it?” is a well-known advertising caption that was created in the early 1980s. This phrase was used in a series of Tokyo Gas advertisements that promoted various devices that could be used to prevent gas leaks, and it was so successful that it won the prestigious Asahi Advertising Prize in 1984. This specific advertisement came with an illustration that depicted a woman who is obviously in a kitchen, wearing an apron and drying a dish with a dishcloth. According to Tanaka,

... the company is clearly being described as “feminist” on the ground that it has come up with these various ingenious devices in order to help women with their work in the kitchen. The use of the particle *ne* marks the utterance as feminine. The audience is encouraged to imagine a woman’s voice praising the company for improvements in gas equipment, which help women with their household duties and make their lives safer. The word *feminisuto* is apparently used to laud a desirable quality in men, in that the company is male dominated (Tanaka 1994, 127).

Through her analysis of data based on Relevance Theory, Tanaka concluded that despite the frequent use of words such as intelligence and individualism, which might on the surface indicate new images of women, a closer examination revealed the reinforcement of traditional roles for women. She suggested that these images of ideal women were covertly manipulated by advertisers.

Considering the recent improvements in women’s status in Japan, are such images of women found in the current media different in any way? Based on Tanaka’s (1994) framework, the present study examines the language used in the media that promotes various products aimed at young women in present-day Japan.

## The Study

### Data

Data were collected from advertisements for clothing and fashion-related items that appeared in five popular women’s magazines published in Japan in August and September of 2017. Table 1 shows the publisher, chief editor, and spring circulation of each magazine.

Magazine	Publisher	Chief Editor	April-June 2017 Circulation
CanCam	Shogakukan	Kaoru Shiotani	128,333
JJ	Kobunsha	Sayaka Hara	127,767
MORE	Shueisha	Rikako Tawara	190,000
non-no	Shueisha	Wataru Kobayashi	183,333
Ray	Shufunotomosha	Sayaka Tokida	80,400

**Table 1.** Women’s magazines used for data collection

Targeted readers of these magazines are women in their twenties. Judging from their first names, all of the chief editors, except for the one for *non-no*, appear to be women.

Besides the authentic advertisements for products and companies that sell clothing, perfume, and cosmetics (see Fig. 1a), women’s magazines often use up one or two pages at a time in their main texts to introduce specific products or companies of the month, or provide fashion-related advice using different products together with the company names and prices (see Fig. 1b). At the end of each issue there is a long list of distributors of those products where readers can find company names and store locations. The language found in such texts that was used to promote specific products was therefore included in the data. Some specific linguistic devices employed in those advertisements were identified and analyzed based on Tanaka (1994).

## Results

### ▪ Puns

First, the use of puns in the advertisements, which was the major linguistic device discussed in Tanaka (1994), was examined. A pun is defined as “the usually humorous use of a word in such a way as to suggest two or more of its meanings or the meaning of another word similar in sound” (*Merriam-Webster Dictionary*). Many examples of puns such as “Change for Good” [UNICEF] and “でっかいどお。北海道 Dekkaidoo. Hokkaido” [All Nippon Airways] are found in everyday life, including in advertisements. According to Tanaka, puns are one of the most common forms of wordplay.



(a)



(b)

Figure 1. Sample advertisements

However, in the case of women's magazines, the use of puns was found to be extremely rare. Example (4) shows a pun that is used for the name of a skin care product (pore cleanser):

- (4) CARE-NAケア [non-no]  
care-COP/pores care

“Care-na,” obviously a made-up Japanese adjectival noun, sounds like *ke-ana*, pores, and it is written in romanized characters. This is followed by another instance of the word “care” in Katakana. It is a case of puns that involve both English and Japanese words. It appears to be quite a brilliant way to convey two meanings in one package without showing the word *ke-ana* in Kanji, which would not be very appealing to young women. This was the only case of puns found in the advertisements examined. Tanaka (1994) observes that puns are generally “assumed to have a low intellectual status” (59), and that might be the reason for their infrequent appearance in women's magazines.

### ▪ Metaphors

According to Fromkin, Rodman, Hyams, and Hummel, a definition of metaphor is “[n]onliteral, suggestive meaning in which an expression that designates one thing is used implicitly to mean something else, e.g., *The night has a thousand eyes*, to mean ‘One may be unknowingly observed at night’” (2013, 660). Metaphors are similar to puns, but according to Tanaka (1994), a pun normally includes two or more “chunks” of information where contextual effects are strongly communicated, whereas a metaphor tends to include a single expression with a range of weak implications. In comparison to puns, far more cases of metaphors were found in the advertisements that were examined. The first set of examples is presented in (5).

- (5) やっぱり黒が、いちばん無敵！ [MORE]  
after all black-NOM most invincible  
After all, black is the most invincible!
- 目元から攻略せよ！ [Ray]  
around the eyes-from conquer-IMPERATIVE  
Attack from around the eyes!
- 秋、オトナで攻めるならモノトーンスタイルが◎。 [Ray]  
autumn mature-by attack-if monotone style-NOM good  
In autumn, attack with maturity; monotone style is the answer.
- チャーミングなドット柄を味方に。 [CanCam]  
Charming-COP dot pattern-ACC ally-for  
Make the charming dot pattern your ally.
- 夏ならではのリゾート柄で攻める！ [CanCam]  
summer-if-COP-TOP-GEN resort pattern-by attack  
Attack with the resort pattern that is only (suitable) for summer!
- コスメお試し隊 [CanCam]  
cosmetics trial squad

The cosmetics trial squad.

CARE-NAケアの救世主降臨！

[non-no]

[product name]-GEN saviour descend

Your saviour, CARE-NA Care, has descended!

One strong tendency found in these metaphorical expressions is to treat fashion as war. Along with the war-related vocabulary such as *muteki* “invincible” and *semeru* “attack,” sentences often end with a noun or an imperative form of a verb that is occasionally accompanied by an exclamation mark. As a result, the tone of voice in each message is surprisingly masculine, as if it is coming from a comrade in a battlefield. It appears that the reader is encouraged to see resemblances between fashion and war, something exciting and worth fighting for.

Another set of examples is shown in (6).

- (6) ボルドー&ネイビーのおしゃれなとり入れ術 [Ray]  
 Bordeaux & navy-GEN fashionable accommodating technique  
 A technique for fashionably accommodating Bordeaux and navy.
- 目線UPアイテムで「スタイル◎」なコーデに! [JJ]  
 gaze up item-by style correct-COP coordination-to  
 (Achieve) correct style coordination with “gaze up” items!
- 晩夏はイレヘムが正解! [Ray]  
 late summer-TOP irregular hem-NOM correct answer  
 In late summer, irregular hems are the correct answer!
- 着こなしRule [Ray]  
 outfit rule  
 Outfit rules.
- 足元におしゃれを仕込むならニュアンスソックスで決まり [non-no]  
 feet-to fashion-ACC train-if nuance socks-with decided  
 If you are going to acquire fashion around your feet, nuanced socks will make it.
- 8月の買って正解服! [MORE]  
 August-GEN buy-GER correct answer clothing  
 The right clothing to buy in August!
- コーディネート マンネリ問題 [MORE]  
 coordination mannerism problem  
 Coordinating mannerism problems.

Another trend found in these metaphors is to treat fashion as an important lesson where you “learn” and “master” special skills or techniques, and there are “rules” to follow and “correct answers” to problems. Similar to the metaphoric expressions related to war, words that indicate important lessons tend to appear as a predicate of a sentence, often accompanied by an exclamation mark. The tone of voice appears to be that of a senior member of a club or school, a *senpai*, who is giving the reader a piece of important advice on fashion.



In the case of both examples, metaphors are used to catch the reader's attention and to require her to make imaginative effort to comprehend each caption and eventually remember the products they promote.

### ▪ Borrowing and Variation

There are other linguistic devices that were found to be covertly employed in the language of advertisements in these magazines. One of them is borrowing, which is defined as “the incorporation of a loan word from one language into another (e.g., English borrowed *buoy* from Dutch)” (Fromkin et al 2013, 645). As Daulton observes, most of the loanwords “are first introduced to the Japanese public by a very small number of individuals with most Japanese people having never heard or read the word before, and having no role to play in its borrowing” (2004, 285), and media personnel and copywriters are typically some of the active borrowers (Loveday 1996, 103). Loanwords in Japanese, especially those represented in Katakana, derive mainly from English words and are mostly used as nouns. When words are borrowed from another language into Japanese, a couple of linguistic changes can be observed. A phonological change such as from [θri] to [su:ri:] is a common linguistic change, and sometimes a categorical change can occur as well, such as from the adjective “chic” to the adjectival noun *shikku-na*, or from the noun “Google” to the verb *gugu-ru*.

The language used in the advertisements for young women is full of loanwords. Some examples are presented in (7).

- (7) カジュアルだけど女性らしい黒のオープンショルダーブラウス。 [CanCam]  
 casual-COP but feminine black-GEN open shoulder blouse  
 Casual yet feminine black open-shoulder blouse.
- 大人なサマートーンをまよえばドラマティックな夏になりそう♥ [CanCam]  
 mature summer tone-ACC wear-if dramatic summer become-seem  
 If we wear a mature summer tone, we can anticipate a dramatic summer.
- MIU MIU ... レディなバッグたち [Ray]  
 MIU MIU ... lady-COP bag-PL  
 Lady-like bags.
- 秋のはじめには“軽やかな”トップスがマスト! [Ray]  
 autumn-GEN beginning-at-TOP “light”-COP tops-NOM must  
 For the beginning of autumn, (you) must (wear) “light” tops!
- ギンガムチェックはおしゃれガールのマストハブ! [CanCam]  
 gingham check-TOP fashionable girl-GEN must have  
 Gingham check is (something that) fashionable girls must have!
- 今すぐ、トレンドボトムをGETしなくちゃ! [CanCam]  
 right now, trend bottom-ACC get must do  
 You should get trend bottoms right now!
- 大ぶりなイヤークセでフェミニニ度UP。 [MORE]  
 large-size ear accessory-with feminine-degree up.  
 Your degree of femininity (goes) up with large earrings.

マニッシュなグレンチェックをMIXしておしゃれ度UP [non-no]  
 mannish-COP Glen check-ACC mix do-GER fashion-degree up.  
 Your degree of fashion (goes) up if you mix (something with) mannish Glen check.

オンオフ使える・・・プチプラ服。 [MORE]  
 on off can use ... petit price clothing  
 Petit price clothing that you can use on and off.

Many of the loanwords are regular nouns, but a number of English adjectives (e.g., “casual,” “mannish”) are borrowed and changed into adjectival nouns (e.g., *kajuaru-da*, *manisshu-na*). Interestingly, a non-canonical categorical change—for instance, from the noun “lady” to the adjectival noun *redii-na*—is also observed in the advertisements. Such categorical change is normally unacceptable in other contexts. In the same example, the plural form of the noun *baggu* “bag” appears as *baggu-tachi*, with the suffix *-tachi* that is normally attached to nouns that describe people. A number of examples of *masuto* and even *masuto habu*, which obviously came from the English “must” and “must have,” are also observed. These are used as a predicate of a sentence, which, again, is normally unacceptable. English words such as GET, UP, and MIX are occasionally written in the upper-case alphabet. The last example, *on-ofu* “on-off” and *puchi-pura* “petit price,” sounds like wordplay. These unique ways of using such loanwords appear to catch and hold the reader’s attention.

In addition to the use of loanwords as a whole, clipping of loanwords is often observed in the advertisements. Clipping is a type of word formation that is defined as “the deletion of some part of a longer word to give a shorter word with the same meaning, e.g., phone from telephone” (Fromkin et al 2013, 647). Clipping can be used as a device to deliver the meaning of a word in an efficient way. There are two types of clipping in Japanese: one is to leave out some parts of the words, as in changing *suupaa maaketto* “super market” to *suupaa*, and the other is to take the first two moras of each composite, as in changing *rimooto kontorooru* “remote control” to *rimokon*. Examples of clipping found in the advertisements are shown in (8).

- (8) アクセ ← アクセサリー ← accessory  
 イレヘム ← イレギュラーヘム ← irregular hems  
 エステ ← エステティック ← esthétique  
 キャミ ← キャミソール ← camisole  
 コスメ ← コスメティック ← cosmetics  
 コーデ ← コーディネーション ← coordination  
 コラボ ← コラボレーション ← collaboration  
 ジャンスカ ← ジャンパースカート ← jumper skirt  
 デニスカ ← デニムスカート ← denim skirt  
 フェミシヨル ← フェミニンシヨルダー ← feminine shoulder  
 フोटジェ ← フोटジェニック ← photogenic  
 ヘビロテ ← ヘビーローテーション ← heavy rotation  
 マリクワ ← マリー・クワント ← Mary Quant  
 ワンピ ← ワンピース ← one piece

As observed in many other contexts, clipping often results in three- to four-syllable words that can be found in fashion-related advertisements as well, but many of them are seen exclusively in women’s magazines. Some of these words are easy to guess, but others could be a nonce (i.e., one-time) borrowing, and therefore quite

challenging for those who are not familiar with the terms. The readers of the magazines are required to familiarize themselves with such vocabulary in order to comprehend the content of the advertisements.

### ▪ Compounding

Compounding, a word formation process in which two or more words are combined, is another linguistic phenomenon often observed in the advertisements examined. There are mainly three types of compounds in Japanese: native (e.g., *nomi-mizu* “drinking water”), Sino-Japanese (*booeiki-gaisha* “trading company”), and hybrid (*anzen-pin* “safety pin”) compounds. A wide range of unique compounding is found in the advertisements for young women, as seen in (9).

- |            |   |          |
|------------|---|----------|
| (9) 甘カッコいい | <i>ama kakkoi</i> “sweet-cool”              | [JJ]     |
| 新レディカジュアル  | <i>shin redii kajuaru</i> “new-lady-casual” | [JJ]     |
| フェミニンカジュアル | <i>feminin kajuaru</i> “feminine-casual”    | [non-no] |
| オトナっぽ可愛い   | <i>otonappo kawaii</i> “mature-ish cute”    | [Ray]    |
| シンプル可愛い    | <i>simpuru kawaii</i> “simple-cute”         | [MORE]   |
| ラフ可愛く      | <i>rafu kawaiku</i> “rough-cute”            | [Ray]    |
| 大人ガーリー     | <i>otona gaarii</i> “mature-girly”          | [non-no] |
| 大人かわいく     | <i>otona kawaiku</i> “mature-cute”          | [CanCam] |

Hybrid compounding is commonly observed in these examples, which makes the words stand out. Close examination of the compounded elements and meanings of these examples indicates that they often include a combination of two semantically opposing members—such as *amai* “sweet” and *kakkoi* “cool” or *redii* “lady-like” and *kajuaru* “casual.” The message of each example appears to be “You can be cool but need to keep your sweetness,” or “Be casual, but stay lady-like at the same time.” A combination of *otona* “mature” and *kawaii* “cute” also repeatedly appears in different advertisements in different magazines. The sentence shown in (10) is a caption that was used to promote a specific fashion line in one of the magazines.

- (10) “可愛い”と“大人”を両立させた親近感スタイルに大注目！  
 “cute” and “mature”-ACC compatible-CAUS-PASS close feeling style-to attention!

This sentence, which roughly translates into “Pay extra attention to the intimate style that has it both ways with ‘cute’ and ‘mature!’” appears to explain the background of using the compounding of two antonymous words.

### ▪ Sentence-final particles

Finally, the use of sentence-final particles such as *ka*, *ne*, and *yo* used in the advertisements was examined. Particles or postpositional markers in Japanese are used to represent case relationship or functions similar to English prepositions, but when positioned after sentence-final verbs, they also represent the speaker’s attitude

toward the content of the sentence (Kuno 1973, 5). Examples of sentence-final particles found in the advertisements are shown in (11).

- (11) フォトジェ服は新宿ミロードで見つかるよ [non-no]  
 photogenic clothes-TOP Shinjuku Mylord-at be found-FP  
 You can find (these) photogenic clothes at Shinjuku Mylord!
- やっぱりピンク、LOVEだよね? [Ray]  
 as expected pink love-COP-FP-FP?  
 As expected, pink is love, isn't it?
- 今年の秋は断然くすみピンクだよね♥ [CanCam]  
 this year-GEN autumn-TOP definitely dusky-pink-COP-FP-FP  
 As for this year's autumn, dusky pink will definitely do, won't it?
- マリクワの新スキンケアが季節の変わり目にイイらしいゾ!? [non-no]  
 Mary Quant-GEN new skin care-NOM season-GEN change-for good appear-FP  
 It appears that Mary Quant's new skin care is good for the change of seasons, I tell you!

These sentence-final particles used in advertisements directed at young women, the readers of the magazines, were found to be quite masculine. *Yo* was a common one that is directly attached to the verb or copula. The last example uses *zo*, which is supposedly a very masculine-sounding particle, but unlike Tanaka's example of *Tokyo Gasu tte feminisuto ne* "City Gas is a feminist, isn't it?" there were no examples of *ne* (which makes the sentence sound very feminine) directly attached to the noun. A closer examination of this "masculine-sounding" use of particles reveals that they are often accompanied by an exclamation mark or a heart-shaped icon. The particle *zo* is written in Katakana. Because of these additional devices, the tone of voice appears to become more intimate, friendly, and playful.

### Discussion

The language used for promoting specific clothing and fashion-related products in the women's magazines appears to employ covert communication strategies that are aimed at achieving "optimal relevance." A reader of these magazines, when encountering a variety of metaphoric expressions or carefully tailored loanwords and compound words in the advertisements, will likely make a processing effort to understand the message that the advertisers intend to convey. If the advertisers are successful in altering the reader's thoughts (i.e., the reader decides to buy the products), the ultimate goal of the communication is achieved.

In the close community of women's magazines, the advertisers or editors provide their readers with a unique set of vocabulary and expressions and encourage them to be like the role models they present by purchasing the products they recommend. Unlike Tanaka's (1994) observations back in the 1990s on the language use created in the male-dominant advertising industry, the voices of advertisers and editors of these magazines in present-day Japan sound like those of close and reliable comrades or *senpai*. The creators of those advertisements appear to promote an amicable relationship between the advertiser/editor and audience by providing encouragement and useful advice in the context of "fashion as war or life lesson," yet the messages that they convey do not go much beyond the traditional qualities expected from women. The ideal woman portrayed in those advertisements is someone who is "mature but still cute," or "cool and yet feminine."

## Conclusion

After analyzing the data she found in advertisements targeted at women, Tanaka concluded that “Japanese society seems to have coped with potential threats from the introduction of concepts such as individualism and feminism by interpreting them against the background of traditional values, or by removing some of the contextual implications attached to the concept which contradict conventional ideas” (1994, 131). The results of the present study, which took place 23 years after Tanaka’s study, also showed that, despite the increasing number of women involved in the creation of advertisements, images of the ideal woman in advertising in present-day Japan are largely defined as staying “cute” or “feminine” rather than becoming “intelligent” or “liberated,” although the language used in those advertisements is covertly chosen and employed in ways that do not overemphasize the advertisers’ intentions. In conclusion, the study suggests that consumers could be heavily influenced in their daily lives by these images of women, and that language use in such media reflects uncertainty with regard to positive change occurring in the lives of young Japanese women in the near future.

