

*Full Length Research Paper*

# **Crisis perception in decision making: An innovative conceptual framework and its application in disaster relief**

**Allen Lai Yu Hung**

Lee Kuan Yew School of Public Policy, National University of Singapore, 469C Bukit Timah Road Singapore 259772.  
E-mail: [allen@nus.edu.sg](mailto:allen@nus.edu.sg). Tel: (65) 6516 6134. Fax: (65) 6778 1020. Website: [www.lkyspp.nus.edu.sg](http://www.lkyspp.nus.edu.sg).

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**Decision making is the most vital stage in the public policymaking, especially when decision makers face crises. There is a rich theoretical literature and dense theory buildings on decision making in politics as usual, but little is empirically understood how perception of crisis decision-making is shaped. This paper focuses on the stage of decision making in face of crisis. The author develop an innovative conceptual framework to analyze what decision makers perceive of their circumstances, and the reasons behind the adoption and pursuit of major changes in public policy. In this paper, the process and content of perception in decision making have been studied, and contested. The author, further tap into an empirical case study about the practical implications of these insights and more specifically about issues of perception formulation. A case study of Singapore Red Cross in Asian Tsunami relief is presented as an example of perception formulation in crisis decision-making.**

**Keywords:** Perception, Singapore, disaster relief, Tsunami, crisis, decision making.

## **INTRODUCTION**

Following the policy stage heuristic, formulated policies, among others, come to a critical juncture – decision making. Decision making is the most important stage in policymaking and has a rich theoretical literature and dense theory buildings (Braybrooke and Lindblom, 1963; Forester, 1984; Howlett and Ramesh 2009; March, 1994; Rochefort and Cobb, 1993). Most relevant literature discusses decision making in politics as usual, but little has touched the decision making in crisis.

At the moment of “crisis” or “non-crisis” where the intervention of crisis accrues, and the perception is formed, a policy window subsequently opens to potentially bring about significant changes in public policy. In Kingdon’s (1997) words, a stream convergence of policy, problem and politics is made possible for policy entrepreneurs to leverage this policy window. The perception of crisis varies from whether its source and motivation are within or outside existing policy processes. For decision makers, source and motivation of perception can be formed either internally or externally. The internal factors that shape the perception include their preferences and understanding of the issues they face whereas the external factors involve societal and bureaucratic

interests, the historical and international circumstances within which the crisis has emerged.

This paper aims to investigate how perception of decision makers is shaped in face of crisis and elaborates how such perception impacts policy making. To do that, the author, analyze how decision makers deal with their circumstances, and explore the reasons behind the decision adoption. In doing so, we expect to better explain the dynamics and mechanics of the time when decisions are made in the crisis.

## **METHODOLOGY AND DATA SOURCE**

In view of policy scholars, decision making is being recognized as highly contingent and complex processes, but that such process requires an appropriate research methodology to move beyond statements of their uncertainty and complexity (Holzner and Marx, 1979).

To develop this argument, the author proceeds with a stepwise approach. First, after reviewing literature the author develop a conceptual framework where insights of perception are formed at the stage of decision making in face of crisis. Second, the author use an empirical case study to illustrate the practical implications and, more specifically, about issues of perception formulation derived

from the framework. To be exact, an empirical case study of Singapore Red Cross in 2004 Asian Tsunami relief is presented to illuminate the conceptual framework as an example of perception formulation in crisis decision-making.

The conceptual framework paints the process of decision making which originates within the formal policy process and is illustrative of competing forces in the decision making. The framework upholds two assumptions. First, that decision makers are situated in the key position with legitimate power to make critical judgment is assumed. Second, a quality decision making is by no means the policy goal, and intended outcome for every decision maker is supposed to attain.

The material in my case study is based a set of mixed methods – the relevant literature, interviews, briefings, and communication with the Singapore Red Cross staff and relief workers in the field. In addition, a review of case files of relief project management and the perusal key decision guideline and evaluation reports are also included in the material.

## THE CONCEPTUAL FRAMEWORK IN DECISION MAKING

Most decision making models are depicted in the politics as usual, simply at peace times. As indicated in the literature, decision making is formed by multiple factors and variables. For example, in their seminal field-work book, Grindle and Thomas (1991) have exemplified explicitly these factors in their case studies. They indicated that the external circumstances in which decision makers are situated form their perception. This crisis-driven perception makes a big difference in how critical decisions are made. On the other hand, the decision makers may have personal orientation to the crisis that is shaped by their ideology, training background, political commitment, rhetoric issues, and prior experience.

