

## Accepted Manuscript

Title: Scenario projects in Japanese government: Strategic approaches for overcoming psychological and institutional barriers

Author: Ali Kharrazi Masahiro Kakuwa



PII: S0016-3287(16)30078-7  
DOI: <http://dx.doi.org/doi:10.1016/j.futures.2016.08.003>  
Reference: JFTR 2157

To appear in:

Received date: 17-3-2016  
Revised date: 31-7-2016  
Accepted date: 2-8-2016

Please cite this article as: Ali Kharrazi, Masahiro Kakuwa, Scenario projects in Japanese government: Strategic approaches for overcoming psychological and institutional barriers, Futures <http://dx.doi.org/10.1016/j.futures.2016.08.003>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## Scenario projects in Japanese government: Strategic approaches for overcoming psychological and institutional barriers

**Ali Kharrazi<sup>ac</sup>, Masahiro Kakuwa\*<sup>ab</sup>**

<sup>a</sup> Graduate School of Public Policy, The University of Tokyo, Japan

<sup>b</sup> Showa Shell Sekiyu, Japan

<sup>c</sup> Advanced Systems Analysis Group, International Institute for Applied Systems Analysis (IIASA), Austria

**Research Highlights**

- **We review differences in scenario planning between the private and public sector.**
- **Characteristics of the public sector constrain successful scenario planning.**
- **Strategic solutions include open discussion venues and ‘derailment’ exercises.**

**Abstract:** Scenario planning in the public sector has significant differences from scenario planning in the corporate world. Scenario planning in the government not only tends to be focused on issue of higher complexity and significance to public policy, but also in comparison to people in the private business, public officials have fundamental psychological and institutional constraints in their scenario thinking. These constraints make it difficult for them to contemplate multiple ‘untidy’ futures and imagine the possibility of policy failure: skills which are essential for successful scenario projects. Based on specific characteristics of scenario planning in the Japanese government, this paper contributes on better understanding the challenges and strategic solutions in providing more successful scenario planning in the public sector. Specifically, this paper argues that possible solutions in overcoming these constraints may be to shake public bureaucrats out of their thinking by providing free and open venues of conversation and more importantly through ‘derailment’ exercises.

**Keywords:** scenario planning, public sector, psychological barriers, institutional barriers, derailment

## 1. Introduction:

Government policy-makers are often forced to make a strategic decision with deep uncertainties in predicting the future outcomes of their decision. In the face of deep uncertainty, scenario planning can theoretically serve for policy makers with three functions. First, it helps policy makers to better situate their decisions vis-à-vis their continuously changing external environment [1] and detect signals of significant upheaval. Second, it can be utilized as an approach to manage emerging conflicts among opposing interests by finding common denominators [2], which furthers the policy making process. And third, it can in the long-run lay important cultural and cognitive foundations and inspire organizational learning [3], regardless of government or private sector applications, to become more adaptive and resilient to external fluctuations [4,5].

As Ringland [6],[7] proposes we can establish two categories when sorting the cases for scenario projects related to public policy, namely ‘scenarios in public policy’ and ‘scenarios in the public sector’. In the world of practitioners, the former theme of ‘scenarios in public policy’ has been developed into a particular school. Here, the scenario planning process is regarded as a potentially useful tool for changing current societal situations into better futures. It ranges from Kahane [8] who has been offering transformative scenario planning to ignite collaboration among different, sometimes hostile parties, to a campaign of Michel Godet [9],[2] who sees scenario planning (*prospective stratégique*) as a normative, constructive movement for creating and influencing a better future. This school calls upon those who are involved in the scenario project for clarifying anticipatory choices and taking actions for the future [10].

This paper aims at examining the applicability of the above theoretical advantages scenario planning could offer in the light of the experiences of a veteran scenario practitioner who has been working for the public sector in Japan [11]. This paper contributes to the scenario-planning literature by offering lessons for scenario planning in the public sector and should be of interest to academics, scenario practitioners, and government officials. The practice of scenario planning in the public sector can be significantly more challenging and approaches suited to the private sector may need refinement for government organisations. This challenge stems not only from the fact that government may tend to do jobs that are far more complex and wider in scope for public policy than the private sector, but also from distinguishable characteristics of the policy cycle within which government and officials manoeuvre. While the literature on scenario theory and practice specific to applications in the private sector is numerous [12], there are fewer studies which examine the nuances, challenges, and strategies relevant to public sector scenario planning.