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# Tokugawa's Environmental Philosophy

Jay Goulding

## Introduction

In respect to Tokugawa scholarship, much appears on the neo-Confucian debates of Ogyū Sorai 荻生徂徠 (1666-1728) and Ito Jinsai 伊藤仁斎 (1627-1705). Much revolves around the incidents of *Chūshingura* 忠臣藏, the Treasury of Loyal Retainers (1701-1703). Much centres on the innovations of culture from the love stories of Chikamatsu Monzaemon 近松門左衛門 (1653-1725) to the townsfolk tales of Saikaku Ihara 井原西鶴 (1642-1693) to the Buddhist poetry of Bashō 松尾芭蕉 (1644-1694) to the *ukiyo-e* 浮世絵 of Katsushika Hokusai 葛飾北斎 (1760-1849) and Utagawa Hiroshige 歌川 広重 (1797-1858). Noted scholars include Motoori Norinaga 本居宣長 (1730-1801), a progenitor of language and mythology as well as the tandem of Kaibara Ekken 貝原益軒 (1630-1714) and Ishida Baigan 石田梅岩 (1685-1744), whose Daoist-inspired *chōningaku* 町人學 (townsfolk learning) serves as an ethical creed for daily commerce (see Goulding 2001, 2002, 2005, 2006a, 2006b, 2007, 2008a, 2011, 2016a, 2016b).

Ironically, little attention goes to Tokugawa's *environmental achievements*. In addition to accomplishments in culture and philosophy, one of Tokugawa's hidden gems is its ability to *recycle*. From tinkers to umbrella sellers to used barrel buyers, Tokugawa generates an early form of a *sustainable society*. Beginning with the rich cultural backdrop of Tokugawa as described above, the paper will review the findings of Ishikawa Eisuke 石川英輔 (1933-), an expert on Edo 江戸 ecology. The impact of Shinto, Buddhism and Confucianism are important for environmental policies in Tokugawa. Finally, the paper will revisit a fascinating argument by Watsuji Tetsurō 和辻哲郎 (1889-1960) on the contrast between East Asian and Western civilizational views in *Climate and Culture* (*Fūdo* 風土, 1935), a unique study influenced by Watsuji's tour of Europe, and his detailed analysis of the phenomenology of Martin Heidegger (1889-1976).

## Ishikawa Eisuke

In Carin Holroyd and Ken Coates' *Japan in the Age of Globalization*, I write about Edo's ability to adapt for the future.

The idea of Tokugawa [1603-1868] globalization might at first appear quite contradictory... Japan of the Edo Period is not completely isolationist. Its philosophy is one of innovation, openness and accommodation to many cultures. *Sakoku* [鎖国 “national isolation”] is a brilliant strategy which restricts the flow of foreigners and foreign trading centers in Japan but does not close off Japan to the world. Its purpose is to preserve traditions of Japanese civilization while engaging with European and Asian cultures. By 1700, the Dutch and Chinese are allowed to trade exclusively at the port of Nagasaki. The impact of this policy results in increasing the volume of trade. The restricted flow enhances interest in Japan and at the same time slows the political and religious positions of Europeans (Jansen 1992, 35–41). The internal struggles in Japan over strategies for dealing with the rest of the world are not without heated debate. At

the end of the Ashikaga Shogun, many *samurai* (侍), weary from long periods of clan warfare are opposed to the development of any types of global policies. As to the fate of the newly constructed towns, folklore has it that the famous warlord Oda Nobunaga (織田信長 1534-1582) announced: "If the canary does not sing, kill him." By this, he means that if the towns are to fail, stop them up immediately. Toyotomi Hideyoshi (豊臣秀吉 1536-1598) responds: "If the canary does not sing, make him." By this, he means that the towns would need martial law in order to survive. Tokugawa Ieyasu (徳川家康 1543-1616) concludes: "If the canary does not sing, wait until he does." By this, he means to give the towns a chance over a period of time. By the end of the sixteenth century Tokugawa's words of tolerance and delay become the blueprint for the Edo Period that is much in need of new commercial interactions. The town cultures of Edo, Osaka and Kyoto see an influx of European and Asian traders. This culture is known as *ukiyo* (浮世 The Floating World) that includes teahouses, baths, brothels and theatres. Generating out of the Floating World towns are paintings, poetry, literature, *bunraku* (文楽 puppet plays) and *kabuki* (歌舞伎) theatre that are both popular amongst the townsfolk and in turn exported to an inquisitive Europe. Despite *sakoku*, Chinese junks continue to arrive at a welcoming Nagasaki port. Smuggling and offshore unloading are common. Marius Jansen, a renowned historian, argues against Tokugawa's false image of isolation while instead concentrating on its true indebtedness to global relations. He writes: "Chinese influence rose to a peak in the Tokugawa years. The rising tide of literacy meant that more Japanese could read and write Chinese. The production of poetry in Chinese, something expected of every educated person, was so great that it may have exceeded the amount of verse composed in Japanese" (Jansen 1992, 4). Various Chinatowns populate the coast from the Kii peninsula to Kyushu and in Yamaguchi, Matsuyama, Kawagoe and Odawara (Jansen 1992, 7). In 1853, Matthew Perry's "black ships" arrive in Japan from the United States of America, followed in 1856 by Townsend Harris, the first American consul. The resulting trade treaties seem to end Tokugawa's official seclusion policy. (Goulding 2011, 16-17)

By 1720, the overall population is 30 million with Edo reaching 1 million. In 1801, Edo is the largest city in the world with London at 860,000. Unlike today's reliance on imports for food, wood products, and energy, Japan in the Edo Period is self-reliant. Because of scarcity, Edo made particularly good use of limited resources of coal and ash with many craftspeople making use of recycling for everyday products. Temple schools for commoners would own their own books. One single arithmetic schoolbook was used for over 100 years.

The following is Ishikawa Eisuke's list of daily examples of recycling in Tokugawa as outlined in the *Japan for a Sustainable Society Newsletter* (2003):

- **Tinker (repairers of metal products)**  
Tinkers repaired old pans, kettles, and pots, even those rendered useless by holes in the bottom. They had special techniques to use bellows to raise the temperature of charcoal fires and repair holes using other metal pieces or by welding.
- **Ceramics repairer**  
These specialized craftsmen glued broken pieces of ceramics with starch extracted from sticky rice and heated for coagulation.
- **Truss hoop repairer**  
Until 40 to 50 years ago, people usually used wooden tubs and barrels to store liquids. Wooden tubs and barrels were made of wooden slats fastened by bamboo hoops. When the hoops aged and broke or warped, the craftsmen fixed the tubs and barrels with new bamboo fasteners. There were many other kinds of specialized craftsmen to repair broken items, including paper lanterns and locks, replenish vermilion inkpads, and refurbish old Japanese wooden footwear, mills, and mirrors, to name a few...
- **Used-paper buyers**

These buyers bought old shopkeepers' books, sorted and sold them to paper makers. In those days, Japanese paper (*washi*) was made of long fibres of over 10 mm, and specialized paper makers bought and blended various kinds of used paper to make a wide range of recycled paper, from bathroom tissue to printing paper.

- **Used-paper collectors**

Some collectors were also specialized in used paper, but didn't have the financial resources to buy it. Instead, they picked up and collected trash paper by walking around the town and sold it to used-paper warehouses to get daily cash income.

- **Used-clothes dealers**

Until the end of Edo Period, clothes were more precious and expensive than today since all clothes at the time were hand-woven. It is said that there were about 4,000 old clothes dealers in the city of Edo.

- **Used-umbrella rib buyers**

Umbrellas in the Edo Period were made of bamboo ribs with paper pasted on. Used-umbrella rib buyers bought and collected old umbrellas and sold them to specialized warehouses. At the warehouses workers removed oiled paper from the ribs and repaired the rib structures, and then other workers were contracted to paste new oiled-paper onto the ribs to make new umbrellas. Incidentally, the oiled paper from used umbrellas was removed and sold as packaging material.

- **Used-barrel buyers**

When barrels became empty, specialized traders bought, collected, and sold them to specialized warehouses. Japan today has private collection systems for beer and sake (Japanese rice wine) bottles, and collection/recycling ratios are high. Some of today's used-bottle dealers are descendants of those who conducted this business in the Edo Period.

- **Singing collectors**

Some traders walked around the town, singing, "let's exchange, let's exchange," and offered small toys and candies to children in return for old nails and other metal pieces the children found while playing.

- **Candle wax buyers**

Wax candles were a precious commodity. Specialized buyers collected the drippings from lit candles.

- **Ash buyers**

Ash is a natural byproduct of fuelwood burning. During the Edo Period, buyers collected ash and sold it to farmers as fertilizer. Ordinary houses had an ash box, and public bathhouses and larger shops an "ash hut" for storage until buyers came by. Professor Takeo Koizumi, of the Tokyo University of Agriculture, wrote in his "Cultural History of Ash" ("Hai no bunkashi") that although other cultures in the world also used ash, as far as his research shows, Japan is the only country where ash merchants buy ash from the city for use in other parts of society.

- **Human waste dipper [scrounger, scouser]**

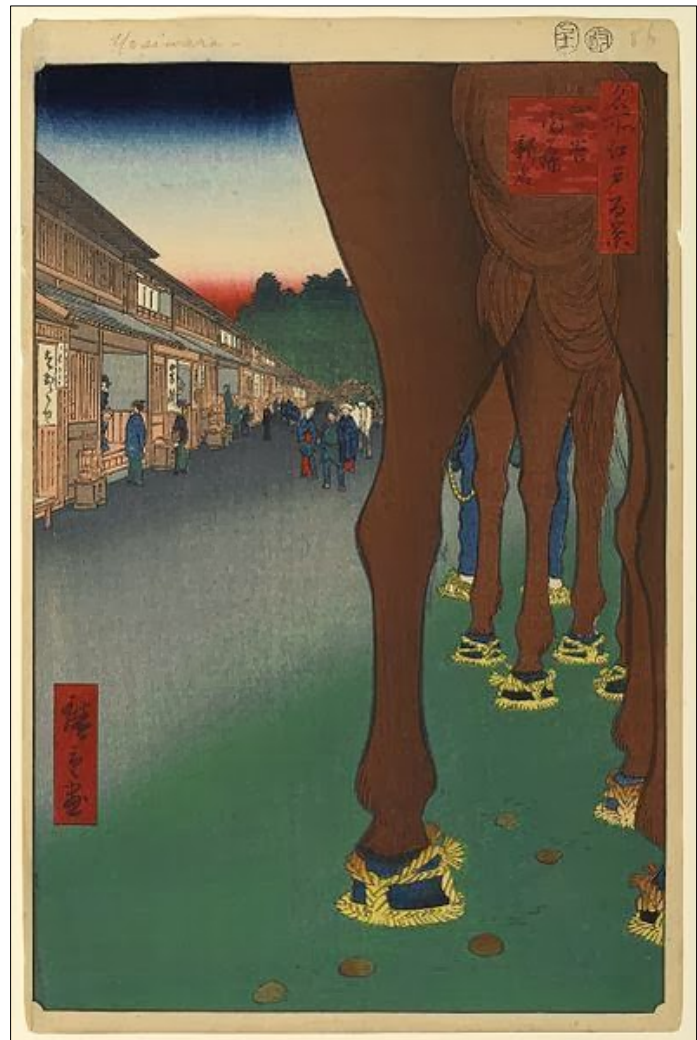
Until around 1955, human waste (night soil) was the most important fertilizer source for farmers in Japan. In many parts of Europe, before construction of sewage lines, human waste was simply thrown from the window to the street below, and the plague occurred repeatedly due to bad hygiene conditions. In contrast, in Japan human waste was treated as a valuable resource in those days. Farmers regularly visited homes with whom they had contracts and paid money or offered vegetables they had grown, in return for night soil to be used as fertilizer. As distribution channels became more established, specialized night soil warehouses and retailers emerged. Landlords with many tenants made good money from the night soil produced on their premises. There are even stories of friction between landlords and tenants about ownership of the night soil. Some farmers were very particular about their sources of fertilizer. For example, certain areas were regarded as sources of highly-coveted night soil for growing exclusive brands of Japanese tea. German chemist Justus von Liebig, often described as the father of modern



agricultural chemistry, praised use of night soil as fertilizer, saying that it is an agricultural practice without peer in its ability to keep cropland fertile forever and increase productivity in proportion to population increases. And there is a record that the first Westerner who saw the town of Edo was shocked, having never seen such a clean city.

Ishikawa Eisuke, a writer and lecturer at Musashino Art University (*Musashino Bijutsu Daigaku* 武蔵野美術大学) (whose famous ancestor was Tokugawa Ieyasu's 徳川 家康 [1543-1616] senior retainer) explains that much of Edo society is run by solar energy. Plants transform solar energy into branches, wood, stems, and fruit. Edo society is a sustainable society in which almost everything needed for living (food, clothing, and shelter) is provided by solar energy of the past two or three years (Ishikawa 2000). Up until 1887, all lighting in Japan came from paper-made lanterns and wax candles using oil and wax. Oil for lighting came from sesame seeds, camellia, rapeseeds, and cottonseeds along with whale and sardine oil. Even the oil cake residue after extraction becomes nitrogen fertilizer. Wax is made by squeezing the resin from sumac nuts. In short, all straw was used and recycled back to the earth or used to make braided hats, straw raincoats and sandals, and straw bags for rice. Farmers also used straw to feed cattle and horses and cover feedlots. In the area of shelter, straw was a common building material for outside and inside the house, including the roof, *tatami* 畳 mats and clay walls. Silk, cotton, and hemp are used for clothes. Paper was made of the bark of *kōzo* 楮 trees. For warmth, charcoal made from wood is used in *hibachi* 火鉢 braziers and *kotatsu* 炬燵 (a fireplace with coverlet) (Ishikawa 2000).

Transportation in Tokugawa usually means environmentally friendly cows hauling wagons or carts full of rice and vegetables alongside peasant porters wearing *yukatas* 浴衣 (light cotton *kimonos*) with carrying-poles, assisted by pack animals such as horses. The *haiku* 俳 and *senryū* 川柳 ("river willow") poet and Buddhist monk Kobayashi Issa 小林一茶 (1763–1828) of the *Jōdo Shinshū* 浄土真宗 (The True Essence of the Pure Land Teaching) writes humorously of peasants bowing before *daimyō* 大名 lords riding by and finding unexpected fortune on the ground in the shape of horse droppings to be recycled to nearby farmers for a good price (see Figure 1).



**Figure 1.** Utagawa Hiroshige 歌川 広重 (1797-1858)  
*Yotsuya Naito-Shinjuku* 四ツ谷内藤新宿  
 Source: 1857 series "One Hundred Famous Views of Edo" (*Meisho Edo hyakkei* 名所江戸百景). <http://www.artic.edu/aic/collections/artwork/196757/print>

陽炎や馬糞も銭に成にけり

*kageroo ya ma-guso mo zeni ni nari ni keru*

heat shimmers—  
even horse dung  
becomes money

Tr. David Lanoue (2013)

Although farmers would exchange money for excrement, they would also trade it for vegetables. As the cities start expanding, greater demand befalls farmers. Hence, chronic fertilizer shortages lead to rising prices through supply and demand.

The pioneering *anime* アニメ director Miyazaki Hayao 宮崎駿 gears his most famous film *Princess Mononoke* (*mononoke hime* 物の怪姫) towards a pressing ecological statement (Goulding 2001, 2006a, 2006b, 2016a). Miyazaki was captivated with the 14<sup>th</sup> to 16<sup>th</sup> centuries, a time of war where forests were depleted and iron ore was smelted in massive quantities (see McCarthy 1999, 185). In the film, Miyazaki reminds audiences of a gentler world with his idyllic return to the plush forests populated by tree spirit *kodama* 木魂 and ruled over by a Shinto deer god:

*Mononoke* [物の怪] is a ghost term popular in *anime* [アニメ], referring to a pestilence wielding entity. [There are a hundred terms in Japanese for ghost]. It is as dangerous as *kodama* [木魂, 木靈 tree spirits, echo dryads] are harmless. In this film, we see clans of boars, apes and wolves (metaphors for *ninja* [忍者]) as *kami* [神] trying to preserve their sacred forest against the onslaught of Lady Eboshi's [Eboshi Gozen エボシ御前] progress [iron ore smelting] and Lord Asano's [Asano Naganori 淺野長矩] war. The latter is possibly a reference to *Chūshingura* [忠臣蔵]. Miyazaki had once attempted an animation of the Heian period [平安時代 (794-1185)]. Eboshi's medieval courtesan robes conjoined with a noble's black hat [*eboshi* 帽子] seem to leave traces of that project (McCarthy 1999, 193, 200). The Forest Spirit [*Shishigami* 鹿神] tries to prevent peaceful forms from turning demonic but we see massive transformations of *mitama* [御霊] (souls of the dead) as they battle the cruelty of humankind. The all precious iron pellet as a *shintai* [神体] (receptacle for *kami*) becomes an instrument of harm. Even the sly Buddhist monk [Jiko-bō ジコ坊], dawned in a bear's skin, wants to possess it all. Recalling the ancient story of the *Nihon Shoki* [日本書紀] (Chronicles of Japan), the monk is on a mission for the emperor who wants to capture the head of the Night Walker [*Daidarabotchi* ダイダラボッチ (*yokai* 妖怪 bewitching spectre)] as it transforms. The treacherous monk gets more than he bargains for, just as the emperor does in the original story (Ross 1965, 39). The ecological and humanist themes fold the past into the present throughout *Princess Mononoke* which was the top box-office draw in Japanese history [now Miyazaki's *Spirited Away* (*Sen to Chihiro no Kamikakushi* 千と千尋の神隠し)] (Goulding 2016a, 162-163).

In *Mononoke*, Prince Ashitaka's アシタカ red elk, Yakul ヤックル (*Yakkuru*) acts to break the stereotype of nameless *samurai* horses. A prototype of this creature emerges in Miyazaki's early *manga* 漫画 of 1983, *The Journey of Shuna* (*Shuna no Tabi* シユナの旅) (see McCarthy 1999, 192). If we trust in the divine words of *kotodama* 言霊, Miyazaki's Shintoesque name, Miya (宮 a Shinto shrine) and Hayao (駿 'spirited horse' in its Chinese etymology) might be the personal origin of his fascination (Goulding 2006b).

## **Hōken Jīdai** 封建時代

We might remember that the hardworking peasants are second only to *samurai* in the Tokugawa caste/class hierarchy of “spam”: *samurai*, peasants, artisans, merchants (Kassel 1996, 9-12). As Ishikawa relates:

A long time ago, when excrement was a precious fertilizer, it naturally belonged to the person who produced it. Farmers used to buy excrement for cash or trade it for a comparable amount of vegetables. Fertilizer shortages were a chronic problem during the Edo period. As the standard of living in cities improved, surrounding villages needed an increasing amount of fertilizer. This resulted in further shortages, and thus fertilizer prices were continually rising. Meanwhile, while inedible, harvested straw was in great demand for various uses during the period. Realizing that straw was an important natural resource, farmers chose to grow a particular type of rice that would produce a large amount of straw. In the Edo Period, farmers were able to harvest rice that yielded about the same amount of straw in terms of weight. Its greatest use was as fertilizer, with half of the amount produced used to make compost or barnyard manure. About one third of straw produced was used as fuel. Straw burns easily and doesn't produce much heat, but large amounts were sufficient for heating bath water or for boiling rice. When people needed more heat, they often used straw as the kindling to start a stronger fire. The resulting straw ash was then used as a high-quality potassium fertilizer. The remaining straw was used by farmers to make a wide variety of straw products. They used these products at home or sold them to supplement their cash income. It is no exaggeration to say that Japan in the Edo Period was full of straw products. About half of the men at the time wore straw sandals. When moving to a new house, people usually wrapped their household goods with straw mats, binding them with straw rope. Used straw products were burned in the cooking oven, which was found in every household, or used as fuel at public baths. Farmers and “ash traders” then purchased the ash. In this way, almost all of the nearly 10 million tons of rice and straw harvested every year returned to the soil in some way or another. Carbon dioxide generated through fermentation or combustion was absorbed by plants for photosynthesis and thus transformed back into living matter. All of the energy required for this process was supplied by the sun. In other words, people in the Edo Period didn't have to think about recycling. All they had to do was to live normally and the rice and straw they produced (the key agricultural products) would end up back in the soil and sprout out again as rice seedlings next year. (2000, ch.4)

Heating sun water in a large bowl is a common Tokugawa practice. *Gyouzui* 行水 as open-air bathing or tub bathing fits the bill for saving energy and fulfilling Shinto purification rituals. Unpaved roads are natural air conditioners that are better than pebbled or asphalt paths, and wrapping *onjaku* 温石 (warm stones from a fire) in clothing is a neat body heater for cold winter nights. Craft guilds continually repair clothes, ceramics, metal pots, and umbrellas in order to lengthen their life.