To elaborate how perception of crisis decision-making is formed, I develop a conceptual framework. Here, as shown in Figure 1, the time when decision makers receive the proposal of policy, as I define it, is the decision starter (DS) and the time when decision of preferred policy is made is the decision endpoint (DE). Decision flow is situated between DS and DE. These two plausible factors can be extensively used to illustrate “what” questions in the decision flow, but they are not capable to contribute to causal explanation of how perception is shaped from DS to DE in the decision flow. This framework is trying to answer the “how” questions.

At the beginning of perception formation at the DS point, comes the most two important determinants that, across the decision literature, form the motif of the strategic thinking along the decision flow. The first one is the knowledge of decision makers toward the crisis (Woll, 2007). The more relevant and timely knowledge the decision makers are equipped with, the more likelihood they have to formulate strategic choices towards changed circumstances in the decision flow.

The more information the decision makers can control, the more accurate indicators they can establish for future manipulation. This is a strategic move for decision

makers because once they build the assessment into its decision making, assessment being the manipulative variable, forming the high possibility of measurability, so that they can know how much they have or have not achieved at the end.

The other is the change of institutional context following the crisis compared to earlier decisions (Forester, 1984). The change in context forces the decision makers to address the reactive changes, or make the planned changes. The contextual change also gives decision makers a legitimized authority to increase the scope of responsibility and the span of control in the decision flow. Those who favor the adoption of particular contextual change often strive to establish a sense of urgency in order to enhance the possibility that significant action will be taken. Both determinants imperatively illustrate how decision makers are capable to perceive of, and well situated during, the critical event. However the framework is yet to contribute to our understanding of external circumstances. We now need to add on Lewin's Force Field Analysis framework and adopt Pawson's model of realist causal explanation (CMO model, that is, Context, Mechanism, Outcome), decompose those factors, and thus categorize them into mechanisms of driving forces and restraining forces, embraced by policy subsystem context, along with the decision flow towards an outcome of strategic decision (Lewin, 1943; Pawson, 2006).

In the conceptual framework, the driving forces are to facilitate and support decision makers to shape perception of crisis decision-making. They may, as more and more driving forces or restraining forces join in the decision flow, turn perceived threats to opportunities, or the other way round. The driving forces can be understood by three accounts. The first two focus on the consultative and participative gesture that decision makers can impose on forming their perception against crisis. The last, but not least, emphasizes the capacity of a decision maker to translate his knowledge and to cope with contextual change.

First, policy adoption and execution of collective decisions are invariably related to policy cooperation (Weimer and Vining, 2004). While it is impossible to meet every stakeholder's needs, decision makers keep the mentality to firstly involve those potential affected parties to have their participation in the decision-making process or co-optation in the decision committee.

Second, a good decision maker plays a role of policy mediator by bringing together diverse representatives to listen to one another's concerns against the crisis, to learn about changing situational contingencies, and to negotiate consensus agreements on courses of action that they can then implement (Lai et al., 2009; Susskind, 1999). This is also what Forest advocates as ‘mediated consensus building’ to address the importance of development and implementation of public policy (Forester, 1984). It is true that the more participatory and more collaborative approaches to public policy making are, the