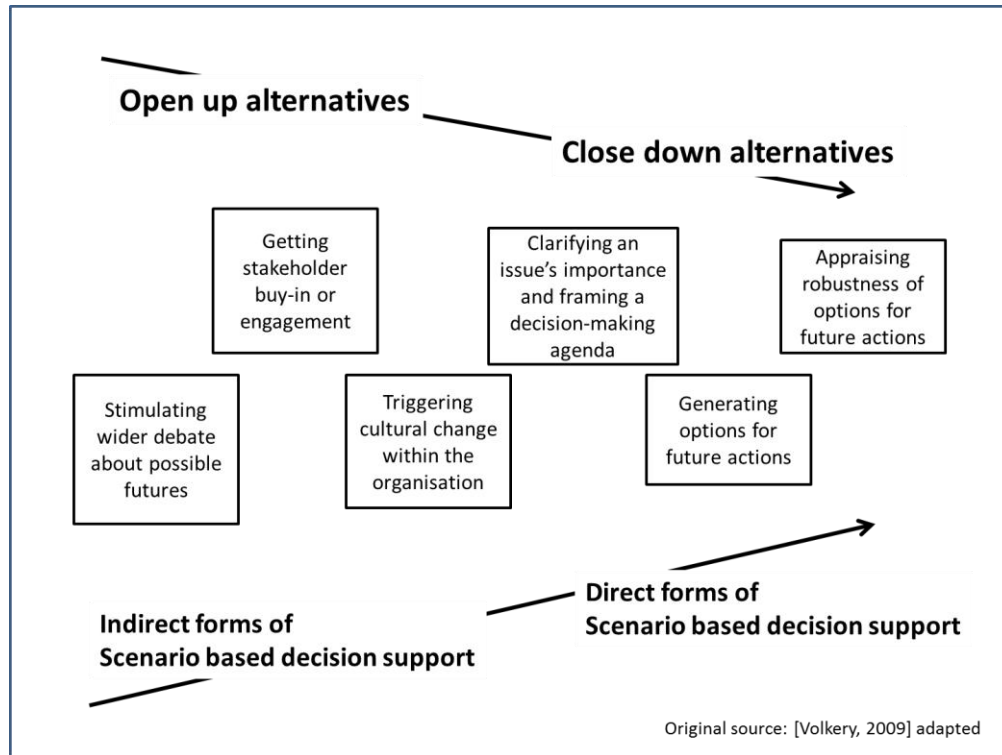
This paper mainly covers Ringland’s category of ‘scenarios in the public sector’ and attempts to provide fresh insights into how scenario planning is framed and leveraged in the policy-making processes. This paper is organized as follows: Section 2 introduces the literature relevant to scenario planning in the public sector and discusses the functional aspect of scenario projects

employed by the government officialdom and situates indirect and direct forms of decision support activities within their policy-making cycle. Section 3 discusses the specific characteristics of scenario planning in the Japanese government. Section 4 presents the methodology of the paper. Section 5 presents five case studies, four from the public sector and one from the private sector. These case studies are based on extensive experience of scenario practice in the Japanese public sector [11]. Section 6 presents an analysis and discussion where we attempt to identify the institutional and psychological barriers that prevent Japanese public officials from the full usage of scenario planning and propose practical ways to moderate these barriers. A conclusion follows in Section 6. We hope that this paper contributes towards a better understanding of the challenges and necessary approaches in providing more successful scenario planning in the public sector.

## **2. Situating functions of scenario planning with the policy-making cycle**

Scenario projects for the public sector are intended to contribute to support better policy-making. While policy-making cycles do not follow rigid linear stages [13],[14], the literature provides a useful framework to aid in situating scenario planning within the policy-making cycle. In this avenue, Howlett and Ramesh [15] argue that there are five stages in the policy making process: 1) policy issue identification, 2) policy issue-framing and agenda-setting, 3) policy measure development, 4) policy measure implementation, and 5) policy measure effectiveness assessment or policy termination. When a scenario planner is mobilized by a government body to conduct a scenario-style brainstorming process, this framework significantly helps the planner. Design of the process and facilitation skills are different according to the different stages in the policy-making process. By recognizing which stage the body has reached, the scenario planner can take a position in what would be precisely expected and successfully navigate the complex network of actors with their overlapping interests and conflicts in the brainstorming process.

Based on the above policy cycle framework, Volkery and Ribeiro [16] distinguish between indirect and direct forms of scenario decision support functions (Figure 1). The indirect form of scenario based decision support is useful for the early stages of the policy-making cycle. In this stage, public officials have to and are willing to explore alternative policy options as wide as possible. Novel ideas or criticism from the range of stakeholders will be welcomed in order to buy-in their engagement and to frame the policies. Moreover, at the early stages of scenario planning, indirect decision support activities provide the opportunity for public officials to assess the acceptability and social legitimacy of the policies in an arena free of institutional and political constraints.



**Figure 1** Forms of scenario-based decision support activities within the policy-making cycle.

In the later stages of the policy-making cycle, i.e. in the policy design and implementation stages, decision support activities may take a more direct form. In these stages, officials require more tangible and realistic guidance towards framing their decision-making agendas and options generation for further actions. Therefore, direct forms of decision support activities provide more focused information on possible strategies and the appraisal of their robustness. In this stage, the policy-making process often encounters the political debates where different interests compete for favourable compromise. Furthermore, serious political and administrative processes dominate this stage and opportunities for the wider participation of stakeholders becomes more limited as less favourable alternative options are eliminated.

When conducting a scenario planning project, a scenario practitioner can choose one of the two approaches for framing scenarios. Those are the normative and explorative approaches [17]. The literature on scenario planning theory is explicit on the dichotomy of the normative and explorative approaches. Each of these approaches shape the scenario framework, stories, and the conduction of workshops differently [17]. The normative approach starts with the set of characteristics at the end of the time horizon and works backwards to see what would take to get there. This approach is employed when the client knows the future he wants to describe. The normative approach can be seen as the desire to realize a preferred future, where the function of employing the scenario approach is to find any pitfalls or external forces that may hinder the realization of the preferred future. On the other hand, the exploratory approach can be used when the client does not need to be ready for his desired future [18], or when the client deliberately

wants to review its working premises [19], i.e. their mental map, afresh. With the exploratory approach the client is open to explore and take up any uncertainties which might affect his future plans to achieve a scenario. This distinction between the two approaches is theoretically important and may indeed rescue the practitioner when he or she is stuck and confused in the middle of a workshop discussion.