By 1700, the Shogunate halts deforestation with the *Yamakawa Okite* 山川掟 whereby money and labour are invested into planting mountain trees. When Tokugawa children start reading elementary Chinese classics, they learn the following: “A mountain without trees is of little worth however high it is, so is a big man without wisdom” (Ishikawa 2000, ch.5).

As Ishikawa writes:

Japan in the Edo era had technologies to make it possible to mass-produce *nishiki-e* 錦絵 [“brocade picture”], plate prints in multicolor. *Nishiki-e* is one of the most original art forms created by the Japanese. *Nishiki-e* artwork was a creative commodity for the general public. It not only nurtured the Japanese people's sensitivity to art over the centuries, but also inspired French impressionists so much that its

influence is still evident in today's visual art of the world. It was rare in those days to have a product where so much value was added into one piece of paper that was being mass produced. However, because the whole production process required only simple materials—paper and board and painting tools—the energy consumption did not rise above the levels of solar energy obtained during the preceding few years. We call this ability to rapidly create great value while best meeting consumer needs with only limited resources, the “*Nishiki-e* Principle.” It is for certain this principle was the basis for leading a better-quality life while only using scarce solar energy resources. All *Nishiki-e* materials, except for the blades of the woodblock carving knives, were made from sustainable botanical resources. Other than the simple materials, only the detailed work of human hands is required. The Japanese paper used for *Nishiki-e* were made from young branches of paper mulberry matured in the preceding year or two at the most. Woodblocks were mainly made from cherry wood and craftsman fully utilized this resource, by using both sides of woodblock boards. Except in the case where one whole side was one color, one woodblock would be carved for several colors. It was typical to use only five woodblocks to print a *Nishiki-e* in ten colors. More interestingly, professional craftsmen were hired specifically to shave used woodblock boards flat so that they could be reused over and over. Since the technology of *Nishiki-e* had made it possible to print complex colors and figures easily, *Nishiki-e* became a popular local product of the Edo town, being also called “*azuma-Nishiki-e*” [吾妻錦絵] or simply, “*edo-e*.” [江戸絵]. As many *Nishiki-e* shops were built in several parts of Edo town in the early 19th century, the *Nishiki-e* price fell down to an affordable 16 or 32 mon [文], often found in children's pocket money. (“Mon” is a monetary unit of the Edo Period. Sixteen mon is about U.S.\$ 3-6.) Just like today's children collect their favorite character goods, it appears that their Japanese counterparts in the Edo era bought woodcut prints produced by their favorite artists such as Toyokuni [Utawaga Toyokuni 歌川豊国; 1769-1825] or Kunisada [Utawaga Kunisada 歌川国貞 1786–1865]] (popular *Nishiki-e* artists of the era). Those ordinary children who lived in the community flats along narrow streets were playing with picture cards created by artists who have become highly renowned and valued worldwide today. (Ishikawa 2000, ch.8)

Today, the legendary frugality of Tokugawa spawns the *mottainai* 勿体ない ecological movement of “waste not want not.” The origin of its eco-friendly battle cry shines way back on the Genpei War (*Genpei kassen* 源平合戦) (1180–1185) between the Taira (*Heike* 平家), and Minamoto 源 (*Genji* 源氏) clans during the late Heian (*Heian jidai* 平安時代) period, which results in the emergence of the Kamakura *bakufu* 鎌倉幕府 in 1192. Without an author or a definitive place of publication (*Shuppan chi fumei* 出版地不明 [sine loco]), the Waseda University Library 早稲田大学図書館 in Tokyo houses a spectacular copy of *Genpei Seisuiiki* 源平盛衰記 (*The Rise and Fall of The Genji and The Heike*) (circa 1247) in 48 volumes, where the likely first instance of “*mottainashi*” 勿體ナシ (勿體無) appears in volume 36 on page 53 of the manuscript. In the famous story of the driving-arc (*yumi-nagashi* 弓流し), the legendary commander Minamoto no Yoshitsune 源義経 (1159-89) arrives at the island of Yashima 屋島 where the Taira bait him to attack by mounting fans to the masts of their ships. Yoshitsune orders a Bowman to hit the fan at an incredible distance—a feat that impresses the Taira. A Taira warrior dances in mock of the improbable shot and shockingly is felled by yet another arrow. This prompts a frenzied full-scale assault on Yoshitsune's troops who quickly withdraw from the waterfront. Unfortunately, upon retreating, Yoshitsune drops his bow in the water and is nearly killed while returning to fetch it with his whip. His stunned retainers of Shinto and Buddhist virtues shout *mottainashi!* (what a waste), indicating that his spiritual life is worth much more than this simple material bow. Later, Yoshitsune explains that he wished that his enemies not recover such a weak bow or all his troops would lose face (McCullough 1988, 369-370).

So far, this essay focuses on the rosy side of ecological inventiveness. What goes wrong? There are a number of historical circumstances that prevent these innovations from continuing or divert their effectiveness. Famines, floods, typhoons, epidemics, crop failure, and swarms of locusts put a big dent in Tokugawa's ecological

movement. Between 1590 and 1867, there are over 2800 peasant uprisings (*hyakushō ikki* 百姓一揆), mostly in poorer areas. As to more affluent *bakufu* 幕府 domains, 146 revolts occur between 1590 and 1750, and 401 between 1751 and 1867. Abandoning the home domain, mass petitioning, and violent acts become common. Inflation and rising taxes are the main causes for the peasants' unrest (Hane 1992, 53-55). Conrad Totman explains that understanding ecology in Tokugawa is not so easy. At the end of Genroku 元禄 (1688-1704), forests are depleted along with gold and silver mining. The population doubles within a century with the opening up of affluent cities and towns (Totman 1993, 235). Famine and earthquakes are more regular as are typhoons and monsoon rains. Hence, policies are implemented to "maximize the existing resource base" as Totman states:

Seventeenth-century land clearance increased demand for fertilizer even as it destroyed green fertilizer sources. The rise of commercial cropping, notably cotton and tobacco, which consume soil nutrients voraciously, reinforced the trend. As fertilizer demand grew, its market worth rose and substitution became feasible, especially near cities and castle towns. Meanwhile, the manufacture of soybean products, sake, and vegetable oils was generating organic wastes such as seed hulls and pulp that had potential value as fertilizer, and in the later Tokugawa period, the sale and use of such industrial byproducts became well established. One of the most valued organic wastes was night soil, that is, human bodily waste (1993, 261).

In Kyūshū 九州, the third largest island of Japan, woodcutting villagers of centuries past begin to move to coal seams to burn ground coal for fuel. Potters and salt and sugar makers from the Nobi Plain (*Nōbi Heiya* 濃尾平野) westward also substitute coal for wood (Totman 1993, 271). By 1720, Ogyū Sorai influenced by Ito Jinsai's Song 宋朝 (*Song chao* 960–1279) Confucianism, advocates a return to studying classical China in its language, rituals and rites as a direct path to recovering "the Way" (Totman 1993, 285). As it was, *samurai* had indulged in the pleasures of the city and fallen victim to the avarice of a rising merchant class. Whereas the original intent of *sankin kotai* 参勤交代 (alternate attendance) was to discourage civil revolts, it now had the opposite effect. As Sorai relates, under the later *bakufu* 幕府 system (see Hall 1991, 160-226): "...the daimyō are completely powerless and their poverty is very real, [so] it is inevitable that some relief from their compulsory attendance in Edo should be granted" (quoted in Totman 1993, 287-288). If *samurai* abandoned their city complacency and returned to living in the countryside, then their control of rice crops would restore the respectful social order of peasantry and merchants alike in regard to proper *hōken jidai* 封建時代 (feudal period) relationships (Totman 1993, 286-290, Yamauchi 2014, 337-357). Unfortunately, fires, floods, famines and taxation distorted these positive efforts.

### **Watsuji Tetsurō: *Fūdo* 風土**

After a one-year sojourn in Europe (1927-1928), Watsuji Tetsurō, professor of ethics at Kyoto University who later teaches at Tokyo Imperial University, publishes a treatise in 1935 on climate, contrasting civilizational approaches between East Asian and Western culture:

My purpose in this study is to clarify the function of climate as a factor within the structure of human existence. So my problem is not that of the ordering of man's life by his natural environment. Natural environment is usually understood as an objective extension of "human climate" regarded as a concrete basis. But when we come to consider the relationship between this and human life, the latter is already objectified, with the result that we find ourselves examining the relation between object and object, and there is no link with subjective human existence. It is the latter that is my concern here, for it is essential to my position that the phenomena of climate are treated as expressions of subjective human existence and

not of natural environment. I should like at the outset to register my protest against this confusion. It was in the early summer of 1927 when I was reading Heidegger's *Sein und Zeit* in Berlin that I first came to reflect on the problem of climate. I found myself intrigued by the attempt to treat the structure of man's existence in terms of time but I found it hard to see why, when time had thus been made to play a part in the structure of subjective existence, at the same juncture space also was not postulated as part of the basic structure of existence. Indeed, it would be a mistake to allege that space is never taken into account in Heidegger's thinking, for *Lebendige Natur* was given fresh life by the German Romantics, yet even so it tended to be almost obscured in the face of the strong glare to which time was exposed... In the main, this work is based on notes for lectures given over the period September 1928 to March 1929. This series was given very soon after my return from my travels outside Japan with the result that, in that I had no leisure to reflect in detail on the problems of time and space in human existence, I took up for discussion only the consideration of climate (1961, v, vi).

Watsuji proceeds to explain Eastern civilization in light of Western container views of space. This is somewhat ironic *initially*, since Heidegger's position on non-Aristotelian time (reversibility of time) is quite close to the Buddhist monk Dōgen Zenji's 道元禪師 (1200-1253) *uji* 有時 ("being-time"; time is existence; existence is time) (see Heine 1985). And for Dōgen 道元禪師 (1200-1253), space (*koku* 虚空) is a form that time takes in the same way that springtime manifests itself through blossoming flowers. Space is a thing itself; all things are time: "Take a pinch of empty space" (*kokū wo sattoku shi* 虚空を撮得し); This is reminiscent of Yagyū Munenori 柳生宗矩 (1571–1646), sword master to Tokugawa, when he speaks of the Void in *The Book of Family Traditions and the Art of War* (*Heihōka densho* 兵法家伝書) (1982):

There is a distinction between false voidness [*koku* 虚空] and real voidness [*shinku* 真空]. False voidness is a simile for nothingness. Real voidness is genuine emptiness, which is the emptiness of mind [*shin* 心, heart-mind]. Although the mind is like empty space insofar as it is formless, the one mind is the master of the body, so the performance of all actions is in the mind. The movement and working of the mind is the doing of the mind. When the mind is inactive, it is void; when the void is active, it is mind. The void goes into motion, becoming mind and working in the hands and feet. Since you are to hit the adversary's hands holding the sword quickly, before they move, it is said that you should "hit the void."... Since the mind has no form or shape, it is basically invisible; but when it clings and lingers, the mind is visible as such in that condition. It is like raw silk: dye it red and it becomes red, dye it violet and it becomes violet. The human mind also manifests visibly when it is attracted and fixated by things. (Yagyū 2005, 142, 156)

In 1927, Heidegger moves away from the Western preoccupation with measurable space (Immanuel Kant). Heidegger retreats from (a) **being in time** as a spatial metaphor toward (b) **being and time** as occupying equal planes of existence to (c) **time and being** as the essence of the turn, and finally to (d) **time in being** as a full reversal. The latter is similar to East Asian philosophies of *Dao* 道 (time as *Dao* stands between moments) and Zen Buddhism 禪 (time is Zen's 'sudden' awakening) (Goulding 2005). Influenced by this, Watsuji makes a unique argument regarding space itself: "the space-and time-structure" of human existence is revealed as climate and history: the inseparability of time and space is the inseparability of history and climate:

I use our word *Fu-dō* [風土], which means literally, "Wind and Earth," as a general term for the natural environment of a given land, its climate, its weather, the geological and productive nature of the soil, its topographic and scenic features. The ancient term for this concept was *Sui-do* [水土], which might be literally translated as "Water and Earth." Behind these terms lies the ancient view of Nature as man's environment compounded of earth, water, fire, and wind. (Watsuji 1961, 1)

Brilliantly, Watsuji recognizes three different types of climate cultures: monsoon, desert and meadow. Japan is a monsoon culture:

Japan, with its distinctive rainy season (the “plum rains”) and its typhoons, is particularly humid; her first ancestors recognized this when they called it instinctively the “Land of Rich Reed Plains and Fresh Rice Ears”. However, this humidity is revealed also in Japan in the form of heavy snow falls. It is Japan's fate to suffer very facile and drastic seasonal variations. Hence the distinctive monsoon characteristics, passivity and resignation, can be expected to undergo further specific limitation in the case of Japan. (Watsuji 1961, 20)

While “desert” applies to Arabia, Africa and Mongolia, “meadow” applies to Western Europe:

The Japanese word makiba [牧場] is a translation of Wiese or meadow. But it is quite inappropriate. Maki [牧] is an enclosure for livestock; but Wiese is for the cultivation of grass fodder for livestock, and is, further, general grassland. But again, the Japanese word for grassland (sogen [草原]) does not have the intimate relation with livestock fodder that Wiese has. In fact, Japan has no term corresponding to the latter. So, translators of the late nineteenth century used the word makiba (with its livestock connotation) in the sense of sogen (grassland). Here I shall follow this now normal usage. The fact that there is no term in Japanese corresponding to the word Wiese indicates that there is nothing in Japan to correspond to Wiese. Japan's sogen has no utility value—it is, in fact, discarded land. However, Wiese, while in fact grassland (sogen), has a similar function to hatake [畑] in that while hatake produces food for human consumption, livestock fodder is grown on Wiese. Wiese is not tilled where hatake is; yet the two are of the same nature in that both provide a nutritional crop. There are both natural and artificial Wiese, but they can always be turned into hatake. The artificial Wiese corresponds to one phase in the normal rotation of crops of the hatake; it is the exact equivalent of the wheat hatake in the year when it is sown to clover. (Watsuji 1961, 59)

Watsuji goes on to say:

Drought in the summer; here we come face to face with “meadow”. There are no weed-grasses in Europe; this indicates, in other words, that summer is the dry season. Weed-grasses have no nutritional value for livestock but they grow, and spread very rapidly and can overrun and choke pasture grass. These weed-grasses are what the Japanese know as “summer grasses” and, as the term implies, the essential conditions for their growth are heat and humidity. In May they begin to sprout at roadsides, on embankments, in waste land and in dry river beds; then in July, nourished by June's “plum rains”, they grow to a height of several feet almost as you watch. These grasses are tough and obstinate, tough enough even to flourish on the parade ground. Whether the ground be cultivated, or even part of a residential area, if neglected for a year or two, this sort of weed-grass takes possession and turns the place into a complete jungle. But it is this combination of heat with moisture—the “plum rains” and the subsequent sunshine—that gives this weed-grass such tremendous vigor. However, Europe's dry summer fails to provide this moisture just when weed-grasses need it, so that they cannot sprout. (1961, 67)

In the long run, Watsuji makes a cosmological argument that owes much to Heidegger when he writes about the essence of the person in-between (*Being and Time's in-zwischenheit*):

Man does not reach constantly into the future within individual consciousness alone; rather, it is the betweenness that reaches into the future. Temporality of the individual consciousness is a mere abstraction

that is only rendered possible on the basis of historicity [*Geschichtlichkeit*] of betweenness. Third, transcendence also means standing out climatically. In other words, man-as-betweenness discovers itself in climate. From the standpoint of the individual, this becomes consciousness of the body, but in the context of the more concrete ground of human existence (*ningen sonzai* [人間存在]), it reveals itself in the forms of creating communities, and thus in the forms of constructing language, the forms of production, the styles of buildings, and so on. Transcendence, as the structure of human existence, must include all these aspects. (1961, 12)

## Conclusion

In retrospect, we might think of Watsuji's cosmological adaptation of space to Japanese human climate as a parallel to Ogyū Sorai's return to a *hōken* rectitude where right action helps restore healthy social relations and the environment to boot. Watsuji adapts his climate theory to Japanese aesthetics. Reading love poems from *Kojiki* 古事記 and *Nihon Shoki* 日本書紀 through to Tokugawa yields "...a calm love concealed behind a violence of passion, a love that is at once fighting yet selfless and acquiescent... Yet, at the same time these loves have a typhoon savagery and a fighting power of a kind that could exist neither in India nor in China." Watsuji continues that: "In the same way, the lovers' suicide, the favourite theme of Tokugawa literature, did not rest purely on a spiritual belief in the other world; rather, it displays the affirmation of love through a denial of life; the heart yearning for an eternity of love is crystalized in this momentary exaltation" (1961, 138-139). This 'typhoon savagery' and 'fighting power' exemplifies all of Tokugawa from *Chūshingura* to *ukiyo-e* to strategies of ecology. Together, these melding body phenomenologies remind us of the contemporary neo-Confucian philosopher Cheng Chung-ying's 成中英 *benti* 本體 (origin-substance as onto-cosmology) whereby originary human substance finds manifestation in the world as a whole (Goulding 2008b, 135-155). This itself is the resilience of long term Japanese culture: the ability to bounce back. Fittingly, Watsuji writes:

The problem of climate affords a pointer for any attempt to analyze the structure of human existence. The ontological comprehension of human existence is not to be attained by a mere transcendence which regards the structure as one of temporality, for this has to be transcendence in the sense of, first and above all, the discovery of the self in the other and the subsequent return to absolute negativity in the union of self and other. Therefore, the 'betweenness' of man and man has to be the *locus* for transcendence. That is to say, the betweenness as the basis for discovering the self and other must be originally the place that 'stands out' (*ex-sistere*). (1961, 12)

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# Yusuhara: Regional Autonomy, Revitalization, and Green Energy

Sachiyo Kanzaki

**Abstract.** In the mountainous regions of Japan, where depopulation threatens the survival of rural communities, the town of Yusuhara is famous for challenging this all-too-frequent narrative through its green energy policy. The town of Yusuhara, designated as an environmental model city by the central government, has a population of only 3,600 and its percentage of elderly residents (*kōreikaritsu*: percentage of people older than 65) is 40%. Although Yusuhara is relatively isolated from the main city of Kochi by a two-hour drive, about three hundred thousand people still visit this town every year. Many rural revitalization experts ask: is it possible to develop a town through green energy? In this paper, I will address how this small town is fostering community resilience through the use of green energy, and explore its vision for sustainability.

## Yusuhara

In the mountainous regions of Japan, where depopulation threatens the survival of rural communities, the town of Yusuhara in the Kochi Prefecture is famous for challenging this all-too-frequent narrative. As if the national hero of the Bukamatsu Period, Sakamoto Ryōma, imbued the air with his own determination and resourcefulness when he passed through on his way to Honshu (Iwata 2015),<sup>1</sup> this small municipality is a very ambitious one. It is also known for its innovative use of different sources of green energy, such as wind and solar power. 6,936 people from 235 public organizations and 332 private groups participated in renewable energy observation trips to this town between June 2013 and March 2017 (Yano 2014a). As for tourists, Yusuhara counts almost 0.3 million people yearly, and aims to increase this to 0.5 million (*ibid.*).