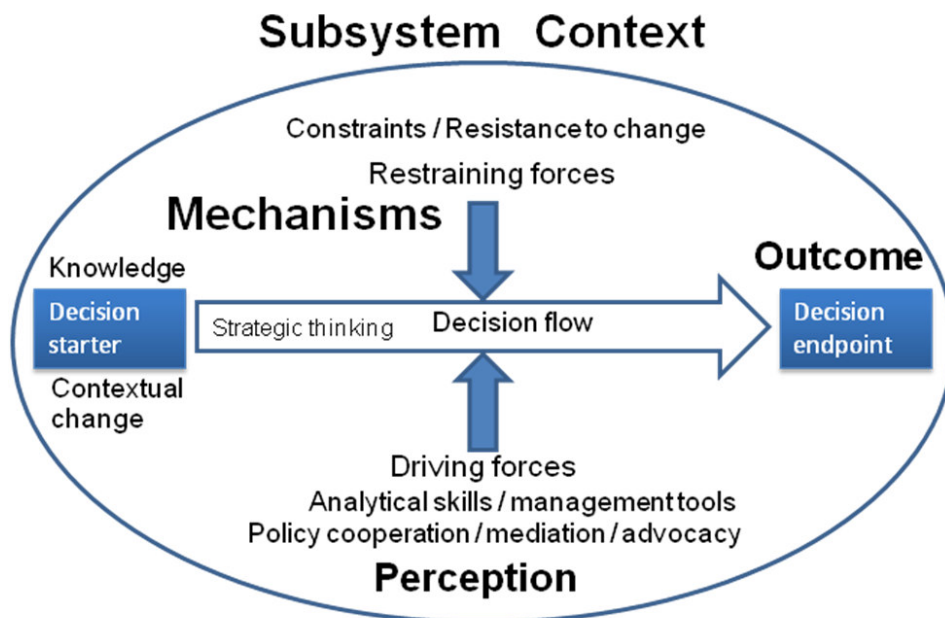


Figure 1. Conceptual framework of decision making.

more government can enhance its legitimacy and the more long-term costs of collective action can be reduced (Moran, Rein, and Goodin, 2006).

Third, decision makers in a sense behave like policy analysts. They are greatly influenced by the nature of their relationships with, and the roles played by, their constituencies in the political process (Weimer and Vining, 2004). In other words, a strategic decision maker plays a role of policy analysts, an effective producer and consumer of policy analysis. Though difficult and controversial in conducting research, cost-benefit analysis for example among other analytical skills serves as a management tool, where applicable, to help guide, the decision-making process (Fischer, Miller, and Sidney, 2007).

The restraining forces are pushing factors that jeopardize the chances of making a quality decision in the crisis. These negative forces shape perception of decision makers towards non-decision. We may decompose the restraining forces generally in two ways.

First, decision makers in the decision flow invariably face the problem of scarcity of resources. They need to compete with others, if not through cooperation or mediation, to maximize their benefits and common interest among their constituencies before the deadline of their political commitment, or the end of their legal terms. As a result of constraints with regards to material, financial, manpower, or time, the perception of decision makers is shaped as such.

Second, there are many reasons that decision makers and the whole organization are resistant to change or take further action. As a result, non-decision or maintaining the status quo becomes the decision out-

come. Those who involve the decision making may have fear of the misunderstanding of the policy, or just base on their own self-interest. In this case, even chances of conversation, bargaining, and mutual gains negotiation are present, it may not be easy to institutionalize consensus-building techniques in the public policy-making arena because of resistance from public officials who fear their authority be substituted by government legitimate practice or professional neutrals (Moran, Rein, and Goodin, 2006). This sabotages the course of action that generates agreements, meeting the interests of all the stakeholders involved.

Under the circumstances of driving forces and restricting forces, how can decision makers leverage their knowledge and change in the institutional context to make things happen? Or to be practical, how can make such innovative conceptual framework operationalize in the event of crisis? Here, the author exemplifies the framework by introducing a case study.

#### AN APPLICATION OF THE CONCEPTUAL FRAMEWORK IN DISASTER RELIEF

The Asian Tsunami in December 2004 embarked an important moment for the Singapore Red Cross Society (SRC), as the major voluntary welfare organization (VWO) in Singapore. The unprecedented scale of the disaster and outpouring deluge of charity with the challenges therein obliged the SRC to redefine its traditional administrative role and core mission of humanitarian assistance and adopt a significantly different model of project management in disaster relief from what the SRC

has previously been accustomed to.

### **Change of institutional context**

The 2004 Tsunami disaster presented the SRC with a new challenge of an entirely different order than it had been hitherto accounted for. The mission of the SRC is dedicated to protecting human life and dignity, relieving human suffering and responding to emergencies. Prior to the Asian Tsunami, the SRC predominantly focused their efforts on the immediate relief of disasters, by directly providing medical and humanitarian assistance. A useful analogy from the medical field would be "traumatology", where the critical condition of the "patient" is stabilized and then the patient is handed off to local authorities and other institutions for post-trauma care and rehabilitation. The magnitude of the earthquake and tsunami was such that in some areas. The outpouring of support from Singaporeans was also unprecedented. The SRC had raised donations amounted to S\$88 million for Tidal Waves Asian Fund (TWAF) to proffer relief efforts to Tsunami victims.