### **3. Scenario planning in the Japanese government**

Scenarios are stories about the future. Michael Porter defines a scenario as "An internally consistent view of what the future might turn out to be - not a forecast, but one possible future outcome" [20]. From this definition, we can accept that a scenario can be written free from our desire of the preferred future. From this bold exploration we can consider our future more extensively; because a scenario is "one possible future outcome" we are allowed to explore alternative equally possible futures as well. This is the function of scenario planning and its value has been recognised by many organisations both private and public.

However based on the track record of the many scenario projects in Japan and the insights accrued from these projects [11], one can argue that there are distinctive institutional and psychological barriers that prevent Japanese government officials from the full appreciation of scenario planning. For bureaucrats, the possible existence of several different but equally plausible futures means that a scenario project is going to jeopardize what the political process has officially foreseen and agreed upon. This means that bureaucrats will not yet be able to hook their policy packages onto the one comprehensive picture of the future. Hence, bureaucrats will flatly carry on the scenario study until the scenario project gives birth to an only child! The participants in any study around a politically sensitive issue, according to bureaucrats, have to arrive at the one single future, which will be a great improvement on the present and bureaucratic will to bring about that future by spending taxpayers' money.

This is the institutional barrier. For bureaucrats, a scenario exercise is simply muddying their clear vision of a better future. Why, a bureaucrat asks himself, is this workshop so loosely managed? Why does the facilitator stubbornly push me to think of 'other' visions? The future has already been agreed, and shortly, the government will launch a concrete policy package to bring it closer. This exercise is dysfunctional and even dangerous. Is the facilitator a born cynic? Is he a trouble maker? In this mental setting, the bureaucrat's frustration boils over. This is not simply a matter of a scenario exercise taking place at the wrong time for the bureaucrat's working mission nor is he confused by the scenario making process, but simply, he may find the scenario workshop to be a dangerous event.

Adding to the institutional barrier, there is a psychological one. Bureaucrats are technocrats and want to be rational, neat and tight. They frame their questions in terms of what is best and what is true and they pride themselves on their professionalism. A technocrat wishes to be an excellent executor of given policy goals. For them, the goals have to be politically agreed upon



beforehand. In this sense, the technocrat is like a good chef. He has meat, fish, vegetables and flavourings. He has his secret recipes, but definitely needs an order from his customers. Will the order be fish or meat? Italian or Chinese? Having taken the order, the chef will make every effort to satisfy the customer's appetite. He is not allowed to fail. Like the chef, the bureaucrat inhibits himself from even imagining any failure in their administrative execution.

Another observation of the Japanese scenario projects in the public sector is that although a Japanese government body may agree to embrace a scenario framework that accommodates several different futures, it prefers and clings on to the normative approach. This inclination can be explained by the over politicisation of the usage, stories, and end results of scenario planning projects.

Japan's government organization is compartmentalized [21],[22]. It is divided into Ministries. Ministries are divided into Secretariats (Kambo) and Bureaus (Kyoku), which are further divided into Divisions (Bu). The Divisions are further divided into Sections (Ka) and Rooms (Shitsu) [23]. Inside a Ministry, Bureaus exercise huge influence over the policy making process wherein the majority of cabinet-sponsored bills are formulated. Each Bureau works almost independently from other governmental compartment. There is a saying "Bureaus but no Ministry" [22]. Thousands of bureaucrats, particularly in the higher ranks are not living as one united officialdom, but in a very competitive working environment [24]. In this setting, one part of the government challenges another part. Each tries to promote its own policy packages to influence politicians. In order to demonstrate that "its" policy is much better than the "others", a visionary story of a bright future told with colourful graphics and narration is highly appreciated. Here, very often shadow scenarios which describe rather a doomed future are packaged. The shadow scenario functions as suggesting a failed outcome without the introduction of the proposed policy package. Indeed, scenario stories can communicate well. They make it easy for listeners to capture the holistic image of a bright future. The vision and rhetoric are appreciated by politicians whom are the clients of the bureaucrats.

The over politicisation of the usage of scenario planning demonstrates even in the latter stages of the policy-making processes, i.e. in the policy measure development and policy measure implementation. In these stages, the Japanese bureaucrats often make use of a scenario project as a benign negotiation place for their stakeholders - a place where a small interest group can develop around them. In a policy paper they habitually produce, there is a "Part One: Vision", followed by the lengthy administrative narratives, as there is a "Part Two", where they describe in detail how to implement the Vision. Armed with numbers, the writing style of Part Two is rather detached, passive, and marked by compromise. It looks like a non-partisan document, but in reality it often represents the particular interest of one part of the government, most cases the interest of a particular Bureau or down under in a particular Ministry. The policy experts in academia and in the private sector are welcomed to work on Part Two together with bureaucrats; however they are only welcome as faithful supporters (or clients). Although the experts have a chance to intervene and consider details in Part Two, the experts usually don't

challenge Part One. In Part One, there is the Vision, the preferred future, and alternatives which are illustrated as less attractive. In the end, the bureaucrats want to channel the stakeholders toward their preferred policy package, which should be the one, not several. Again, for the bureaucrats, Part One should be the smashing showcase, which one branch of the government wants to ‘sell’ to politicians; therefore it is understandable that the bureaucrats don’t want to ‘sell’ a doomed future or a ‘shock scenario’. The great fear of Japanese political leaders is unexpected events, especially those which lie beyond their control. Bureaucrats cannot envisage the government doing its job badly. This reaction is common in national bureaucracies elsewhere. Notably, policy-makers in the UK have been found to emphasize the credo that “what counts is what works” and therefore expressing uncertainty is seen to be politically weak and administratively untidy [25].