## The Eco-Town that Stopped Population Decrease

Like other rural communities, Yusuhara had suffered from population decline and its percentage of elderly residents, those older than 65, stands at a high 40% (Statistics Bureau 2017). However, it recently

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<sup>1</sup> Yusuhara Town promotes tourism in the town by using this historical fact.

succeeded in stopping population decrease during a time when other towns and cities in Kochi Prefecture continued to lose their population steadily. For the fiscal year 2014, Yusuhara only decreased by 1 person, thanks to the migration of 43 people to the town in addition to the increase of the number of students entering Yusuhara High School (Kochi Shinbun 2015). Indeed, Yusuhara has been very successful in increasing its younger population. All of this is, of course, not an accident, nor a near-stagnation situation. It is a significant turn of events. Since the town is also famous for its green energy, some are wondering whether it is possible to develop or revitalize a town with green energy. In the following text, the use of green energy in Yusuhara and the philosophy behind its success will be explored.

## Population Increase Policies

Yusuhara encourages people, particularly young families, to settle in town to increase its population. They offer free childcare with the possibility of longer daycare from 7:30 am to 6:30 pm, free school lunch, and no charge for medical expenses up to 15 years old. A temporary infant daycare services at the reasonable price of 1,000 yen a day and 500 yen for a half day is also available. Subsidies are provided for the purchase of uniforms, desks, and chairs for school children, as well as for transportation expenses. They also offer support for dorm life in amount of 1,500 yen per month as well as support for studying abroad.<sup>2</sup> Also, all residents can use the pool for free all year round (Yusuhara Town 2017a).

The town also offers construction and renovation subsidies to attract people to settle. Yusuhara offers a subsidy of up to two million yen for the construction of a house using local wood. A family under the age of forty can receive another one million yen in subsidies, and up to one million yen for a renovation project (ibid.). In addition to this, there are grants for introducing renewable energy sources to the house. For those who want to try Yusuhara before they migrate, some renovated houses can be rented for 10,000 to 15,000 yen per month (Yusuhara Town 2017b). In rural communities suffering from depopulation in Japan, poor housing is often an obstacle for people wanting to come and settle there. Yusuhara clearly understands this and is trying to resolve the problem. Also, the town will help new settlers to find a job by offering job placement services at the municipal bureau, free training courses for level 2 home helpers, and different kinds of financial support for projects related to creating businesses and human resources in the town (ibid.).

## Modern Sustainable Wooden Buildings

When visiting Yusuhara, people are surprised by their modern public buildings. Despite its distance from major cities, Yusuhara has an impressive municipal bureau, designed by famous architect Kengo Kuma and constructed in 2006 (Yusuhara Town 2017c). It is not only stylish, but also convenient: its front part can open widely so as to serve as a shelter base in case of disasters. There are also three other modern buildings designed by the same architect.<sup>3</sup> They are all of “modern” taste, inside and outside.

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<sup>2</sup> Studying in the United Kingdom or Australia for three weeks will cost only 70,000 yen.

<sup>3</sup> The building containing a hotel and a restaurant called *Kumo no ue no Hotel* constructed in 1994, a wooden bridge shaped art gallery called *Kumo no Ue no Gallery* constructed in 2010, and a community market and hotel named *Machi no eki Yusuhara* constructed in 2010.

People come to visit Yusuhara only to see those buildings. We could say that Yusuhara challenges the “rural, therefore good old” image of the town. In addition, their modern buildings are perceived as “Japanese modern” thanks to their use of wood, particularly Japanese cedar. One might wonder whether it is worth building such impressive buildings successively, but the municipality in fact has a very good budgetary structure. Every year, Yusuhara shows a surplus in its books.<sup>4</sup>

There are other buildings and constructions that attract people to Yusuhara, such as the Miyuki Bridge constructed in 2002 and the Yusuhara Bridge reconstructed in 2007. All the recently constructed modern buildings of this town, including those designed by Kengo Kuma, are made with wood produced in the town. As for the Miyuki Bridge, it was an old stone bridge before its reconstruction with wood in 2002, as was the case for the Yusuhara Bridge as well. The latter has been an important bridge for villagers and travellers for a long time. The concrete was replaced by wood in modern times; when it was time for reconstruction in 2006, they chose wood from the town to rebuild it (Yusuhara Town 2011).

The Regional Community Centre of Ochimen District, which was the former Ochimen Primary School’s gym, was also constructed in 2004 using 1,000 m<sup>3</sup> of locally produced wood. Even the pool, called *Kumo no ue no Pool*, constructed in 1998, uses wood produced in the town. Today, they are also making and replacing other smaller public constructions such as handrails and lampposts using wood (Yusuhara 2011).

Mountains cover 91% of the town, and therefore its major industry has been forestry. However, the Japanese forestry industry had been declining since the 1970s because of the import of cheaper foreign timber. Therefore, the use of the town’s wood is key to the survival of the town’s industry. In fact, Japanese forestry has been steadily recovering since 2000, the year that marked the lowest self-sufficiency rate of 18.9% (MAFF 2017a). In 2016, the Japanese wood self-sufficiency rate was 34.8% (MAFF 2017b). Therefore, the efforts of Yusuhara are reflected in the national tendency. In addition, wood building materials, having advantages over traditional building materials, have been recently reconsidered and labelled as sustainable and renewable by architects and builders.

## Designation as Environmental Model City in 2009

In 2009, the town of Yusuhara was designated as an environmental model city by the central government (Cabinet Secretariat 2009). If we look at the other places with this designation, apart from Shimokawacho in Hokkaido with a population of 3,379 (Statistics Bureau 2011), all are rather big cities such as Yokohama City, Chiyoda Ward, and Kyoto City. So, the environmental model cities are not necessarily small rural municipalities with natural resources, but rather cities where advances in green policies are made.

Yusuhara was chosen for its use of woody biomass as a means of reducing CO<sub>2</sub>, which was considered an advancement in green energy technology. The town opened a woody pellet factory (as a semi-public corporation) in 2008 in collaboration with Yazaki Corporation, a company producing biofuel heating and cooling systems. A woody pellet factory uses branches, tops, stumps, and other woody debris from

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<sup>4</sup> Yusuhara’s *Keizai shūshi hiritsu* (ratio of current expenses to current income) has been less than 80% and is one of the lowest in Kochi (Yusuhara Town, 2017d; Statistics Bureau, 2017). The reduction of administrative expenditure is pursued and the number of governmental employees has been reduced successively and resulted in one of the lowest Laspeyres indices in Kochi prefecture by far (Kochi Prefecture, 2017).

commercial operations. A pellet factory creates an employment opportunity, but it should also be viable, so the factory was designed to be operated by only one single employee if the pellet demand is low. Also, to cut the cost of transportation, the factory tries to find its market nearby (Asahi Shinbun 2008). Today, it provides pellets for the boilers used by municipal pools, municipal hospitals and nursing buildings, and targets to expand the market within Kochi Prefecture. As for the pellet ashes, Yusuhara uses them as a fertilizer and neutralizer in agricultural lands and forests (Yasui 2012).

In fact, as a landmark of an Eco-Model City, the municipal bureau building mentioned above does not have an air-conditioning system, even though the building houses banks, as well as the Japan Agricultural Cooperatives and Chamber of Commerce and Industry's offices. It is one of the rare municipal bureaus in Japan not to have one. The space between the roof and the ceiling is designed to let in fresh air from outside. During the winter, solar heat warms the circulating air. During summer, the heat pump water heater makes ice using surplus electricity at night. The ice is kept underground and the air cooled through the ice is circulated in the building during the day. Also, its roof is equipped with solar cells that produce 40% of the total energy needed for the building (Iwamoto 2009). The rest of the energy costs for the building are covered by the rent of its tenants. Therefore, the construction of a new town hall actually contributed to the reduction of maintenance costs.

## Innovative Ideas: Branding

To promote forestry, prior to the opening of the woody pellet factory in 2008, Yusuhara implemented forest development practices and streamlining operations that were certified in 2000 by the Forest Stewardship Council based in Germany, a first for the industry in Japan. Also, forestry agencies have advocated what is traditionally called *Shinrin-yoku* (forest bathing) as “forest therapy” and a practical application of new forest resources.

The Kubotani area was designated as the forest-therapy quarter and forest-therapy path by the Forest Therapy Steering Committee, composed of the Forestry Agency and the Japan Wellness Foundation, in 2007. In collaboration with Kochi University's medical school, Yusuhara's Municipal Hospital presented its therapy program and healthy meal program (Gibo 2010). The medically proven effects of the programs attract many visitors to the town.

Even before the designation of eco-town based on its woody biomass project, Yusuhara had already shown innovative ideas for the survival of its community. Yusuhara has a *tanada*, a rice terrace, described by famous writer Shiba Ryōtarō as “the agricultural pyramid of Japan” (Yusuhara n.d.). However, like other rice terraces situated in the mountainous regions of Japan, it had been threatened by land abandonment. In 1992, Yusuhara started what it calls the “*Tanada ōnā* (rice terrace ownership) system” for the first time in Japan (Toyota 2011). A more correct term, however, would be “tenure system”, as the participants in the ownership system, the owners (*ōnā*), are not owners, but tenants. By paying 40,010 yen for 100 m<sup>2</sup> a year, they rent the agricultural land, and cultivate it while receiving guidance from true landowners or local support groups. In Japan, it was generally prohibited by agricultural legislation to lease farm lands out to non-farmers until 2003, but with this new ownership system, non-farmers had the opportunity to access agricultural land. The *ōnā*, tenants, participate only in some special occasions throughout the year, like sowing, transplanting, weeding or harvesting the rice when paddy fields need manpower. All the work in between is carried out by either the landowners or the local support groups.

The *ōnā* receive the rice crop at the end of the year. It created an urban-rural coalition, where non-farmers, usually city dwellers, engage in farming activities, and thus contribute to the revitalization of the rural society and preservation of the traditional cultural landscape. This system became very popular in Japan and has spread throughout the country.

## Wind Power Station

In recent years, to promote forest management and introduce “new” renewable energy sources, the town used the revenue from the sale of wind power. They undertook a wind condition study in 1996, which showed that Mezurudaira on the crest of Shikoku Karst, 1,400 metres above the sea, was one of the best locations in Japan for wind power generation. They introduced two wind turbines from Denmark in December 1999. Yusuhara Wind Power Station generates 3 million kWh yearly, which supplies about 20% of the local electricity needs (Yano 2014b). Between 1999 and 2010, their maintenance fee was 16.2 million yen yearly, and they sold 35.6 million yen yearly; therefore, they earned 19.4 million yen yearly (Kochi Prefecture 2012a). It cost 450 million yen for the construction, and they received 123 million yen in subsidies by NEDO for the introduction of this new energy resource. Therefore, it actually cost 327 million yen for the construction.

Before the triple disaster of Fukushima, the government did not encourage wind power, so they established the buying price at about 10 yen per kW, compared to 48 yen for solar energy. Under this condition, the wind power station’s construction would be paid off in 20 years. After 2011, the government revised the pricing, and doubled the buying price to 22 yen per kW; therefore, the town’s revenue from its wind power station also doubled from 35.6 million yen to 60 million yen. With the profits from its wind power station, Yusuhara created an environmental fund<sup>5</sup> for the town.

## Distribution of Profits Among Citizens Through the Environmental Fund

Yusuhara’s environmental fund is used for distribution of profits among citizens in the green energy sector. By using revenue from the sale of wind power, the town provides a subsidy of 100,000 yen per hectare to forest owners who thin their land, helping the forest industry in the process. The town supports ¼ of the costs associated with the installation of pellet stoves and other appliances for the residents.

Also, a household can receive subsidies of 200,000 yen per kilowatt for the installation of solar panels, up to 4 kW. In addition to this, the central government also grants 140,000 yen. Therefore, the residents of Yusuhara can receive up to 940,000 yen in total to introduce solar panels. This is currently the highest grant in Japan.

Schools in Yusuhara all introduced renewable energy resources, such as solar panels and heating and cooling system using woody pellets, in addition to the use of a small hydro power station providing electricity to their junior high school.<sup>6</sup> The town introduced a small hydro power generator in Yusuhara River in March 2009. With a fall of six metres, it generates a maximum of 53 kW, and provides 90% of

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<sup>5</sup> Named *Kazazuruma kikin*, literally ‘pinwheel fund.’

<sup>6</sup> The Yusuhara Board of Education implemented eco-education into the curriculum of their junior high school (Yusuhara Board of Education 2011).

the electricity needed for Yusuhara junior high school during the daytime and lights up 82 street lamps at night (METI 2014). The yearly electricity surplus that is generated is sold to Shikoku Electric Power Company for 1.3 million yen (Nasu 2013). The construction of this hydropower system cost 201.6 million yen, and its maintenance fees cost 3.99 million yen yearly (Yusuhara 2011). Profits for the town are not high, but it helps the younger generations to understand electric power systems. The town's residents are proud of the fact that public commodities such as the LED street lamps are powered by electricity generated from their own Yusuhara River. By 2010, some 30% of Yusuhara's energy consumption was covered by its local renewable energy sources. Yusuhara further plans to construct small-scale hydro power stations and aims at achieving zero CO<sub>2</sub> emissions.

### **Involvement of citizens and the use of revenue from wind power generation**

After the COP3 in Kyoto in 1997 and the adoption of the Act on Promotion of Global Warming Countermeasures in 1998, many municipalities have undertaken the creation of a "New Energy Vision" (Baba et al 2001). In this context, Yusuhara created its own New Energy Vision in 1999. The town wanted to involve its people in the decision-making process. 15 inhabitants of different generations participated in creating the 5<sup>th</sup> Comprehensive Development Plan for Yusuhara, adopted in 2001 (MAFF 2013). In this plan, they established three main policy areas where the town should take action: environment (*kankyō*), health (*kenkō*), and education (*kyōiku*), which is referred to as "the 3 Ks" in Japanese. Related to this, the town encourages the introduction of new green energy resources. It clearly indicated in its plan its intention to use revenue obtained from wind power generation to promote green energy. This transparency motivated citizens to pursue the town's plan as well as facilitating further collaboration.

### **Revenue from green energy as a heritage of the Zero Public Imposition Plan during the Meiji era**

Yusuhara is now planning to construct a new wind power station. In the discussions surrounding this project, we can find some important factors to consider when trying to develop the town through green energy. To implement new wind turbines, new roads would be needed, as well as considerable investments for their construction. If the municipality put the construction of the power stations in the hands of other instances, it would not need to put much effort into their management and would only receive revenues from property taxes. However, the profit of the power stations would be zero, and the local allocation tax grants from the central government would decrease accordingly. Therefore, the most important thing is that the municipality builds and operates the power stations itself. This is different from fossil fuel or nuclear power stations, because the municipality would not have the choice to be the main actor.

Concretely, for the 3,300 million yen construction project, the town would receive a total of 150 million yen as property tax in 15 years. The profit of the power station is 240 million yen a year, which is more than the revenue from property tax in 15 years. Therefore, it is more profitable for the municipality to undertake the project by itself. However, the costs of construction are considerable for a



small municipality. This is why most municipalities don't usually take the initiative to build power stations (Kochi Prefecture 2012b).

In the past, Yusuhara had aimed to become “a town without tax revenue” for its residents when the new town system was implemented by the new Meiji government. First, they tried to realize this by using revenues from forestry, and later, entering the Showa era, with the revenues from three hydro power stations built in the town (Nasu 2013). Unfortunately, management of these three hydro power stations was transferred to the prefecture and to the Shikoku Power Supply Company<sup>7</sup> in 1936 because of wartime measures. Today, Yusuhara tries to introduce renewable power generation and a sense of community development via initiatives based on this zero public imposition philosophy (Okusa 2013).

In Yusuhara today, each of its six districts has a council consisting of a total of 56 settlement community groups (Cabinet Office 2016).<sup>8</sup> An annual meeting is organized to regroup the town governor, the chiefs of the six district councils, the representatives of the 56 settlement community groups and different local organizations, as well as national and prefectural employees. Considering the scale of the town, residents can actively participate in the decision-making process of Yusuhara (Cabinet Office 2016). In addition, in 2010, the municipal staff visited each household to survey the residents' needs and the result was reflected in their Town Comprehensive Promotion Plan adopted the following year (Yusuhara Town 2015).

## Long-Term Vision

In the case of Yusuhara, the main benefit of running the town with green energy lies in its actual use. It is important to determine the “policy fields” to use. Hydro energy and wind power energy stations do not create many long-term employment opportunities. They are renewable energy sources, and therefore create few employment opportunities after their construction. An electrical engineer is needed, but he or she does not need to be in town. That is why Yusuhara outsourced these positions outside of the town. The maintenance of the power board can be done in town, as well as the configuration of the solar panels, but again it does not create many employment opportunities.

Therefore, employment opportunities mostly result from job creation around the branding of green energy initiatives, with activities such as forestry, tourism, and forest therapy. As such, the town is always seeking new innovative ideas to promote the mountains, their own renewable resource. With this, Yusuhara is successful in attracting people looking to settle in the green environment and sustainable community it has transformed itself into. In order to successfully achieve sustainability, the town will need to continue to promote good ideas, deploy continuous efforts, and count on the local population's collaboration. This is the key to the present success of Yusuhara.

Now, the next step for Yusuhara will be to balance its now hourglass-shaped population structure. The residents tend to leave after high school graduation, only to come back many years later, leaving a gap in the “20 years old to middle-age” bracket of their community.

<sup>7</sup> Shikokuhaiden, which became today's Shikoku Electric Power Company in 1951.

<sup>8</sup> As of March 2014, 1) Shimagawa District: 13 settlements, 583 people; 2) Ochimen District: 7 settlements, 572 people; 3) Nishi district. 8 settlements, 624 people; 4) Higashi District: 15 settlements, 1,477 people; 5) Hatsuse District: 7 settlements, 142 people; and 6) Matsubara District: 6 settlements, 292 people (Cabinet Office 2016).

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# Green Space and Suburban Planning in Japan

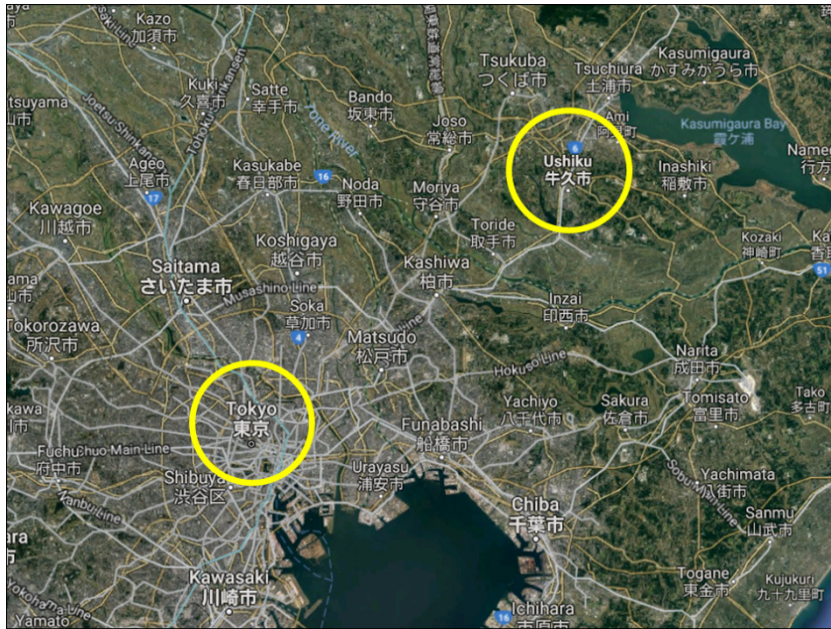
Tom Waldichuk

**Abstract.** The idea of green space in suburbs can take the form of green belts, municipal parks, planted trees, and depending upon the location, nearby farmland and natural vegetation. Preserving green space in suburbs is important for maintaining the quality of life of residents. The purpose of this paper is to examine historically how green space has been incorporated into planning Japanese suburbs. Through a review of literature and government websites, I examine green space in the context of suburban population growth, and an aging and declining population. I also include examples of green space management from Ushiku, a satellite city of Tokyo. My findings show that homes in many suburban developments from the 1970s, 80s and 90s lacked green space due to small lot sizes. Fragmented farmland within suburbs has played an important role as green space. The Productive Open Space Act encourages the continued farming of this land. Related to this, as the population of Japan decreases, farmland can expand into abandoned suburban areas, thus increasing the amount of green space. Ushiku City, while proposing to revitalize aging suburbs, has developed green roads connecting neighbourhoods and their green space. The principal conclusion is that farmland and natural vegetation function as green space in suburbs, and in the future more farmland—and green space—is likely to appear as suburbs contract.