### **Building on professional knowledge**

To enhance the standing in the international Red Cross Movement, the SRC leader has to raise the level of Singapore's and Taiwan's image globally as responsible and compassionate societies and have achieved through reaching out to provide humanitarian relief to countries affected by natural and man-made disasters and playing an active role in meeting the objective of the Red Cross movement. The relief work has presented and acknowledged the leading role in Red Cross Society for long term risk reduction and preparedness in the field of humanitarian assistance. This has entitled SRC trustful professional images along their fabulous track record in humanitarian assistance that all legitimized the SRC to take charge of the charity donation. For example, the SRC utilized its previous command model for international rescue mission in 2001 Gujarat Earthquake for 2004 Asian Tsunami.

### **Shaping perception with policy cooperation**

To strategically mobilize and leverage the values to make a quality decision in face of Asian Tsunami reconstruction, the SRC chairman took the lead to formulate perception with policy cooperation by moving the adopted policy from a governmental agenda to a public and societal collective concern. For example, under the operational framework of the ad hoc relief construction committee (the Committee), the policy-making and regulatory roles are uncoupled from the service delivery and implementation roles. Critically, the Committee "contracts out" service

delivery and implementation to partner VWOs and only retains approvals for projects, provision of funding and performance measurement.

Ultimately, policy cooperation in the event successfully links strategic thinking and post disaster reconstruction policy makers in the participatory process of decision making and policy implementation. This approach on one hand recognizes that the SRC itself does not have a high level of expertise in reconstruction and rehabilitation and expertise in implementing specific housing, education, health, etc. projects in the target countries. But relying on policy cooperation with other professional relief agency, the SRC has smartly combine voluntarism and professionalism in disaster relief.

### **Shaping perception with policy mediation**

In the process of policy mediation, the SRC leader disseminates the perception of crisis decision-making by engaging and supporting the participation of diverse individual stakeholder. This helps to move through and develop a process that proceeds in a series of stages in which comprise of conflict assessment and, through convening stakeholders, constituting a deliberative process, fact-finding and learning, and negotiating agreements that commits them to future action. Two examples illustrate their efforts in policy mediation.

First, the SRC at that time set the priorities immediately to the public and the victims are that (i) relief projects are to be targeted to the needs of local communities and (ii) funds for the projects are to be appropriately accounted for. To ensure that those priorities be met, the SRC embraces partnerships with its counterparts; VWOs and NGOs, intergovernmental departments, and other civil society groups. The project evaluation process more or less indicates how the SRC assists other relief agencies to achieve better funding and outcomes.

Second, according to the project management for disaster relief, the SRC chairman has established two professional teams to mediate among different players – Portfolio Management Team (PMT) and Project Support Team (PST), to approve projects and decide on funding, and to support the decision-making of the PMT as well as supervising the implementation of the projects. With assistance of PST and PMT, a quality decision is more secured upon relational ties with the commitments of stakeholders, and more ascertained in shared perspectives on contentious issues in disaster relief.

### **Shaping perception with analytical skills and management tools**

In such an unprecedented scale of disaster, the SRC relies much on policy analysts and technocrats in selecting the right relief project, the right contractor, and

tracking the project in a seamless way. Such perception can be identified by their adoption of a corporate project management due to its comprehensiveness towards crisis needs that are facilitated by analytical skills. In their project management system, information processing, putting perceived social problems in context, better prediction and confidently evaluate consequences of alternatives, political/organizational behavior, understanding of ethical framework, exit strategy and sustainability issues are all as important. These key areas are categorized in the following dimension in a "project lifecycle phases", namely: (i) project initiation, (ii) project evaluation, (iii) project planning, (iv) project tracking and reporting and (iv) project closeout.

Since the SRC in the post Tsunami relief serves as a centralized coordinator of relief operations, the organization has more access to better disaster-related intelligence. This centralized role situates the SRC in a better position to estimate and rank relief priorities based on local needs. In this role, not only will the SRC coordinate relief operations, its skill and capacity also have the greatest impact on the overall relief operations.