#### **4. Methodology**

The goal of this research was to gain insight into the particular challenges of scenario planning in the public sector. In this avenue, the case study methodology by Yin [26] was combined with action research [27]. Although both case-study research and action research are context-bound, the latter approach permits a greater role, based on the perceptions of the practitioner, in defining the questions and challenges that will be addressed within the particular context [28]. This approach has increasingly received more attention in the scenario planning field and variants of action research are now commonly practiced [29]. While it is not the intention of this paper to discuss in depth philosophical research approaches, however the following points will further clarify the methodology of this study.

The discussions within this paper are based on 5 scenario planning case studies - four from the public sector and one from the private sector. For confidentiality reasons, the institutions to which the case studies refer to have been rendered anonymous. A case study is a particular qualitative empirical strategy carried out by researchers who examine a group of people undergoing an activity or phenomenon [30–32]. The focus within these case studies is the process of the activity where by certain aspects of the mindset and behavior of the participants, i.e. institutional and psychological barriers, are made explicit. These case studies are beneficial in situating these barriers and expanding the discussion on how and why scenario planning projects are different between the public and private sectors.

In this study, the corresponding author acted as the scenario planning practitioner within the five case studies. Within this capacity, he acted as coordinator and architect of the strategic planning process for the scenario workshops. The methodology of this paper is based on these 5 case studies and in combination with action research approaches. Action research is suitable to practitioners as they intend to improve real situations and solve real problems in their practice. In action research, a four phase cycle is typically prescribed in the literature as act-reflect-observe-plan-act [27]. However, these four phases are a continuous process and their linearity and

sequence are fluid in practice [33]. These phases guided the researcher's in developing the discussions from the 5 case studies of this study.

#### ***4.1 Data Collection***

The data collected from the 5 case studies are from multiple sources and triangulated, whenever possible, for purposes of validity. In particular three data sources were used:

- 1) The documents, presentations, and meeting summaries developed during the scenario planning workshops
- 2) Semi-structured one-to-one interviews and discussions with the scenario participants
- 3) Firsthand observation and feedback from the scenario planning workshops

#### ***4.2 Data Analysis***

While the analysis of case study data is less developed in comparison to other aspects of the case study methodology it is recommended to develop general analytical strategies to guide the researcher on what will analyzed [34]. In this avenue, Trochim [35] presents pattern-matching as one of the most useful analytical strategies for case study data analysis. In the pattern-matching technique, researcher compare empirically based pattern with predicted patterns. If the predicted and empirical patterns match across multiple case studies the results are strengthened and the confidence in the employed method is elevated.

### **5. Scenario Planning Case Studies**

#### **5.1. Refinery Closure**

This scenario planning project was a series of top-management workshops, held as three-half day workshops, every forty to 50 days, over a half-year timespan. The scenario project was commissioned after a recent merger of two energy companies and aimed to objectively assess the factory under several different business environments in the long term. However, the top managements came to the workshops with their own pre-determined opinions. In one camp, the participants aimed at finding new solutions for keeping the refinery, at the heartland of one of the merged company, open and prevent a significant number of staff redundancies. The CEO of the newly merged company had been in this camp and behind him was an internal interest group, which had been strongly opposing the closure. The interests of the second camp however, lied in an integrated and orderly closure of the refinery.

While the workshop discussions were choked with competing interests, the discussion arena was expanded through analytical thinking and transparent decision-making processes. However, the scenario planning project and participants of the workshop were stunned by the sudden resignation of the CEO – a tragedy had hit the company. The CEO's resignation was mainly due

to the transparent and rational research and discussion which had gradually converged on the closure of the refinery and thus forcing him to lose maneuverability in his position. The CEO had indeed accepted the unattainability of his position and the failure to keep the refinery open and his resignation added to the bitter success of the scenario planning project.

## 5.2. Nuclear Power Policy Paper

This scenario planning project was commissioned in 2004/5, years before the earthquake, tsunami and Fukushima Nuclear power incident in March 2011, by a Japanese quasi-governmental research institute. Top experts were mobilized from the nuclear and energy industries, from academia, and public bodies. The intention of the scenario researchers was to articulate stories that clearly and eloquently communicate the essence of the relevant issues of the Nuclear Power Policy Paper, including any complications, to the wider public. The scenario researchers succeeded in arriving at a distillate of the issues however, the key remaining uncertainty was over unresolved policies for dealing with spent uranium fuel from nuclear power plants. Japan's official policy has long been to construct a reprocessing plant in Japan, hopefully for full reprocessing, which completes the so called 'closed fuel cycle': however, *where* to construct that plant has proved a difficult issue.