## Introduction

Green space is important for maintaining the quality of life of residents in suburbs. In particular, it is important for maintaining and contributing to the health and culture of cities (MLITT 2004). There is a well-developed literature on the benefits of green space to city residents in general and suburban residents in particular (see Rupprecht 2017). More recently there has been concern about global warming and climate change, and the impacts on residential communities. The heat island effect, which is warming caused by heat radiating from built-over surfaces, has been an issue in Japanese cities (CABE Space 2003; MLITT 2016a). Thus, the function of green space providing shade has become important. Finally, green spaces function as places of evacuation in times of disaster (CABE Space 2003), in particular, when there are earthquakes, floods, or landslides. Thus, the management of green space has become a national policy issue in Japan (CABE Space 2003).

Most of this concern is focused on urban areas where a greater percentage of the landscape is built over. But suburban housing developments, which multiplied during the period of high economic growth, have also led to a decrease in green space. In the 1990s when the economic bubble burst, suburban growth started to level off, which one can argue has slowed the decline of green space.



**Figure 1.** Satellite image of Tokyo and general location of Ushiku City

Source: Google Maps

However, elderly people need green space to maintain their quality of life. The problem is trying to pay for those green space facilities. For those living in suburbs, where there is abundant greenery and a group of volunteer seniors willing to preserve and promote green space, there is a chance to maintain and promote green space. This is especially true where farmland near suburbs is preserved and where abandoned suburban homes in disrepair are torn down and replaced by green space.

Whether the amount of green space has increased or not depends on how one defines green space, which has changed over the years in Japan. At a large scale, one can define green space as green belts and forests, and at a smaller scale as household gardens. However, according to the City Green Space Act (Toshi Ryokuchi Ho), until recently, in principle, farmland was not considered green space (MLITT 2004). Rocks could be considered green space, as could golf courses and water bodies. Adjacent patches of farmland could also be considered green space. Thus, the City Green Space Act has defined green space rather rigidly; however, as I show in the paper, this is changing.

The purpose of this paper is to examine historically how green space has been incorporated into planning Japanese suburbs. The paper is based on a review of the literature and government websites. I examine three time periods while focusing on the Metropolitan Tokyo area at the large scale, and the dormitory community of Ushiku (Fig. 1), which is about 50 km northeast from the main Tokyo train station, at the small scale. In the first period, I talk about the history of the Green Belt around Tokyo, starting before World War II and continuing until the 1960s. Second, I examine green space policy in the 1970s, 1980s, and 1990s as suburbanization was reaching its maximum extent. I also give examples of green space management in Ushiku, a city with approximately 85,000 people. Finally, I talk about green space in the third period—the 21<sup>st</sup> century. I show that as the population ages and declines, suburban green space may actually increase through the activities of senior volunteers and the demolition of abandoned dilapidated homes, which can be replaced with green space.

Still, Japanese communities are lacking green space. Calculating the area of green space is location- and scale-dependent; however, on a per capita basis Tokyo has less green space than London, England: 6.1 square metres versus 26.9 square metres (CABE Space 2003, 16). Japan overall has 8.5 square metres per capita.

A declining economy has led to a reduction in funding for public projects, such as building or maintaining urban or suburban parks. Moreover, in terms of policy, the needs of a growing elderly population seem to outweigh the needs of maintaining green space.

## Period #1: Green space from before World War II until the 1960s

There were planners in Tokyo who admired the green belt around London, England, and were interested in attempting to build a similar belt around Tokyo (Morita et al. 2012). In 1939, the Tokyo green space plan was devised. In 1946, the first green belt was attempted in Tokyo (Watanabe et al. 2008), but it failed. In 1956, the green belt was attempted again as part of the First Capital Region Plan of 1958 (Morita et al. 2012). But the plan failed again (Sorensen 2000, 252) due to the opposition from landowners and municipalities (Nakabayashi 2006; Watanabe et al. 2008) that could profit from increasing urban development. In 1968, the Second Capital Region Plan was devised (Morita et al. 2012; Nakabayashi 2006). The proposed green belt of the First Capital Regional Plan changed to a “Suburban Development Area” (Morita et al. 2012). Threatened green space in this “Suburban Development Area” became “Suburban Green Space Preservation Areas” (Morita et al. 2012). Areas of “Suburban Green Space Preservation Areas” in need of preservation were designated as “Suburban Green Space Special Preservation Areas” (Morita et al. 2012). Green space was thus becoming more differentiated, while the unpopular idea of a green belt was being abandoned.

Around the same time, new legislation for green space was emerging (Table 1). In 1956, the Urban Parks Act (Act. No. 79) came into being (MLIT 2007a). Starting in 1966 Metropolitan Suburban Green Space Preservation areas (Shutoken Kinko Ryokuchi Hozen Kuiki) were devised (MLITT 2016b). Near Ushiku City, 452 ha of Ushiku Lake and adjoining areas were designated in 1969 (MLIT 2016c). This Suburban Green Space Preservation is mentioned in the 2011 Ushiku master plan (Ushiku Shi 2011). Also, natural areas in suburbs, including mountainous areas, were preserved for biodiversity (Ando 2006). Thus, although the green belt was not approved, several pieces of legislation were enacted that governed sections of green space in the same area of metropolitan Tokyo.

## Period #2: Green space from the 1970s to 1990s

This was the period of rapid suburban population growth. Homes in many suburban developments lacked green space due to small lot size (Sorensen 2001). Land was cleared of vegetation before development. In 1973, the Urban Green Space Act (Act No. 72) (City Planning Act n.d., 8), which provides for green space conservation zones (article 5 of the act) and special green space conservation zones (article 12 of the act), came into being. In 1977, authorities were beginning to develop master plans for green space (MLIT 2014).

Some fragmented farmland within urban and suburban areas became known as productive open space (*seisan ryokuchi*) in 1974 owing to the introduction of the Productive Green Space (or Open Space) Act (Act No. 68) (City Planning Act n.d.; Watanabe et al. 2008, 22; see also Fig. 2). This land is in city planning areas, more specifically urbanization promotion areas (UPA) (City Planning Act n.d., 8). This designation encourages farming to continue due to lower taxation. The goal is to preserve UPA farmland as long as farmers are willing to farm it



**Figure 2.** Productive green space (*seisan ryokuchi*) in Ushiku City.  
Source: author

(Watanabe et al. 2008, 27). Farmers have to agree to farm their land for 30 years to receive the lower farmland tax rate (Watanabe et al. 2008, 27; OECD 2008, 91). In 1992, the legislation was revised to limit the legislation to farmland that was 500 square metres or more (OECD 2008, 91).

Local governments really emphasized public involvement in the management of typical (formal) green space starting in the 1990s as part of the *machizukuri* movement (Sugita and Doi 2012, cited in Rupprecht 2017, 1). Green space became popular in the early 1990s. For example, in Ushiku City a Japan Agriculture co-op newspaper's headline from 1993 was "Guri-n Green." Also, in Ushiku there was a plan for preserving and enhancing green space—this was a 20-year plan called Green Harmony Ushiku (Ushiku Shi 1990a), which unfortunately did not come to fruition. Ironically, at the same time (1992) a large residential tract development was being built (Fig. 3), which involved removing much of the natural vegetation.



**Figure 3.** The future site of Ushiku Hokubu Danchi, residential tract development, 1992-3.

Source: author

In 1992, all municipalities had to come up with a master plan based on article 18-2 of the City Planning Law (Sorensen 2002, 302). As well, green space was protected in district plans (Ando 2006), which are plans for municipal neighbourhoods. These master plans were to give local governments more planning autonomy. The Basic Green Plan system for municipalities was established in 1994 (MLIT 2014) (Table 1). Thus, local governments were becoming more responsible for planning green space.

### Period #3: Green Space in the 21<sup>st</sup> Century

Suburban populations grew rapidly until the 1980s. But then the economic bubble burst in the 1990s, and municipalities had to deal with smaller budgets to manage green space. In 2003, a report in Tokyo proposed incorporating business-like management practices and other changes (CABE Space 2003). There was to be greater involvement of the community, especially volunteer groups, and there was to be better enforcement of bylaws. The goal was to create more green space in built-up areas (this was more of an issue in urban areas rather than suburbs.)

As indicated in Table 1, the Urban Green Space Act merged with the Urban Park Act in 2004 (MLIT 2014). In 2004, the Urban Park Act was revised to allow temporary green space on roofs or on unused private space (CABE Space 2003). Local governments were to be involved in organizing temporary green space contracts with property owners. Green space was to be protected and promoted at the same time. Buildings on large-scale sites were obliged to have green space (Ando 2006). The Urban Green Space Act also led to (and continues to

YEAR	ACT	INFORMATION SOURCE:
1956	Urban Parks Act, Act no. 79	MLIT (2007a)
1973	Urban Green Space (or Urban green space conservation) Act, (Act no. 72) N.B., MLITT does not include “conservation” in the title	MLIT (2007a) City Planning Act (n.d., p.8)
1976	Urban Parks Act revised	MLIT (2014)
1977	Outline for developing master plans for green space	MLIT (2014)
1994	Urban Green Space Act revised—basic plans for creating greenery in municipalities were initiated (Basic Green Plans)	MLIT (2014); Echizen Shi (n.d.)
1995	Urban Green Space Act revised—the beginning of civil green space & green space management functions	MLIT (2014)
2001	Urban Green Space Act revised—established “Management Agreement System” & “Greening Facility Development Plan Authorization System”	MLIT (2014)
2004	Revision of Urban Green Space Act (Act No. 72): - integration of the Urban Green Space Act & the Urban Park Act (protect green space & create urban parks) - new urban green space law - measures to protect green space in suburbs	Ando (2006); MLIT (2014)
2004	Act for the Conservation of Urban Green spaces revised (renamed Urban Green Space Act)	MLIT (2014)
2004	Urban Park Act revised (Opposed the development of city parks based on “Basic Plans for Greening” (plans for providing green space))	MLIT (2014)
2004	Landscape Act (Act No. 110) was enacted	MLIT (2014)

**Table 1.** Green Space Acts Concerning All of Japan

lead to) preserving important trees (MLITT 2007a). The Landscape Act of 2004 also has designated important trees. The definition of green space did not change after the amendment to the 2004 urban green space conservation act (*Toshi Ryokuchi Hozen Ho*, 2 jo (article)) (MLIT 2004, 3). But the Urban Green Space Conservation Act changed to the Urban Green Space Act (MLIT 2014).

The Urban Green Space Act currently involves central government level policies as well as prefectural and municipal level bylaws (MLITT 2017a). Under the auspices of the Japanese transportation ministry (Kokudo Kotsusho) (MLIT 2013), there is a suburban green space preservation plan (*kinko ryokuchi hozen keikaku*) for both the metropolitan Tokyo area and the Kinki area, the old capital preservation plan (*koto hozon keikaku*), and state-run park maintenance (*kokuei koen no seibi*).

According to MLIT (2013), green space is preserved under the Urban Green Space Act (*Toshi Ryokuchi Ho*) within the following areas: Special Green Space Preservation Areas (*Tokubetsu Ryokuchi Hozen Chiku*), Green



YEAR	ACT	INFORMATION SOURCE:
1968	2nd National Capital Region Plan	Morita et al. (2012)
1969	Metropolitan Suburban Green Space Preservation areas (Shutoken Kinko Ryokuchi Hozen Kuiki)	MLITT (2016c)

**Table 2.** Green Space Acts Concerning Metropolitan Tokyo

Space Preservation Areas (*Ryokuchi Hozen Chiiki*), Citizen Green Space (*Shimin Ryokuchi*), and areas covered by District Plans (*Chiiki Keikaku*), which are subject to green space preservation bylaws (*Ryokuchi Hozen Jorei*). There are other laws involved in green space preservation: Historical Natural Features Special Preservation Area (*Rekishiteki Fudo Tokubetsu Hozon Chiku*), Productive Green Space (*Seisan Ryokuchi Chiku*), tree preservation system (*Hozonju seido*), and local government regulations (*Jichitai Dokuji no jorei*).

### *Prefectural and Municipal Level Green Master Plans*

At the regional level, prefectures are supposed to have their own wide area green space plan (*ken koiki ryokuchi keikaku*) and municipalities are supposed to each have a green space basic plan (*Midori no kihon keikaku*) (MLITT 2017a). The larger scale green space prefectural plans are linked to the basic green plan (MLIT 2013 & 2017a). All of these plans are supposed to provide landscape preservation and promotion. At the local level, residents and non-profit organizations are supposed to support the various policies and become involved in managing green space (MLITT 2017a).

As of the end of fiscal year 2015, 23 prefectures had completed wide-area green plans, and eight prefectures were in the process of finishing them (MLITT 2017b). 19 plans have been made public. The oldest green plan is from 1992 in Miyagi Prefecture, whereas the green plan for Chiba, which is next to Ibaraki, was developed in 1997, and the one for Metro Tokyo was created in 2005. Interestingly, as mentioned above in Table 1, basic green plans were not enacted until 1994 (MLIT 2014). Thus, these prefectural plans preceded the municipal basic green space plans.

### *Basic Green Space Plan (Midori Kihon Keikaku)*

In 1994 the basic plan for green space was enacted (MLIT 2014) as article 4 of the Urban Green Space Act (Echizen Shi n.d.). The basic green space plan involves both preserving and creating green space (MLIT 2013). These basic plans for green space can involve green space protection regions, regions where green space is promoted (MLIT 2013 & 2017a), the use of district plans, and the creation of city parks (Ando 2006). Each municipality is responsible for creating a basic green plan (MLIT 2013, 2017a, 2017c, 2017d). They create policies based on local conditions (MLITT 2017d). For example, there is local green space policy for parks that is part of master plans (MLITT 2017e; 2017f). The creation of the plan involves incorporating the opinions of residents, which are recorded at hearings (MLITT 2017c). Public groups (*chiho kokyo dantai*) with a strong residential connection become involved in green space-related initiatives (MLITT 2017d). There is usually an official announcement of the plan. Larger scale green space plans (*ko iki ryokuchi keikaku*) are linked to the basic green plan (MLIT 2013 & 2017a). All of these plans are supposed to provide landscape preservation and promotion.

According to MLITT (2017d), the following items make up a green basic plan: urban park maintenance policy (*toshikoen seibi hoshin*), special green space preservation areas (*tokubetsu ryokuchi hozenchiku*), promotion of green space in select areas (*ryokka chiiki*), policies based on the urban planning system, adding greenery to public facilities, green space agreements (*ryokuchi kyotei*) with landowners, citizens participating in green space activities, and policies not dependent on the city planning system (*toshikeikaku seido ni yoranai shisaku*).

There is also mention of the expansion (increased number) of the basic green plans (*Midori no kihon keikaku* or *Midori no master plan*) that are undertaken by municipalities (MLITT 2017e). According to MLITT (2017d) at the end of fiscal 2015, 49.1% of municipalities had finished basic green plans—a total of 674 municipalities out of 1,374 (MLITT 2017d, 2017f). 14 municipalities were in the process of making plans. According to table 1 from the MLITT (2017d) document, in Ibaraki, out of 44 municipalities, 12, or 27.3%, had completed basic green plans, whereas 51 out of 57 municipalities in Tokyo-To (89.5%) had completed basic green plans.

### *Other Recent (2017) Changes to Green Space Preservation & Promotion*

There are some other changes in green space policy from 2013 to 2017, apparent from viewing the ministry of transportation documents.<sup>1</sup> The introduction of the 2017a document talks about depopulation and an “aging counterplan” while the 2013 document does not. Another 2017 MLITT document mentions that there are places with small per capita areas of park land (MLITT 2017e). This is partly due to the tendency for farmland to be cleared for residential development (and not left for green space.) Existing parks are aging (*rokyuka*), the charm of them is declining, and there are requests for more park space (MLITT 2017e). On the other hand, the purpose of vacant land (*akichi*) is changing (MLITT 2017e). Suitable city farmland is treated as green space (MLITT 2017g), whereas in the early part of the 21<sup>st</sup> century (MLITT 2004) farmland was not considered as part of the definition of green space by the transportation ministry. Six laws have changed, including the urban green space law (MLITT 2017f). Green space is now known as “open space” (MLITT 2017g). In specific terms, the MLITT (2017a) document mentions the preservation of forests (*jurin*), unlike the 2013 document, which mentions just trees (*ju*). MLITT (2017a) also mentions green space preservation according to scenic areas (*fuchi chiku seido*) unlike in MLIT (2013).

The changes to the green space law appear to be focused on declining finances and labour to manage green space, as mentioned previously, and almost 15 years ago, by CABA Space (2003). Local groups are limited by finances and human resources (MLITT 2017e), such that groups cannot properly maintain green space or update facilities. Also, there seems to be more involvement of the private sector in park management, e.g., extending leases to manage business facilities in parks from 10 to 20 years (MLITT 2017e; 2017f). This may lead to more urban development of green space, e.g., there is a 2016 Japanese cabinet decision regarding the possibility of establishing nursery schools on city park land (MLITT 2017e; 2017f). There is also the relaxation of the building to land area ratio (*kenpeiritsu*) for facilities being constructed on green space (MLITT 2017e; 2017f). Private business people are recruited in an open competition to manage revenue-generation facilities, e.g., cafes or restaurants (MLITT 2017e; 2017f). In general, private business people will collectively assist with park renewal (MLITT 2017e; 2017f).

There is government assistance for managing green space. There are capital loans (*shikin kashitsuke*) and subsidies (*hojo*) for the maintenance of open space (*hiroba*) (MLITT 2017e; 2017f). There is also mention of facility maintenance subsidies (MLITT 2017e).

The government is allowing the preservation of urban farmland. There is a 2016 Japanese cabinet decision regarding the guarantee of the existence of city farmland (MLITT 2017e; 2017f). The requirements for productive green space (*seisan ryokuchi*) can be lowered by a municipality to 300 square metres from the normal

<sup>1</sup> I reviewed the MLIT 2013 document with several 2017 MLITT documents.

500 square metres (MLITT 2017e; 2017f). It is also possible to establish a vegetable market or a farm restaurant on *seisan ryokuchi* (MLITT 2017e; 2017f). A rural residential land-use category has also been created for *seisan ryokuchi*. There is also a policy of inserting (*kumikomi*) farmland as green space.

There is an increased dependence on citizen involvement in green space management through *machizukuri* (MLITT 2017f). At the same time, there is less involvement from the prefecture. The establishment of a citizen's green space (*shimin ryokuchi*) management plan is authorized by the head of the municipality, whereas in the past it was authorized by the prefectural governor (MLITT 2017e; 2017f). Managers have tried to capitalize on individual people's energy to promote the maintenance and preservation of green open space in order to realize what roughly translates as "lush and aesthetically pleasing *machizukuri*" (MLITT 2017e; 2017f). Between 2017 and 2021, it is predicted that there will be about 100 cases of using citizens to revitalize parks (in 2017, there were five.) Also, over the same 2017 to 2021 period, it is predicted that there will be 70 instances where a private core group maintains citizens' (*shimin*) green space (there were 5 cases in 2017). As well, companies involved in *machizukuri* can be designated to manage green space (MLITT 2017e; 2017f). Committees (*kyogikai*) have been established to deal with the revitalization of parks (MLITT 2017e; 2017f).

### *Ushiku City, Ibaraki Pref. Case Study Example*

In the early 1990s (about 1992) site-level green space requirements for housing lots was described in a diagram on p.5 in a *machizukuri* bylaw pamphlet, produced by Ushiku City Midori Ka (1990b). This site level plan has been more or less reproduced in 2017 on the Ushiku City green section website ([www.city.ushiku.lg.jp/page/page000428.html](http://www.city.ushiku.lg.jp/page/page000428.html)).

But Ushiku does not have a basic plan for green space. In the 2011 Ushiku master plan there is much reference to green space. On p.40 of the plan, for example, the plan mentions that there is a guarantee of green space in the sphere of daily existence. Furthermore, on the same page of the plan green space-related objectives are laid out: e.g., residents help to maintain small local parks and green areas, and *satoyama* and *yatsuda* landscapes are preserved and maintained.

### *Aging Suburbs, Declining Populations, and the Growing Importance of Informal Green Space*

In recent years, as mentioned above, suburbs have been aging, and residents have been aging in place. The population has been declining in urban areas (MLIT 2007b). The Japanese population started to decline in about 2005. In the context of declining populations, a lack of green space, and reduced municipal revenues, Rupprecht (2017) has explored the idea of informal green space for Japanese cities. He states that some cities' populations may decrease by 10% or more, but they are still lacking green space. There is also a declining budget due to less tax revenue. Municipalities cannot afford to create new parks. But less land is needed to house people. Could informal green space, e.g., vacant lots with vegetation or grass growing up through sidewalks, supplement formal green space such as parks in shrinking cities?

Rupprecht (2017) studied four shrinking cities: Sapporo, Nagano, Kyoto, and Kitakyushu. In an online survey he found that recreation and urban agriculture are preferred types of informal green space. In my questionnaire study of landscape preference on the edge of Ushiku (Waldichuk 1995), I found that people were not interested in untamed nature or green space as a place to live—Arne Kalland (2002) calls this nature in the raw. Rather, respondents were interested in human-modified green space, which Kalland calls cooked nature.

Now the focus is on making cities more compact as the population shrinks—this involves a reorganization of urban space (MLIT 2007b). Hirosaki in Aomori, for example, is a city that is being transformed into a compact city. What will happen to green space in a compact city?

Probably green space will expand: There will be more garden plots, more informal green space, e.g., fallow. If cities are left as is, much abandoned land can be made into green space, similar to cities around Detroit, Michigan, which have been depopulating.

### *Large Scale Changes in Green Space*

Yokohari and Bolthouse (2011) argue that due to the declining population in suburban areas, there will be more vacant lots, enabling more farmland, and community gardens and thus more green space. Also, wooded areas in the suburbs around Tokyo have been, and will continue to be, restored. Most of the people involved in this work are retired baby boomers. Historically, agricultural land was much closer to the urban settlements of Tokyo (Edo). At the same time Morita et al. (2012) argue that it is time again to try to implement a new green belt around Tokyo since farmland will likely expand as cities contract.

### *Small-Scale Changes in the Ushiku Case Study Example*

In our case study example of Ushiku, the 2010 population of people 75 and over was 6, 129 (population data source Rupprecht 2017, 2), whereas in 2040 it is estimated grow to 14,967. In Ushiku the city is proposing to revitalize aging suburbs. It wants to develop green roads connecting neighbourhoods, and Ushiku Lake shore (Ushiku Master Plan 2011, p.32). Eight circular areas have been created around Ushiku, each of which is centred around an elementary school. This green road network is highlighted in the 2011 master plan. One of the first areas to be revitalized is the main road running east of the Ushiku railway station. This is known as Keiyaki Dori, and involves lining the road with keiyaki trees. This is part of the *machizukuri* effort at city hall and involves much public participation, including citizen and expert participation on a committee for the city-wide project (Ushiku Shi 2011 & 2012; Pers. Comm., Ushiku City planning section).

## **Summary & Conclusion**

A large-scale green belt was attempted twice after World War II and each time the plan failed, as there was opposing to preserving so much green space, because it was on land that was in demand for urban development. Farmland, such as productive green space and natural vegetation, functions as green space in suburbs. There will be an increase of informal green space as populations decline and suburbs contract. There is a growing importance of informal green space, which is cheaper to maintain than formal green space, e.g., in urban parks. Finally, more green space is needed to protect an aging population living in a hotter Japan. The preservation and promotion of green space remains a national policy issue.

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# Japanese Smart Communities as Industrial Policy

Andrew DeWit

**Abstract.** This paper outlines two dueling narratives on Japan’s post 3.11<sup>1</sup> energy and environmental policy. One narrative champions community power and maintains that Japan is a laggard on renewables due to central-government reluctance. By contrast, the other narrative is technocratic, and describes a country forging ahead with a nationwide deployment of smart communities and smart energy systems. The paper asks which narrative is based on greater evidence, and finds the latter to be more credible. We also show that Japan’s technocratic policymaking aims to cope with the fact that Japan confronts the developed world’s most bracing combination of dependence on energy imports, rapid ageing and depopulation, climate-change hazards, comparative economic decline, fiscal crisis, and other stressors. All of these challenges are addressed by its well-financed and very ambitious “Society 5.0” industrial policy. This paper argues that one of the key pillars of Japan’s Society 5.0 is smart communities, as these are the locus for coping with energy, ageing, disaster threats and related societal problems. Smart communities are also where energy, spatial, and other planning intersect. The paper also demonstrates that Japan’s technocratic industrial policy displays a striking level of coordination across critical infrastructure networks, policy domains, agencies, business and civil society, and even multipurpose dam systems.

## Introduction

Many academic and activist observers of Japan believe the country’s energy-environmental policy is dominated by top-down, siloed governance and rent-seeking bureaucrats, who squander scarce public resources on porkbarrel projects. They either ignore or deride smart communities as unrealistic or corporate-dominated, and assert that Japanese policymakers are generally averse to renewable energy (ISEP 2017, 12; Green Watch 2016; Oshima and Takahashi 2016, 34; Takao 2016). This paper refers to them as “populists,” not in a pejorative sense, but because their vision of aggressive environmental action is rooted in popular movements. They also argue that Japan has poor targets and performance on cutting greenhouse gas emissions, minimal carbon pricing and trading, and lacks an aggressive approach to replacing nuclear and fossil fuels with renewable energy.

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<sup>1</sup> “3.11” refers to the natural and nuclear disaster that followed the massive earthquake and tsunami on March 11, 2011.

This paper does not disagree with *all* of these criticisms, not least because no country on Earth is doing an adequate job of confronting the enormity of climate change. But I do assert the need to re-examine Japan in light of the full range of evidence rather than the items critics, especially the populists, tend to centre on. One example of this evidence is the industrial policy mechanisms outlined by scholars such as Carin Holroyd in her *Green Japan* (Holroyd 2018).

Below, I outline these narratives as stories, rather than exhaustively detail the populist critique and then provide extensive detail concerning what the technocrats are doing on integrated planning, fiscal, and regulatory reforms. It is more apt to compress them into stories due to space restrictions and because the narratives are told by two waves of policy entrepreneurs. The first wave, which includes former Democratic Party of Japan (DPJ) Prime Minister Kan Naoto, continue to argue that “Japan is a laggard.” The second wave is the “technocratic resilience” school. They built the smart community, national resilience, and Society 5.0 programmes and continue to elaborate them.

Figure 1 lists the main themes of these narratives. In the face of climate change the populists champion mitigation, particularly by renewables (especially solar power<sup>2</sup>). The populists are also resolutely anti-nuclear. By contrast, the technocrats lead with adaptation and look to a broad portfolio of decarbonizing energy inputs (including nuclear), tools for efficiency and conservation, and synergies from broad collaboration. Second, the populists focus their analyses on subsidy mechanisms, especially the Feed-in Tariff, whereas the technocrats incorporate such mechanisms into a larger, integrated industrial policy. In terms of agency, the populists generally distrust the state and thus look to NGOs, local governments, and small business. By contrast, the technocrats include NGOs, local governments and business in a larger “whole of government” or indeed “whole of nation” approach. And last, the populists look to “community power” initiatives as the spatial locus for lead the “energy shift,” while the technocrats centre on smart communities as the locus of a larger, more inclusive transition that encompasses transport, communications, water systems and other critical infrastructures (DeWit 2018).

It does not seem inapt to suggest that the populists’ approach is a species of the “folk politics” described by progressive intellectuals Nick Srnicek and Alex Williams:

[F]olk politics privileges the local as the site of authenticity (as in the 100-miles diet or local currencies); habitually chooses the small over the large (as in the veneration of small-scale communities or local businesses); favours projects that are un-scalable beyond a small community (for instance, general assemblies and direct democracy); and often rejects the project of hegemony, valuing withdrawal or exit rather than building a broad counter-hegemony. Likewise, folk politics prefers that actions be taken by participants themselves – in its emphasis on direct action, for example – and sees decision-making as something to be carried out by each individual rather than by any representative. The problems of scale

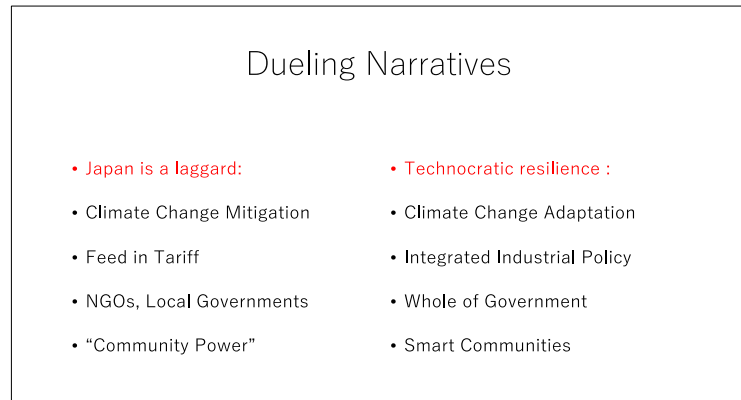


Figure 1. Japan’s Dueling Narratives on Energy-Environmental Policy

<sup>2</sup> Some authoritative visions for Japan, built with Japanese collaboration, insist solar energy could compose over 85% of all energy by 2050. On this, see The Solutions Project (2017), whose main scientific advisors are Stanford University’s Mark Jacobson and others (Hanley, 2018).



and extension are either ignored or smoothed over in folk-political thinking” (Srnicek and Williams 2015, 31).

The technocrats, by contrast, are rooted in established institutions and material infrastructures. They seek to build on these, which necessarily limits their capacity propose and undertake radical, transformative change. Their openness to compromise is surely a handicap in the face of a phenomenon as dynamic as climate change, whose acceleration has helped engender a new geologic era. Scientific evidence strongly indicates the global climate system has transitioned from the relatively placid Holocene era to an increasingly uncertain Anthropocene (Hamilton, 2017). This change poses worsening hazards for human communities, their critical infrastructure, agriculture, and other crucial elements of the built and natural environments.

The key question is which approach - populist or technocratic - has led to more fruitful results.

## The Populists: Japan is a Laggard

The first wave of policy entrepreneurs was in power when 3.11 occurred. Some of these policy entrepreneurs, such as former DPJ PM Kan Naoto, had regarded nuclear power as an important means of mitigation. But 3.11 saw them do an about-face and become core elements of a powerful anti-nuclear lobby that pressed for an aggressive drive towards renewable energy. The populists continue to argue that the adoption of a robust feed in tariff, which pays a premium price for solar, wind and other renewables, will generate an energy revolution. They highlight German, Danish and other successes, and imply that this price mechanism (along with carbon pricing) could and should be the main driver in displacing nuclear as well as coal and other fossil fuels from the power mix. They declare that rolling out renewable energy, especially through community-led initiative, will both mitigate climate change and bolster civil society. Their narrative’s focus is thus climate change and dependent local communities. They believe distributed, renewable energy can help resolve climate change and re-energize local community.

In general, the populist model of governance is a particular vision of Germany. In Germany, they see a country with ambitious plans for renewables, denuclearization, and emissions reductions, all fostered by such policies as the feed-in tariff. Their rhetoric clearly indicates that they want Japan to be more like this idealization of Germany, in mitigation policy as well as a “bottom up” activist civil society. They also distrust Japan’s central state, which they see as top-down and sectionalist. They view the central government’s fiscal initiatives as inherently wasteful and its regulatory reforms as largely biased towards the status quo. They therefore look to local governments and NGOs as the ideal locus of governance. The case studies they privilege include Iida City’s *Ohisama* mechanism for fostering community renewables. They display little interest in critical infrastructure and smart communities.<sup>3</sup>

Thrown out of policymaking by the 2012 return of the Liberal Democratic Party (LDP), under PM Abe Shinzo, these actors insist that renewable energy is being sidelined. They deride Japan’s current energy policy as being focused on nuclear restarts rather than renewables. Their claim was disseminated internationally by

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<sup>3</sup> For example, on May 14 of 2016, Japan’s Institute for Sustainable Energy Policies (ISEP) and 74 other green organizations released their first “Green Watch Community Power Environmental White Paper.” Their document’s 128 pages completely ignore the role that policy integration plays in fostering such technology as microgrids and smart communities. Instead, it depicts a top-down (*tatewari gyousei*) sectionalist state that favors big business (Green Watch 2016, 63-4) at the expense of the citizens, the latter allegedly being excluded from policymaking (Green Watch 2016, 63-67).



**Figure 2.** Japan is Not Germany  
 Source: author

such organizations as the international environmental NGO German Watch, in its Climate Change Performance Index 2017. German Watch ranked Japan’s climate performance as 60th, just above Saudi Arabia (German Watch 2016).<sup>4</sup>

After 3.11, the community-power advocates soon became stymied by inconvenient truths. The abrupt shut-down of all nuclear plant coupled with the world’s most generous subsidies for renewable power (especially solar panels) led to an expensive boom in solar but minimal investment in wind, hydro and other renewables. And in place of nuclear, fossil-fuel generation (coal, natural gas and oil) surged. The populist emphasis on the German model generally overlooked the fact, as outlined in Figure 2, that Japan is an archipelago with no international power and gas networks through which to balance intermittent wind and solar. Their focus on the seismic risk to nuclear also came at the expense of a more comprehensive framing of geologic and climate



**Figure 3.** People Power Projects in Japan

<sup>4</sup> Based on interviews with the populists, German Watch represented Japan’s current energy policy as a story of nuclear restarts rather than renewables

hazards. They therefore overlooked the opportunity to pursue mitigation by leading with adaptation, a sharp contrast to what the technocrats began doing.

Focused on expanding the role of renewables, the populists' analyses also generally downplayed (or simply ignored) the fact that, unlike Germany, Japan's population is shrinking and ageing faster than anywhere else in the world. Japan's demographic shifts are particularly striking outside of Tokyo and in areas that have been hit by disasters. Yet these demographic and spatial factors are especially important in an isolated archipelago that cannot import and export power to balance intermittent renewables. Moreover, building an energy shift - including new heat and power generation, transmission and distribution, and storage capacity - is an enormous undertaking anywhere. But it is especially challenging when there is no clear idea of how many customers, and what kind of industry, will be in a given city or town a decade hence. That uncertainty is yet another reason it is imperative to craft energy policy in tandem with spatial planning, disaster planning and other policies. It is not enough to adopt very high feed-in tariffs and other subsidies and then rely on price signals to accomplish the transition.

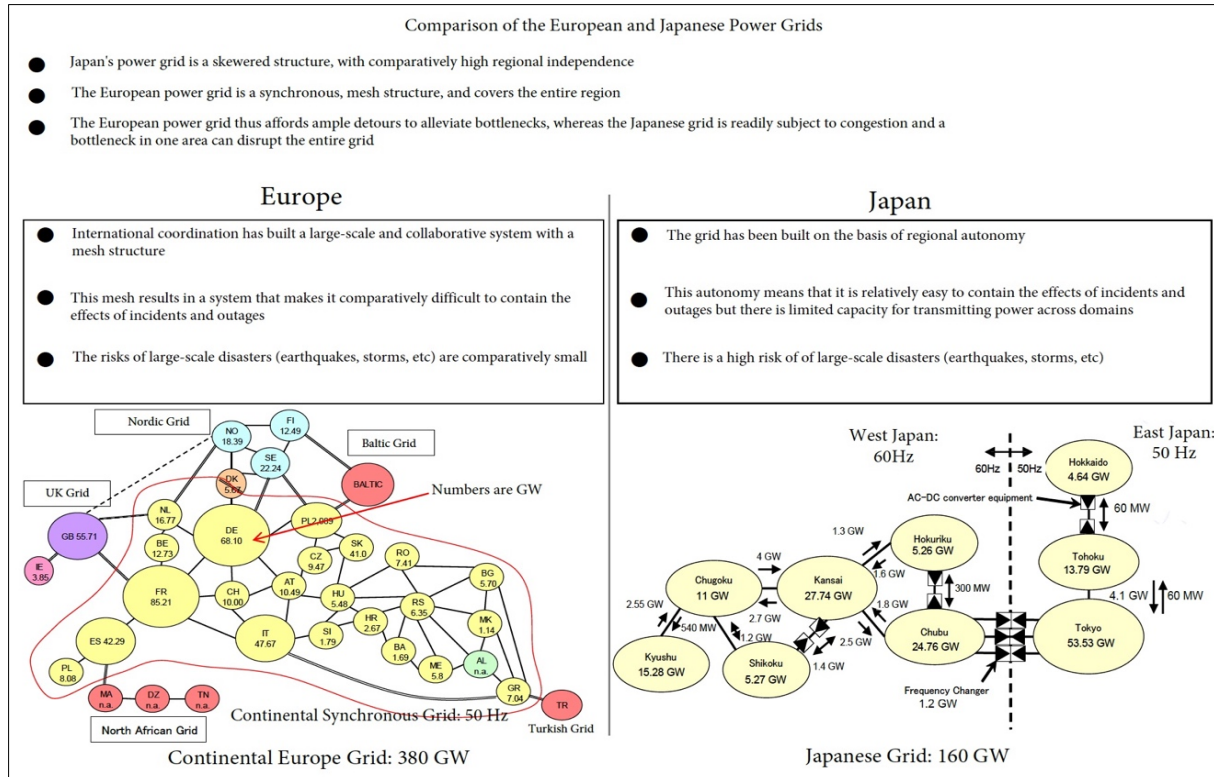
The populists' reliance on community power also seems to have been inadequate, as indicated by the evidence adduced in Figure 3. The Figure displays the total capacity of Japan's people-power projects identified through a survey undertaken by Japanese environmental NGO Kikonet (Kikonet 2017). Kikonet is a core actor in the populist network, resolutely anti-nuclear and anti-coal. So it is all the more instructive that Kikonet's own survey reveals how limited has been the impact of community groups. If one includes projects undertaken before 3.11, community power has led to over 1000 projects nationwide. But its annual increase in initiatives peaked in 2014 at 214 projects, falling back to 52 in 2016. Most of the projects are solar or wind, meaning that most of the total capacity of just under 90,000 kW (less than 1/10<sup>th</sup> of a single nuclear reactor). And worse yet, the power actually generated by these intermittent projects is only 12% (solar) or 20% (wind) of their total capacity.<sup>5</sup>

It would appear that in consequence of their idealization of foreign, especially German models, the populists lack a credible industrial policy. Their work lacks a serious analysis of Japan's powerful "Not in My Backyard" (NIMBY) problem, which blocks onshore wind, geothermal, hydro, and even local solar projects. Relying on an idealized concept of individual rationality, they assert that local ownership of renewable projects is the solution to NIMBY. But they conveniently ignore the myriad cases where public projects have been opposed.<sup>6</sup> It is very unlikely that people-power will engender a green revolution in Japan, given the scale of the challenge in changing a modern industrial economy's energy system. An energy transition certainly requires a lot more than the solar panels and windmills that civil-society (even together with business) can put in place. At least in Japan, civil society lacks organizational coherence, energy literacy and financial resources to lead an energy revolution. It is not even able to establish a Green Party. That should be obvious, but a lot of Japanese activists and academics have a powerful commitment to community-based energy revolution. It is not even able to establish a Green Party. That should be obvious, but a lot of Japanese activists and academics have a powerful commitment to community-based energy.