The scenario researchers had addressed through different scenarios how the spent fuel issue could be solved. One story mentioned the name of a local community, which was the proposed venue for a high-level radioactive waste disposal and storage facility. Some experts became hesitant to mention the name in order not to evoke any local NUMBY (Not Under My Back Yard) syndromes. This was the start of a process of deterioration, as one after another, intriguing points in the scenarios were regarded as 'best left unsaid' and the work started to lose purpose and clarity. Furthermore, gradually the president of the research institute's motives for sponsoring the study became clear. The president was a former high-ranking bureaucrat, and still maintained his influence over Japan's energy policies. The president wanted to provide a plausible alternative, with himself as its champion, and intended to challenge the current policies of his younger successors at the government. The world Japanese high-ranking bureaucrats inhabit is adversarial and competitive in policy-making and propagation. They behave not only as technocrats but also as politicians.

The scenario project could not meet the sponsor/client's expectations and did not facilitate the discussion to arrive at the pre-composed storylines. The client's own vision was valid and quite consistent, but it was not the only vision, and we did not discard its rivals and especially did not aim at sidestepping and avoiding significant unsettled issues such as unspent nuclear fuel. Towards the end, this project had eventually turned into a magnetic field for experts' earnest debate on Japan's nuclear policy. Seeing this unheralded development, the president switched off

the project abruptly. The scenario practitioner lost face to everyone and six months of work was scrapped.

### **5.3. Energy 2030: Japanese Government Official Midterm Energy Planning**

The “Energy 2030” scenario planning project was sponsored by the Japanese Ministry of Economy, Trade and Industry (METI), took nine months to finish, and was published in May 2005. The participants of this project consisted of renowned experts, half of which were METI personnel and the other half from external academic institutions and the private sector. The inductive approach was employed in the making of the ‘Energy 2030’ scenario. Within this approach, the research starts from the issues seen at present and then the present transforms itself in multiple ways as the current set of economic and social issues evolved and naturally interacted with each other.

The aspiration of the client, METI, was clear. They wanted to drive the present societal-industrial system to a less carbon-intensive model, given that it was the international fashion in 2004 to develop visions of a ‘low carbon society’ future. Unsurprisingly, the “Self-sustaining Development” scenario was the one METI wanted to promote. During the initial phase of the project, the normative goal of a low-carbon vision was thoroughly developed and the relevant storylines towards the year 2030 were created. In the second phase of the project, participants were asked to deliberately derail from the preferred scenario and think of any possible ‘failed’ scenarios. Suddenly, the workshop process was revitalized. The worrying future of No Action “Environmental Constraint” and Not-Enough Action “Business As Usual” reappeared. The research team willingly jumped in to consider these new issues. The METI client also decided to incorporate potential oil shocks into their thinking in order to give an abrupt discontinuity to their stories.

In March 2005, the ‘Energy 2030’ scenario project was presented to a government-led high-powered expert council advising on Japan’s energy policy and evoked a high quality debate. The council decided to keep the scenario story in its policy paper, which went straight to politicians whom were to decide Japan’s long term energy policy. “Energy 2030” was a timely work amid the increasing pressure to respond to the global climate change agenda and due to the derailment exercise was well balanced in considering a wide range of scenarios.

### **5.4. Urban Mobility 2040**

Urban Mobility 2040, was a study done by Japanese academics who were closely working with the Japanese government. This study aimed to illustrate the several possible shapes of Japan’s urban design and civic mobility in the coming century. In this avenue, two scenarios were envisioned. The “Public Transport Scenario” told of heavy investment in, and utilization of,

Japan's public urban transport system, bringing about a society with low carbon emissions. On the other hand, the "Private Transport Scenario" explained how electric vehicles (EV) technologies and related services would boost the Japanese economy and gradually change Japan's transport and urban societal system.

The "Urban Mobility 2040" scenario project anticipated that problems will resolve themselves once the government notices that they exist and can consequently put its policies into effect. The Japanese government will exercise its masterful organising force, marshaling scientific and engineering enterprise to transform society. Indeed, this scenario work did communicate well with the Japanese government and other public sector organizations specializing in urban planning. However, the academics, due to their past proximity with the governmental regulators, were hesitant to imply unwanted scenarios based on technological or institutional failures. Furthermore, the academic mindset carried some inhibition in challenging the government and implying the possibility of policy failures. Although the scenario planning process was successful and the client was content with the findings and scope of the policy options, however the process could have been strengthened through an addition of a third derailing scenario. In retrospect, the academics could have proposed the depletion of the subsidy funds for promoting EV deployment in the domestic market or the intensification of the aging society and its negative effects on the public transportation as separate derailment scenarios.

### **5.5. China Scenarios 2007**

From 2006 to 2007, a Japanese research institute, a Non-Profit Organization (NPO), conducted a scenario study on China's energy saving in the long term future. The aim of the work was to ignite a conversation between Chinese and Japanese experts on energy saving issues. In this scenario work, the success of China's drive towards an energy saving society was conditional on the state of the Chinese domestic economy. A global economic downswing could happen any time and would hurt the Chinese economic boom, which for many people then (as now) appeared unstoppable. The 'China Scenarios 2007' provocatively suggested that if the Chinese government was incompetent to cope with an international or domestic macroeconomic crisis the recession might be prolonged for years to come. Moreover, any recovery might become steadily more difficult as China faced the onset of an ageing society and a resulting smaller workforce and higher social welfare bills. Economic activity would plunge, resulting in less energy consumption but also eclipsing in peoples' minds the importance of energy saving. The scenario argued that the energy saving mindset is seeded mainly in city dwellers' affluent spending behavior and not among the rural Chinese population. This is the message Japanese energy experts wanted to deliver, outspoken and undimmed.

The NPO presented 'China Scenario 2007' at an international conference in Shanghai focused on energy conservation. Notable researchers, regulators and business leaders listened to

the scenario. The NPO received many comments and questions from the floor. Chinese experts wanted to show the numerical relationship between a macroeconomic crisis and energy-saving habits and having anticipated this line of questioning, the NPO was ready to share the scenario project's research results. A good exchange of views took place, with Chinese and Japanese thinkers freely speaking their minds to each other. Later after the conference, the NPO was told that many senior officials in the Chinese government attended the presentation and conversed with energy experts.

If people in the government feel very unwilling to acknowledge the chance of their work eventually going wrong, then the scenario exercise is pointless for them. This exercise usually depends on accepting the assumption that the environment around policy implementation may change over time, that implementation itself is imperfect, and that therefore one has to be ready for when things go wrong. The success of the scenario process for the "China Scenarios 2007" was largely due to the process taking place in a free and un-inhibited venue through an NPO research institute. This project illustrated how the inherent psychological and institutional barriers of scenario planning for the public sector can be eased through facilitating a discussion of possible governmental policy failures.

#### **4 Analysis and Discussion : Lessons for improving scenario planning exercises**

Different stages of policy making require different functions of scenario planning. One can observe that scenario planning in the Japanese public sector confirms to the policy-making cycle framework (Figure 1). In the Japanese policy-making process, the government sometimes calls for a scenario style brainstorming event with participants outside the government, such as NGOs and academics. However, these initiatives appear when the process is in the stage of issue identification, issue-framing, and agenda-setting. Those who wish to have a say on issues and agendas ask for venues to express their opinions and the government responds by providing such venues. For public servants, who have to administer these venues through budget allocations and bureaucratic paper work, following a *right* process is the base for the authenticity of the venue and discussions. And for scenario practitioners, as private consultants, they see this as the market to offer their expertise and they commercially compete by proposing the *rightest* process and *rightest* venue to the clients/sponsors in the public sector. These circumstance may eventually lead to the standardization (and mechanization) of both process and venue. On the other hand, when the process develops to the stage of policy development and policy measure assessment, Japanese officialdom is cautious in inviting outside voices. Obviously the process has reached the "close-down alternative" stage and therefore requires more direct decision support functions, which might not be accrued from scenario planning methodologies. Here, bureaucrats will have to maneuver and craft compromise with a limited number of stakeholders – i.e., stakeholders of the particular Bureaus (Kyoku) or Divisions (Bu).

The scenario exercises for Japanese government bodies very often follow the normative approach. Given this approach, bureaucrats may admit that the future is not simply the quantitative extrapolation of the past; however they yet habitually cling on to one single self-desirable future. Recognising that this process would most probably follow the normative approach, a scenario practitioner can ‘ad intium’ assist the bureaucrats in understanding that the future can take several different shapes. In practice, the practitioner can allow the bureaucrats to write up a story line leading to their desirable future. Then in the next stage, he can ask them to re-think about the plausibility of their story and to think through the critical uncertainties which might prevent the smooth development of their story from the present. This process can be termed as “derailment” and a very useful tool in overcoming the inherent challenges with scenario planning involving bureaucrats. Hence, the bureaucrats are allowed to always refer to their normatively constructed future, with their exploratory adventure of derailing from it.

In some cases, the practitioner, especially if the practitioner comes from abroad, may venture to impose an exploratory approach in the scenario planning process. However, for Japanese public officials, this approach is psychologically challenging. In the course of exploring vague unshaped uncertainties in the future, they feel insecure because this approach deploys qualitative, rather than quantitative analysis. When exploring futures, it is essential to get rid of the anchor of data sets and conventional modelling and learn to experiment with the top-down or ‘deductive’ approach. However, because the data sets and conventional frameworks are the prime source of confidence and legitimacy among bureaucrats, they often see the scenarios formulated through the exploratory approach either as baseless or overambitious. In other words, the officials are constrained by what can be termed as a cognitive freezing [36]. This refers to the freezing of the public officials’ belief system in perceiving any failure in their professional paradigm.

How can a scenario practitioner ease these psychological barriers? We know that the time horizon for politicians is rather short, while the policy execution needs to play out over a much longer period. This means that the environment around the policy execution, that is the task of bureaucrats, is ever more vulnerable to change with time. Hence, the methodological risk assessment of the implementation of the current plan must be in the bureaucrats’ interest. This paper is not arguing that the normative approach our bureaucrats so much like is inappropriate. A society can agree on its desired direction, for example a long-term transition to sustainable development, after which government and individual bureaucrats move on to their own agenda of how they can influence such a transition. However, as Grin et al. [37] argue it seems reasonable to say that some issues are open-ended, and are best approached, or explored, with a mind-set that allows for the possibility of change.

A possible legitimisation for inviting scenario planning in Japanese officialdom might be to boldly demonstrate the unavoidable and uncertain nature of the future horizon by the bureaucrats themselves. *Their* scenario study will report the crude fact that any development of policy environment towards the future contains some uncertainty. A well-argued scenario framework



could convince audiences to accept the need of an exploratory mind set and for being ready for future surprises. This means that by offering politicians a thinking framework in the scenario style, bureaucrats can establish their professional independence from the political decision process. In this setting, the choice will be made by the politicians for the preferred policies and plausible outcomes. In return bureaucrats can claim with pride that their role is only to offer several equally possible policy choices. They are now living in the realm of professionalism; however, can they ever restrict their born ambition of being part of important political decisions?