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<sup>5</sup> The IEA undertakes comparative studies on average generation capacity factors (meaning the percentage of energy output versus rated capacity). Its survey of output between 2008-2012 indicates that Japan's aggregate Figure for both solar and wind is 15 percent, far less than the 27 percent recorded for the United States, the 26 percent seen in Canada, and the 18 percent Figure for China (IEA, 2015).

<sup>6</sup> Indeed, when the robust feed in tariff was introduced in 2011-12, Japan's "Wild Bird Society" (<https://www.wbsj.org>) and others mobilized to stop the spread of wind power. They succeeded in convincing the Ministry of the Environment to adopt even more stringent environmental assessments for wind power than for coal (Looop Way, 2017).



**Figure 4.** Europe and Japan's Power Grids

Source: METI, 2018

## Technocratic Resilience

The competing “technocratic resilience” narrative is expressed in hundreds of reports on energy, disaster, spatial and other planning. But it is conveniently distilled in a book edited by Kashiwagi Takao, titled “The Super Smart Infrastructure Revolution” (Kashiwagi 2016). Kashiwagi is Director of the Advanced Energy Centre at the Tokyo Institute of Technology and a key policy entrepreneur in Japanese energy, spatial planning and other domains. The Kashiwagi book includes contributions by LDP Secretary General Nikai Toshihiro, several central agencies, and the business sector. It describes an ambitious agenda on smart communities, distributed energy and the critical infrastructure for a low-carbon society. Kashiwagi has been advocating smart communities and smart energy for years, telling the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) in 2010 that they needed to shift the focus of public works from roads and bridges to smart energy networks. Kashiwagi’s chaired many of the committees and other initiatives that have designed Japan’s energy networks and the subsidies that finance them. Kashiwagi has also compiled over a dozen volumes on this paradigm, including the 2012 “Smart Energy Revolution” book with Softbank CEO Son Masayoshi and Masuda Hiroya. The latter is former Governor of Iwate Prefecture and former minister of General Affairs. Like Kashiwagi, Masuda is a key policy entrepreneur on demography and compact spatial planning, and their intersection with smart energy.<sup>7</sup>

<sup>7</sup> Indeed, as Governor of Iwate, Masuda oversaw the installation of 43 wind turbines in Kamaishi City, and hence learned of the need for large-scale system and policy integration in order to cope with intermittent renewables (Masuda,

“Technocratic resilience” does not ignore the need to mitigate. Kashiwagi and his collaborators routinely emphasize decarbonization. But the technocratic paradigm centres on adaptation to climate change as well as a range of other hazards. Its scientific assessment of climate risks, particularly hydrologic hazards, is more up to date than the IPCC’s rather optimistic projections. It asserts that building hard and soft resilience in the face of these hazards fosters public goods and positive externalities. These public goods include enhanced domestic disaster resilience, increased energy autonomy, revived local economies, and the potential to expand smart city infrastructure exports.

Interestingly, like the populists, the technocratic model of governance also looks to Germany. But the technocrats see German local government and their public corporations, or *stadtwerke*, as the proper locus for bolstering local resilience. It also emphasizes a “whole of government” approach, one that builds on horizontal collaboration across ministries as well as with business, academe and civil society. It accepts the feed-in tariff and other policy supports, particularly as means to foster local revitalization via redistributing income from urban centres to rural areas. The technocrats’ smart community projects include heat and power microgrids, renewable inputs, storage, and plenty of other disaster-resilient critical infrastructure. They also include municipal power projects and ambitious energy-environmental plans.

Figure 4 compares the European and Japanese power grids, to further illustrate how different Japan is as well as highlight the structures that concern the technocrats. The Figure shows that Germany is part of a larger EU system that is both synchronous (ie, the same 50 Hz electrical frequency across the system) and has twice the power flows of the Japanese (Germany and France together equal Japan). The Figure shows there is ample scope for power trading across countries, allowing intermittent renewable generation (eg, solar and wind) to be balanced with hydro and other baseload power (meaning generation that is available 24/7).

I noted earlier that Japan is an energy archipelago. The Figure shows that it is not only isolated but still quite balkanized internally. Japan has no truly national power grid structure, as it is separated in spatial and frequency terms. West Japan runs on 60 Hz and East Japan is 50 Hz. That problem cannot be solved by simply building more transformers and transmission links, which are quite expensive, require several years of planning and construction, and routinely confront NIMBY opposition. Added to these factors, Japan’s demographic, disaster and other risks undermine the economics of building a large, networked synchronous grid as in Europe or even the less integrated North American network.

At the same time, Japan’s roughly JPY 700 trillion worth of roads, waterworks, and other infrastructures of the built environment generally exceed what it needs in the face of ageing and depopulation (OECD 2016). Lower population densities and per-capita incomes erode the fiscal capacity to afford the per-hectare costs of maintaining and replacing infrastructure networks. These kinds of variables have to be included in any analysis of the energy economy, because the structure of the built environment is a major determinant of per-capita energy demand. Moreover, the built environment’s elements can be drawn on as new sources of energy generation and storage, something the technocrats are doing for example with water networks.

It is also important to keep in mind that Japan’s rising per-capita infrastructure maintenance costs come in a general context of rising resource costs as well as increasing burdens for healthcare, pensions, food, and the ravages of climate damage. Worse yet, all of these factors exacerbate one another. For example, an adversely changing climate accelerates the wear and tear on the built environment, adds to the medical burdens of ageing, and increases the cost of agriculture.

To cope with these challenges simultaneously, the Japanese emphasize integrated planning for the community, including local heat and power networks. The expansion and integration of these projects are accelerated by the coordination of energy policy, spatial planning and disaster planning, ICT-IoT investment, harvesting of heat from sewers, and bolstering dam networks. Japanese policymakers seek to in order to

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2011).

maximize the productivity of extant assets, cope with the daunting crisis of scarce human resources, raise energy self sufficiency (from a perilously low 8%), monitor accelerating disaster risks, shrink the spatial and carbon footprint of communities, and enhance the country's export opportunities. The multiplicity of interlinked imperatives facilitates broad, pragmatic collaboration.

In contrast to China as well as the EU countries and North America, Japan has limited prospects for large investment in macro grids. A declining and aging population, coupled with several other factors (such as Japan's comparative isolation), means that ordinary market incentives are weakened. As we have seen, future energy demand is difficult to assess (even as negawatts and other "energy services" rather than simply megawatts and Btu's). Nor can excess intermittent power be shipped, for example, to Scandinavian dams for temporary storage.

The technocratic response to this nexus of challenges has been to diffuse smart and clean energy by integrating it with spatial planning, disaster planning, the diffusion of ICT-IoT, and other related areas. This integration multiplies the co-benefits of action, clarifies demand profiles, and integrates other critical infrastructures (eg, the 470,000 km sewerages that have huge energy and disaster resilience potential).

## Smart Communities

Let us turn to the smart communities that are the focus of technocratic policymaking. Figure 5, taken from a Ministry of Economy, Trade and Industry (METI) publication, portrays how smart communities grow in the midst of a typical Japanese city. Roughly 70% of Japan is mountainous, with half the population and three-quarters of the assets concentrated into the 10% of land that is coastal flood plains. Hence it is appropriate that the city is on a coastal flood plain, with mountains in behind. Japan has some of the world's worst seismic and hydrologic hazards, so many of this typical city's schools, welfare facilities, municipal offices and other buildings are designated as disaster shelters. This disaster designation makes the community facilities ideal anchor points for the diffusion of smart energy systems that maximize the deployment of renewable energy.

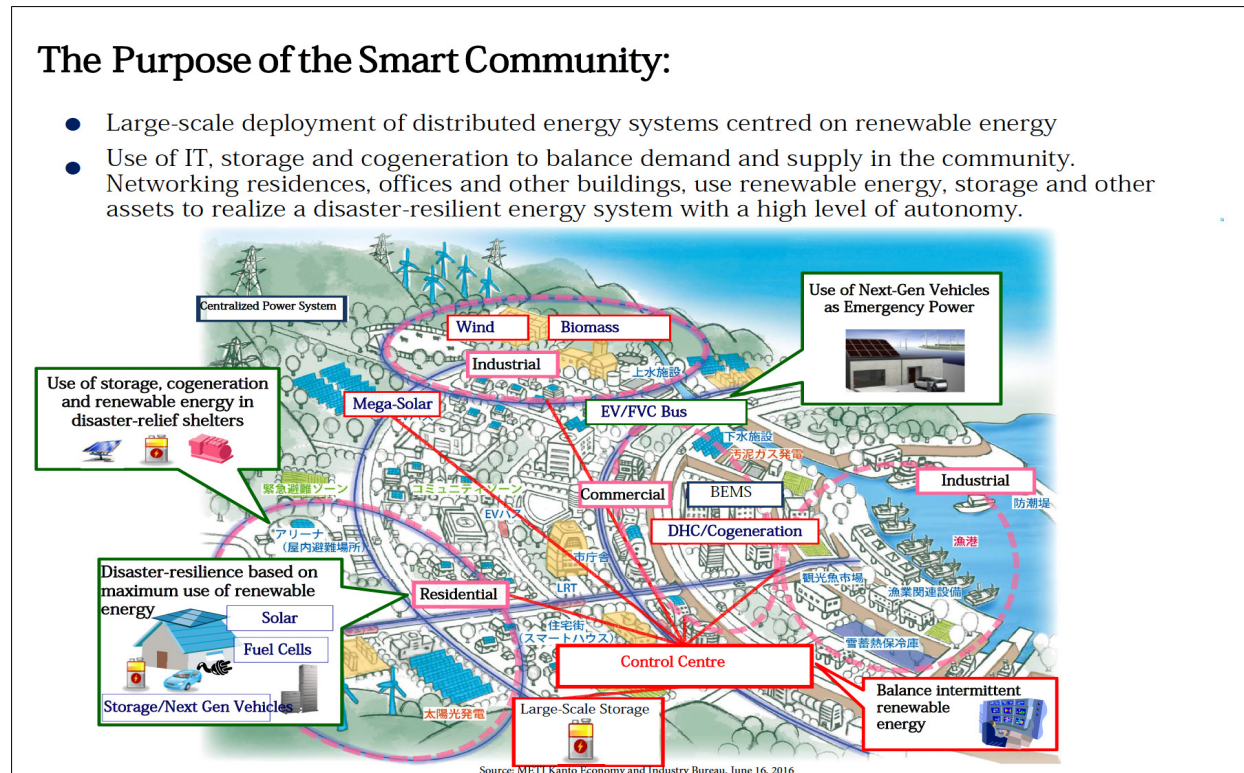
The METI Figure makes it clear that deploying smart microgrids and renewable energy is a primary purpose of the smart community. The rings in the Figure demarcate areas where power and heat networks maximize the effective use of distributed energy resources such as solar, wind, biomass, and battery storage.

In other words, within the overall urban landscape (or in rural areas), the smart community can be a cluster of residences, public facilities, factories,<sup>8</sup> commercial buildings, or indeed a mix of these. The key element is a sufficient density of demand, within the community, for smart energy and disaster-resilience. In other words, the Japanese smart community is a spatially-defined locus wherein disaster-resilience, energy efficiency and the exploitation of renewable energy endowments are fostered by smart-energy systems.

These systems are networks. They include power microgrids, district heating and cooling networks, and home/building/factory/community/mansion energy management systems (HEMS, BEMS, FEMS, CEMS, MEMS). The networks also incorporate advanced energy storage, LED lighting, waste-heat recovery, and other infrastructure. All of these components represent the ongoing convergence of energy, new materials, ICT-IoT,

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<sup>8</sup> One example is the Toyota F-Grid project, outlined in a January 31, 2018 video (in English): <https://www.youtube.com/watch?v=KjnAargowNE>



**Figure 5.** Japanese Smart Communities

Source: METI, 2016.

and AI robotics. Japanese policymakers use smart communities to increase disaster resilience, economic revitalization, energy security, socioeconomic equity, and related public goods (Kashiwagi 2016).

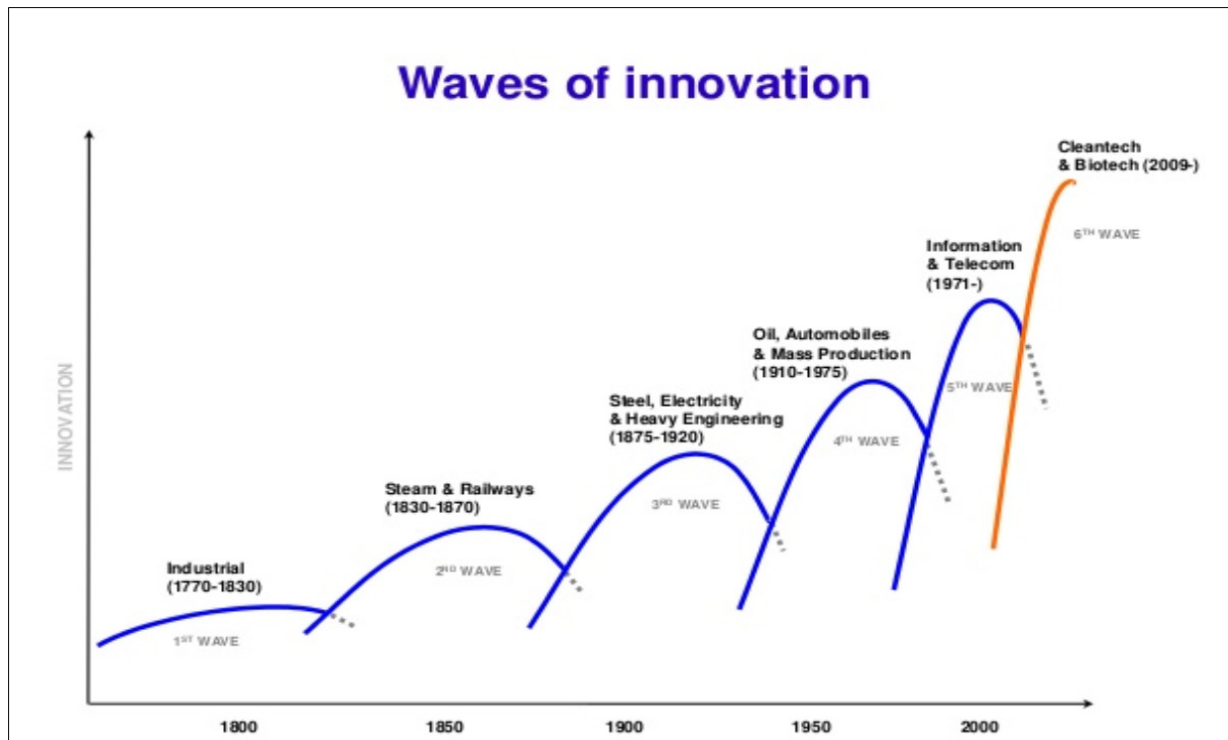
The integration of these discrete smart-community districts is how Japanese policymakers envision building the overall smart city (Murakami 2017).

Smart communities are not trendy regional revitalization. They are written into Japan's Society 5.0 industrial policy, its 2016 "Energy Innovation Strategy," and other core policies (Kashiwagi 2016; METI 2016). Smart communities also figure prominently in Japan's disaster resilience and spatial planning (EcoNet Tokyo 62 2016, 13).

Japan's smart-community industrial policy aims to reshape the energy economy and its critical infrastructures. The policy includes reducing reliance on the conventional power grid and other sprawling and vulnerable critical infrastructure.

As we have seen, Japan's populists often deride integrated technocratic industrial policy as top-down, porkbarrel politics and uninterested in renewable energy. But the fiscal, administrative and other evidence indicates that Japanese governance is quite responsive and collaborative. Polling and other data described below will show there are good grounds to conclude that the Japanese public, local governments and other stakeholders both powerfully support the technocratic model and have prominent roles in it.

Japan's technocratic approach centres on new networks. Figure 6 illustrates why networks are critical to modern industrial policy. Smart networks are – as networks - comparable to the roads and conventional power grids that were core networks in the Fordist economy as well as the railroads that were fundamental to globalizing commodity trade during the steam-based economy. Nicholas Stern, the leading economist on



**Figure 6.** Networks in in Economic History

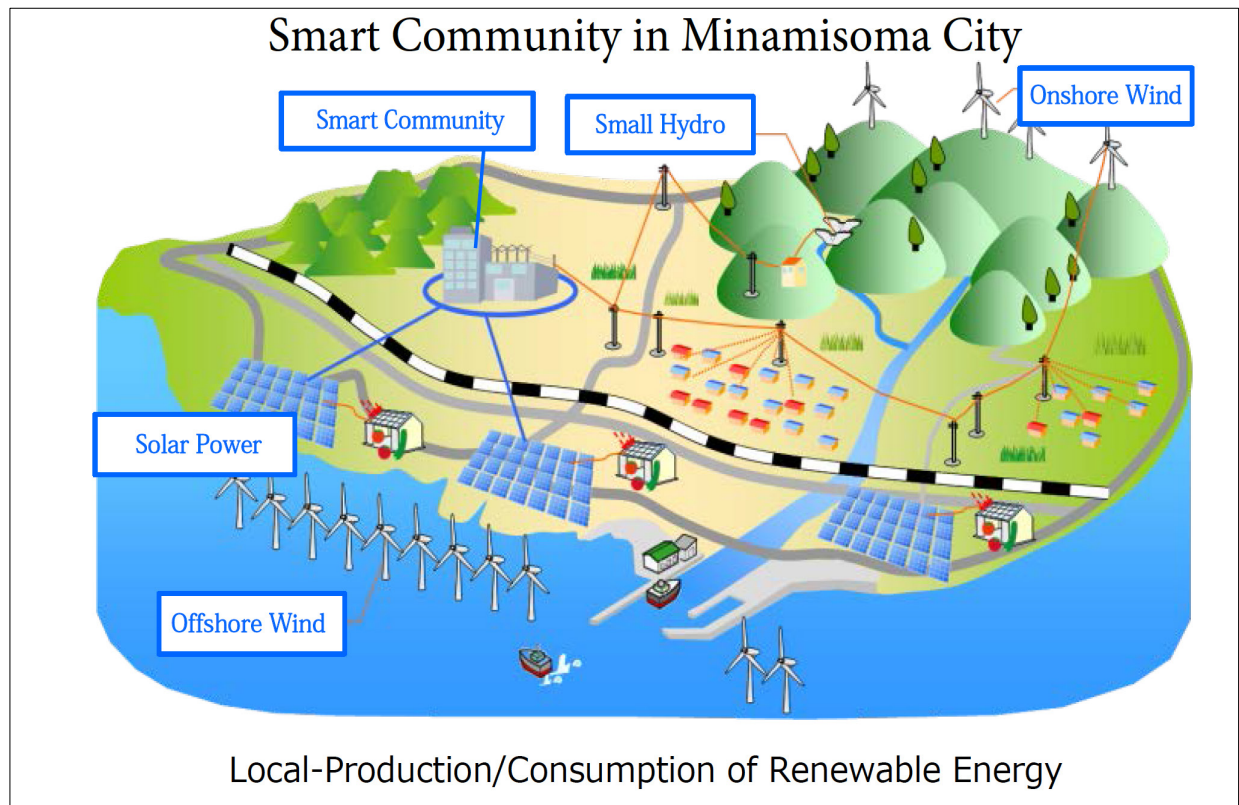
Source: Stern, 2015b

climate change and energy, highlights the role of networks during past and present waves of innovation. He argues in his 2015 book *Why Are We Waiting? The Logic, Urgency, and Promise of Tackling Climate Change* that:

[e]conomic history tells us that networks, be they power grids or railways, played a central role in past economic transformations: grids enabled great surges of creativity and innovation and led to opportunity and growth across the economy... More effective temporal and spatial management of the energy system, for instance with smart technologies or increased flexibility of the energy markets, could aid in the management of low-carbon generation, reduce the need for extra infrastructure, and unlock the potential for renewable energy to meet both base and peak demand for energy (Stern 2015a, 48-9).