Recently, Japanese bureaucrats specialised in energy policy-making received an important lesson on the politician-bureaucrat relationship. The recent political turmoil in Japan has been teaching bureaucrats that the governing practices of the ruling party may not always work. In 2011/12, after the great Tohoku earth quake, tsunami and Fukushima nuclear accidents, the Democratic Party, the then ruling party, strived hard and attempted to fix the national energy plan with a package of numerical targets. Bureaucrats specialised in energy policies were mobilised heavily and with the help of outside experts they crafted piles of supporting calculations and documents. Furthermore, the Democratic Party introduced a novel process of ‘deliberative polling’ in order for the lay citizens to discuss and come to an ideological consensus around the future of nuclear energy and its industry. The conclusion of these processes was to disestablish nuclear power as soon as possible. But, when in 2012 the Liberal Democratic Party returned to power, the Democratic Party’s energy plan was instantly abandoned. The prime minister decided to scrap the plan with a brief statement that the plan ‘is not based on the reality and needs a full revision’. This resulted in a gross humiliation for the public servants and a crisis for Japanese bureaucracy because by force of habit, bureaucrats have been fixated on the high profile examples and the well-understood procedures of the past. As Cerase [22] argues, this kind of administrative skill has been regarded as an important asset in order to handle critical situations with a sense of stability. Here, one can argue that the above case betrayed and undermined the authority of officialdom. By drawing on these profound lessons, would bureaucrats cautiously retreat and suffice to their proud professionalism?

It is no surprise that senior public servants won’t abandon their ambition to get involved in the high level political decision process and believe that this involvement may eventually lead them to possible political careers. In Japan, senior public servants are regarded by political parties as the reservoir of candidates for general elections. Politicians and senior bureaucrats are both statist and reliant on each other. For them, the boundary between the political and the administrative world is blurred. The senior public servants want to claim themselves as hard-headed, earnest, with reliable personalities, and hence they are most hesitant to fiddle with any hypothetical issues and questions, which scenario planning is very much good at.

There is another idea for moderating the bureaucrats’ psychological barriers. This idea is more practical and operational. Providing a venue for unfettered conversation often works fairly positive on their mind. They are not philosophically normative but are, once functioning in the officialdom, destined to behave normatively. Therefore, for them there is a need of venues

outside the officialdom. Their desire to have a free space for free discussion seems to demonstrate an interestingly subtle manner; that is, bureaucrats seek weak governance on government sponsored scenario projects.

There is a growing demand from Japanese government bodies for scenario planning type projects. However practitioners have been observing that when a project starts, the governance on the process is very often left weak and unclear [11]. The client leaves the objectives of the project loosely defined at the initial stage, which would gradually be found and formulated through the course of the scenario type brainstorming. For the practitioner, he/she will have to accept the shifting and even floating objectives that the client and the practitioner originally contracted. In these circumstances, the evaluation of success or failure of the project might be difficult if one wishes to employ the criteria of a target-result axis. The reason for this seems simple. The client and the sponsor view the project as a one-off event and expect that something novel would happen through the discussion process. In the Japanese public sector, scenario type projects, compared to the day-to-day policy making and execution, is yet an isolated event. Therefore, loose governance over scenario type projects is understandable. The clients wish to have a learning experience, refreshment, breeze, room for wonderment, and intellectual adventure. Scenario practitioners working for the public sector can fully empathise with the professional and administrative innovation of their clients and accept to undertake this allocated role modestly. It is indeed true that the scenario planning process is intentional and committed institutionally. However, participants are constructing individual meaning, taking in new information, accommodating them, and changing their mental models. This is an individual learning, not an organisational one, and this is the niche for the scenario projects in Japanese public organisation.

## 5 Conclusion

Reflecting on Ringland's [6] proposal of the two categories, i.e., 'scenarios in public policy' and 'scenarios in the public sector', the former type of scenario projects can be counted as numerous. Future scanning projects and scenario projects have been developing in a much more institutionalised and regularised manner such as in the UK, Sweden, Norway, Singapore, and notably the EU, where a 'future scanning industry' has become popular and is flourishing. However, seeing the long history of the R.D. Shell scenario planning [38], one may be able to point out that the excessive institutionalisation of these activities could bring about the loss of momentum both in the client side and also for scenario practitioners.

The above concerns seem to be well noticed in Japan, especially in the public sector. It is observed however that the loose governance of the scenario project and the isolation from the policy making process might be intentional. Bureaucrats live the world where neat, evidence-based documents, and proper administrative process are required. Whereas, a scenario project is in general very time consuming and only yields stories of several plausible futures! This may seem as awkward and disappointing for bureaucrats where the outcomes of the scenario planning

may never be translated into concrete actions. For all reasons, this is understandable. Scenario practitioners working for the Japanese public sector are asked to concede, to a certain degree, their pedigree methodologies and to adapt themselves to the allocated role.

Two important strategies are found in this paper in order to overcome these barriers and for engaging bureaucrats in explorative scenario approaches. The first strategy is to provide free and open venues for conversation and the second strategy is to conduct ‘derailment’ exercises. One can notice how young bureaucrats are more and more conscious of the institutional barriers within the government as well as the psychological barriers within individuals that impede scenario-type studies. These young bureaucrats are trying to break the mold and scenario practitioners can watch their progress with admiration. With recognition will come change.

## References

1. Varum CA, Melo C. Directions in scenario planning literature - A review of the past decades. *Futures*. 2010;42: 355–369.
2. Durance P, Godet M. Scenario building: uses and abuses. *Technol Forecast Soc Change*. 2010;77: 1488–1492.
3. Vecchiato R, Roveda C. Strategic foresight in corporate organizations: handling the effect and response uncertainty of technology and social drivers of change. *Technol Forecast Soc Change*. 2010;77: 1527–1539.
4. de Geus A. The living company. *Harv Bus Rev*. 1997;75: 51–59.  
doi:10.1080/01636609809550303
5. Chermack TJ, van der Merwe L. The role of constructivist learning in scenario planning. *Futures*. 2003;35: 445–460.
6. Ringland G. *Scenarios in Public Policy*. Chichester, United Kingdom: John Wiley & Sons; 2002.
7. Ringland G. The role of scenarios in strategic foresight. *Technol Forecast Soc Change*. 2010;77: 1493–1498.
8. Kahane A. *Transformative Scenario Planning : Working Together to Change the Future*. San Francisco: Berrett-Koehler; 2012.
9. Godet M. *Manuel de prospective stratégique. Stratégies et management*. Paris: Dunod; 2004.
10. Bradfield R, Wright G, Burt G, Cairns G, Heijden K Van Der. The origins and evolution of scenario techniques in long range business planning. *Futures*. 2005;37: 795–812.
11. Kakuwa M. Scenario projects in Japanese government: Twenty years of experience, five tales from the front line. 2015. Report No.: GraSPP-DP-E-15-001.
12. Amer M, Daim TU, Jetter A. A review of scenario planning. *Futures*. 2013;46: 23–40.
13. Dye TR. *Understanding Public Policy*. Englewood Cliffs, NJ: Prentice Hall; 1984.
14. Hughes N. Towards improving the relevance of scenarios for public policy questions: A proposed methodological framework for policy relevant low carbon scenarios. *Technol Forecast Soc Change*. 2013;80: 687–698.
15. Howlett M, Ramesh M. *Studying Public Policy: Policy Cycles and Policy Subsystems*. Oxford: Oxford University Press; 2005.
16. Volkery A, Ribeiro T. Scenario planning in public policy: Understanding use, impacts and the role of institutional context factors. *Technol Forecast Soc Change*. 2009;76: 1198–

- 1207.
17. Heijden K van der. *Scenarios: The Art of Strategic Conversation*. Chichester: Wiley; 1996.
  18. Milestad R, Svenfelt Å, Dreborg KH. Developing integrated explorative and normative scenarios: The case of future land use in a climate-neutral Sweden. *Futures*. 2014;60: 59–71.
  19. Shell International. *Scenarios: an Explorer's Guide*. The Hauge: Shell International BV; 2008.
  20. Porter ME. *The Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press; 1985.
  21. Kushida KE, Shimizu K. Syncretism: the politics of Japan's financial reforms. *Socio-Economic Rev*. 2013; 1–33.
  22. Cerase FP. Japanese Bureaucracy in Transition: Regulating Deregulation. *Int Rev Adm Sci*. 2002;68: 629–647.
  23. KOH BC. Paths to Advancement in Japanese Bureaucracy. *Comp Polit Stud*. 1982;15: 289–313.
  24. Toye J. *Modern Bureaucracy*. Research Paper No. 2006/52; 2006.
  25. Ling T. Decision making in the public sector. In: Ringland G, editor. *Scenarios in Public Policy*. Chichester: John Wiley & Sons; 2002.
  26. Yin RK. *Case Study Research: Design and Methods*. London: Sage Publications; 2003.
  27. Floyd J. Action research and integral futures studies: A path to embodied foresight. *Futures*. 2012;44: 870–882.
  28. Argyris CR, Schön D. Participatory action research and action science compared: A commentary. In: Whyte WF, editor. *Participatory Action Research*. Newbury Park, CA: Sage; 1991. pp. 85–96.
  29. Inayatullah S. Anticipatory action learning: theory and practice. *Futures*. 2006;38: 656–666.
  30. Pettigrew AM. *The politics of organizational decision making*. Futures. London, UK: Tavistock; 1973.
  31. Yin R. *Applications of case study research*. London, UK: Sage Publications; 2003.
  32. Stake RE. *The art of case study research*. Thousand Oaks, CA: Sage; 1995.
  33. Reason P, Bradbury H. *Handbook of Action Research: Participative Inquiry and Practice*. London: Sage; 2001.

34. Tellis W. Application of a Case Study Methodology. *Qual Rep.* 1997;3: 1–19.
35. Trochim W. Outcome pattern matching and program theory. *Eval Program Plann.* 1989;12: 355–366.
36. Mezias JM, Grinyer P, Guth WD. Changing collective cognition: a process model for strategic change. *Long Range Plann.* 2001;34: 71–95.
37. Grin J, Rotmans J, Schot J. *Transitions to Sustainable Development. Transitions to Sustainable Development: New Directions in the Study of Long Term Transformative Change.* New York & London: Routledge; 2010.
38. Wilkinson A, Kupers R. *The Essence of Scenarios: Learning from the Shell Experience.* Amsterdam: Amsterdam University Press; 2014.