Building the transformative networks outlined by Stern is a massive undertaking. Japanese policymakers were, in fact, quick to use 3.11 to accelerate the deployment of energy management systems, microgrids, and other networks. For example, the Ministry of Internal Affairs and Communications (MIC) undertook 290 smart network projects in 67 local communities (and community alliances) in the disaster-stricken Tohoku region between 2011 and 2017 (MIC 2018). The MIC has also undertaken these projects throughout Japan, and in collaboration with other agencies (as part of Society 5.0) is rolling out the 5<sup>th</sup> generation communications networks that are essential for handling the massive flows of data from real-time monitoring and control of multiple parameters associated with mitigation and adaptation. MIC's comparative surveys of Japanese competitiveness in smart energy and smart communities suggest that the Japanese have managed to hold a significant share in a rapidly expanding global race. The most recent MIC (2018) data rank Japan second (with a comprehensive score of 57.1 in 2016) overall in Internet of Things (IoT) and Information and Communications (ICT) markets globally, behind the front-rank US (67.7) and ahead of the Chinese (55.8). The Germans, meanwhile are ranked fifth (47.9).





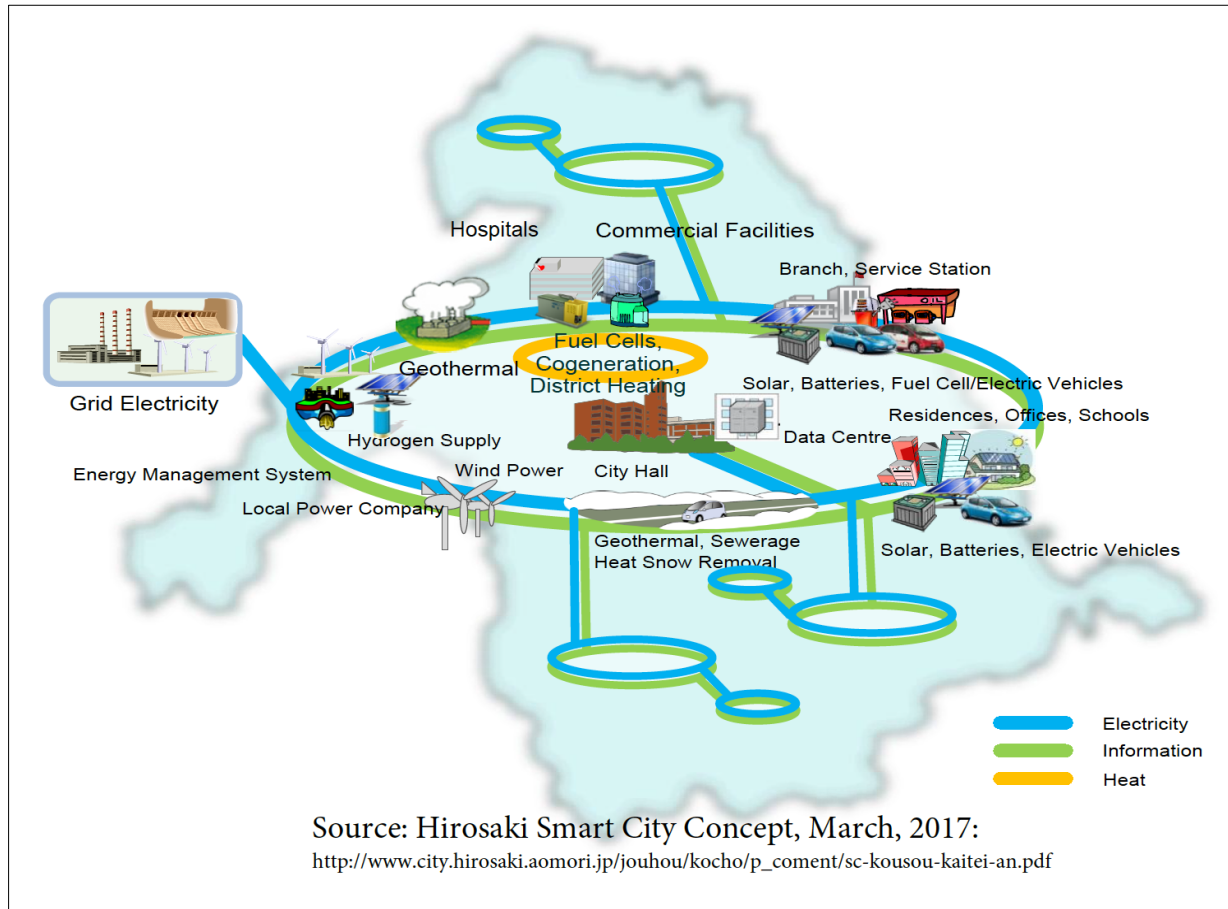
**Figure 7.** Minamisoma's Smart Community Plan  
 Source: Adapted from Minamisoma City (nd).

## Japanese Examples of Smart Communities and Policy Collaboration

These collaborative investments are bearing significant fruit, in Tohoku and nationwide. One example of a Japanese smart community initiative is seen in Minamisoma City (pop 63,000), whose project is portrayed in Figure 7. The city is very close to Fukushima, so emphasizes renewable energy and efficiency (along with electric vehicles and other smart-energy projects). The city started from 4% renewable in its power mix in 2011. It aims for 65% by 2020, with a longer-term goal of 140% by 2050. I chose Minamisoma deliberately, because it *is* in the disaster-stricken Tohoku region. The point is to show that the region is not at all being overlooked in what is a collaborative and nationwide rollout of smart communities. One might just as readily have chosen other examples from Tohoku, including the very advanced smart community/smart city projects underway in Higashi Matsushima City, Aizuwakamatsu City, Kamaishi City and many others.

Japanese policymakers are not only determined to use smart communities to maximize the diffusion of renewable energy and efficiency; they also integrate them with policies that encourage densification. This policy integration is evident in Aomori Prefecture's Hirosaki City. Figure 8 portrays the community energy system (a multi-role smart network) at the core of the city's Smart City Vision. The system is to link up localized heat, power and information networks as well as an array of decarbonizing inputs.

Phase 1 of Hirosaki City's project ran between FY 2013 to 2017 and centred on the deployment of extant technologies and disaster resilience. The city installed LED lighting, some solar, energy management networks,



**Figure 8.** Hirosaki City's Smart City Vision 2017  
 Source: Hirosaki City 2017

advanced waste treatment, and other technologies. But in 2017, Hirosaki's smart city plan was 4 years old. It required updating because of massive and rapid technological changes.

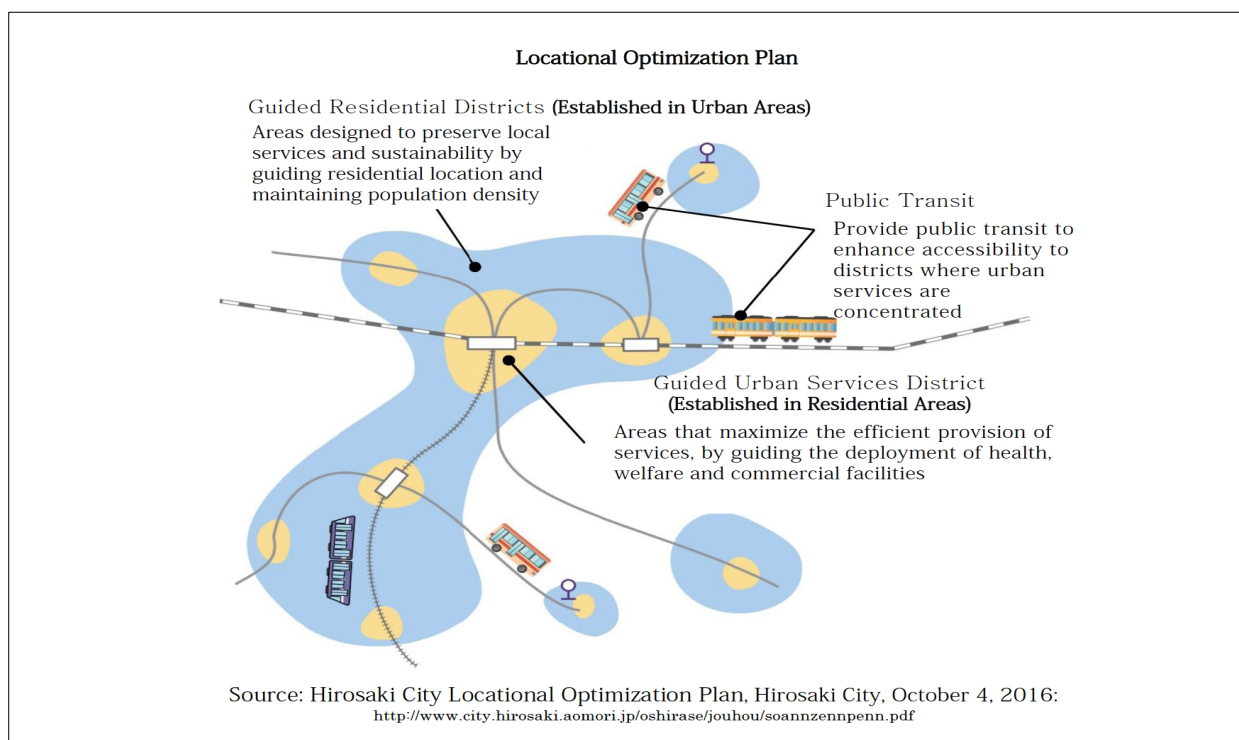
Phase 2 of the smart city plan is to deploy the "community energy system" to link these projects. Hirosaki's community energy system is thus key to further reducing energy consumption, meaning both thermal and electricity. It will also help cut reliance on electricity and fuels imported into the city. The incentives are huge: in 2010 JPY 36.3 billion yen flowed out of the city to regional utilities and other suppliers of energy and fuels. By way of comparison, the city's total revenues in FY 2013 were JPY 85 billion yen, of which local taxes totaled JPY 20 billion and national subsidies amounted to JPY 37 billion.

Similar to other cases, Hirosaki City's smart city plan includes creating a local power firm to institutionalize cutting this outward flow of monies and keep it in the community. The local power firm uses the smart networks and distributed energy as the basis for a business (Hirosaki City 2017).

Hirosaki is not a story of a local government acting in the face of central-agency opposition. Rather, central government agencies extend fiscal, administrative and regulatory support for Hirosaki City's ambition, just as they do in all the other smart community initiatives. This fiscal and other support for local-community-led power and thermal initiatives is characteristic of the long-term, collaborative planning that has evolved in post 3.11 Japan.

Figure 9 displays Hirosaki City's spatial planning, or the "Locational Optimization Plan." This plan is explicitly integrated into the city's smart city plan. As in virtually all Japanese smart community projects, policy-

integration between energy and spatial planning has led to robust, collaborative, well-funded programmes to foster densification. The policy integration centres on coping with depopulation and ageing in the context of accelerating climate change and other hazards. These Locational Optimization Plans are already guiding the relocation and densification of hospitals, schools, elderly care, and other public services. Density increases the cost-benefit performance of smart energy networks and inputs at the same time as it reduces energy use. For example, densification reduces the need for motorized (especially single-car) transport in favour of public transit, cycling, and walking. The reduced spatial footprint of the community also cuts the energy used to move water around. It also reduces the per-capita costs of maintaining roads and other critical infrastructure. This integration of spatial planning with energy has accelerated over the past three years, with the number of cities adopting spatial plans rising from 62 in December of 2014 to 384 in December of 2017. The initiatives have linked most of the central agencies together, in the Compact-City Design Assistance Team, enhancing the effectiveness of planning and spending through reducing overlap and other sources of administrative inefficiency (MLIT, nd).<sup>9</sup>



**Figure 9.** Hirosaki City Locational Optimization Plan

Source: Hirosaki City 2017

<sup>9</sup> The MLIT-led Compact-City Design Assistance Team (CCDAT) was developed in March of 2015 under the auspices of the Comprehensive Strategy for Regional Development, which itself was given Cabinet assent on December 27, 2014. The CCDAT is centred on the MLIT, but also includes representation from the Cabinet Secretariat, the Reconstruction Agency, MIC, MOF, The Finance Agency, MEXT, MHWL, MAFF, METI, and MOE. This broad representation is deliberate because designing the compact city includes addressing disaster resilience, regional cooperation, urban farming, education, health and welfare, urban revitalization, local transport, revising local facilities, residential areas, and schools. The CCDAT's role is to deliberate with the specific local government concerning such matters as issues relating to the relocation of local facilities. The CCDAT then integrates how to relate policies (eg, energy, transport, disaster resilience) into an overall package of institutional reforms and fiscal measures to achieve greater densities in tandem with better livability.

Smart communities and national resilience are also powerfully supported outside the technocratic planners. All levels of government and the general public appear more supportive of adaptation than mitigation.

For example, a March 2014 Japanese METI survey of smart communities showed that 82.2% of surveyed local governments listed resilience against disasters as their top priority for undertaking a smart community project (Ogura 2014).

Moreover, Japan's most recent annual and authoritative "Environmental Consciousness Survey," showed that the country's strongest level of consensus for any initiatives related to energy and the environment was the 77.8% support for using public funds to build resilience in the face of climate change (NIES 2016, 20).

Another example of this support for resilience is seen in Table 1. The table reproduces the most recent results of Tokyo Metropolitan Government's (TMG) annual survey of 3000 residents concerning the priorities they wish TMG to pursue. The results indicate that disaster risk reduction (DRR) was ranked #1 from 2012 to 2014, then dipped to #4 in 2015, but rose again to 2<sup>nd</sup> place in 2016. In 2017, it returned to the top, just above public safety (ie, policing etc). Environmental measures (Enviro) routinely score far lower, being 7<sup>th</sup> in 2017 (chosen by 23.2% of respondents as a priority).

Rank	2012	2013	2014	2015	2016	2017
1st	DRR (54.9)	DRR (52.7)	DRR (49.4)	Aging (49.8)	Aging (49.8)	DRR (49.4)
2nd	PS (47.5)	PS (48.1)	PS (47.7)	PS (48.7)	DRR (48.6)	PS (48.2)
3rd	Aging (43.6)	Aging (42.2)	Aging (46.5)	Med. (41.9)	PS (48.1)	Aging (46.7)
4th	Med. (41.5)	Med. (38.0)	Med. (43.1)	DRR (41.6)	Med. (41.7)	Med. (41.5)
5th	Enviro (25.8)	Enviro (25.8)	CA (26.5)	Trans. (23.1)	Admin (27.1)	Admin. (31.2)

Legend: DRR = Disaster Risk Reduction; PS. = Public Safety; Med. = Medical Services and Sanitation; Enviro. = Environment; Admin. = Administration and Finance; CA = Consumer Affairs; Trans. = Transportation

**Table 1.** Tokyo Metro Resident Survey of Priorities, 2012-2017

Source: TMG 2017

This survey indication that TMG residents strongly support spending on resilience, much more than explicitly environmental measures, is one reason to look for how policymakers link their energy projects to the "resilience" theme. In TMG, the approach is evident in the use of the sewerage network as an anti-flood system (integrated with advanced radar and supercomputing) as well as a means for boosting TMG energy and cutting its GHG emissions (sewer operations result in 35% of TMG greenhouse gas emissions).<sup>10</sup> TMG's FY 2018 budget projects spending JPY 88.7 billion on the smart city, an increase of JPY 16 billion over the previous year. Given the above, it is no surprise that mitigation measures (including EVs, solar, Hydrogen Stations) are budgeted at JPY 12.7 billion while adaptation measures (bolstering river levees) are budgeted at JPY 76 billion (TMG 2018).

<sup>10</sup> TMG's use of its sewerages to adapt and mitigate is described in its excellent series of short videos (in Japanese), "Tokyo JOBs," released in May of 2017. The system integration with advanced radar and computing is described in "Real-time rainfall information" (<https://www.youtube.com/watch?v=SPaf3SDBrX4>) and the use of sewerages to increase renewables and reduce demand is outlined in "Effective use of energy" (<https://www.youtube.com/watch?v=tqmbz8zDV9g>)

In short, the evidence suggests that Japanese local governments and the public are quite amenable to changing the built environment as an adaptation response.

## Conclusions

The evidence indicates that, at least in Japan, the technocratic narrative is more credible and that its approach produces more robust results. Smart communities are clearly the core of an impressive, and expanding, energy-environmental policy regime. That said, the populist narrative is certainly correct that Japan could and should have more ambitious targets for renewable energy and reductions in greenhouse gas emissions. But the populists downplay the crucial role of collaborative agency and critical infrastructure, even though a rapid shift to renewables surely relies on both. That is, they do not ask whether civil society-centred governance has the organizational discipline to lead a cost-effective and competitive energy-environmental revolution in a country beset with an unparalleled array of demographic, fiscal, climate and other challenges. Their literature instead emphasizes reforms to the feed-in tariff, enhanced grid access, and other regulatory measures that they believe would increase community-power projects. But they shy away from discussing how one actually incentivizes the massive and rapid rollout of the critical infrastructures, such as smart networks, that allow the local political economy to maximize its exploitation of renewable endowments while minimizing energy consumption. And their interest in hazards extends only to seismic risks to nuclear facilities. They rarely, if ever, discuss the full slate of hazards and the urgent imperative of adaptation to climate change.

Indeed, the populists appear to perceive adaptation as coming at the expense of mitigation. Yet the global specialist debate now recognizes the urgency of doing both and the fact that they often overlap.<sup>11</sup> Abundant evidence indicates the potentially decarbonizing impact of resilient adaptation, especially when coordinated at the national level to maximize public goods and positive externalities. For example, compact cities and green infrastructure are inherently mitigating as well as robust in the face of mounting risks of flood, fire and other disasters (Bay and Lehmann 2017). So too are the smart distributed energy networks that are growing from within vulnerable, carbon-intensive conventional power and heating systems (MIT 2016). Japanese technocrats and their adaptation-led smart communities thus deserve more attention. They appear to offer valuable lessons in linking institutions, infrastructures, and actors towards resilient and equitable decarbonization.

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<sup>11</sup> On this point, see the critical comments of IPCC Working Group II on the "presumed tradeoff between mitigation and adaptation": <http://www.ipcc.ch/ipccreports/tar/wg2/index.php?idp=62>.

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# About the authors

**Joseph Caron** is former Ambassador of Canada to Japan

**Natasha Fox** is a Ph.D. Candidate, Department of Geography, University of British Columbia

**Noriko Yabuki-Soh** is an Associate Professor in the Department of Languages, Literatures and Linguistics, York University

**Jay Goulding** is a Professor in the Department of Social Science, York University

**Sachiyo Kanzaki** is a Lecturer in the School of Modern Languages, Université du Québec à Montréal (UQAM)

**Tom Waldichuk** is an Assistant Professor in the Department of Geography and Environmental Studies, Thompson Rivers University

**Andrew DeWit** is a Professor in the School of Policy Studies, Department of Economics, Rikkyo University