### **Shaping perception to cope with constraints**

The project management has carried out the spirit of the SRC chairman's inspiration. For example, it requires the Singapore contractors to find local partners and identify areas of cooperation between contractors and local communities. The SRC stipulates that prospective VWOs take on local partners to ensure that project outcomes more accurately reflect the needs of target communities. From the sample project case files, local engineering supervisors are taken on board as project managers on the ground. This is to ensure that the projects not only address the needs of local communities but also implemented effectively on the ground. With local partners as interlocutors, administrative red tape reportedly is reduced as well.

The PST plays the key role to screen the applicants and make recommendations to help those VWOs and NGOs better propose (or package) their projects before they are approved by the Committee. The SRC even held several workshops to educate local VWOs to better structure their proposals if their ideas were brilliant but details were not in a good shape.

### **Shaping perception to cope with resistance to change**

Under the masterplan, "the TFRC's mission is to establish the structure, create the processes and implement the practices necessary for effective management of the Singapore Red Cross Tidal Waves Asia Fund." Given our discussions with SRC officials, "effective management" of the fund implied two objectives: (i) to ensure cost-effective program outputs and (ii) to ensure that

funds are properly accounted with no suggestion of misappropriation.

### **Decision outcome**

The decision of adopting a corporate project management is an innovative and progressive response to the challenges posed by the scale of the tsunami disaster and the huge outpouring of donations from Singaporeans. This is the first time in Singapore that a voluntary welfare organization references a private firm's business strategy to manage the public money. Obligated to move from traditional disaster relief toward reconstruction projects, the comprehensive and structured process helped the SRC in ensuring useful outputs and high accountability from the use of TWAF. The then leader of the SRC has been successful in shaping the perception of urgency and implement the relief work in an effective way. The strategic management embedded in the perception of crisis decision-making has made a remarkable performance of relief work on the ground. In 2007, among the numerous housing contractors their excellence of work has been awarded as the best quality and most efficient by Rehabilitation and Reconstruction Agency for the Regions and Communities of Nanggroe Aceh Darussalam and Nias (Table 1).

The primary goal of this platform is to mitigate the effects of disasters, to provide accurate relief assessment on the ground, to provide training for disaster relief teams on a regular basis, and to allocate and mobilize relief aid. Data from this global information flow platform is important in relief work because connectedness creates opportunities for 1. knowledge sharing and the targeting of aid or expertise; 2. private transfers of information and resources that are not evidenced in the mainstream literature; 3. peer-to-peer organizational relief and support beyond traditional donor networks.

### **Conclusion**

It is necessary and essential to critically receive why and how perception of decision makers is important in the discourse of policy making. Without decomposing what decision makers perceive of their circumstances, it is almost always difficult to analyze the reasons behind the adoption and pursuit of major changes in public policy, and we can only explain part of the dynamics and mechanics of the time when decisions are made.

Under the circumstances of contextual diversity, equating public policy with the actions of governments defines a subject whose boundaries are often hard to specify and whose scope varies not only from one society to another but also over time within the same society. By carefully observing how subsystem behaves around the decision makers further clarifies tendencies towards atypical decision making involving a significant break

**Table 1.** List of NGOs that build houses in West Aceh Indonesia.

NGO	House target	Achievement
Habitat For Humanity Indonesia	1.439	1.439
CRS (Catholic Relief Service)	2.386	1.508
The Salvation Army	1.250	750
World Vision	1.536	721
KKSP	702	420
Islamic relief	445	345
SOS Germany	322	322
Buddha Tzu Chi	1.100	366
Tearfund UK	335	208
Caritas Switzerland	1.271	139
SHEEP	114	114
Japanese red cross	437	261
Rekompak	445	309
Oxfam	18	18
ADB (Asian development bank)	500	-
Spanish red cross	400	9

Source: BRR West Aceh Report as of 23 August, 2007

from the past in terms of the overall policy goals, the understanding of public problems, and their solutions, and the policy instruments used to put decision into effect (Kenis, 1991; Liefferink, 2006; Mortensen, 2007; Menahem, 1998, 2001). This underscores the importance of subsystem in which decision makers are situated. Different policy subsystem context shapes different perception of the decision maker in face of crisis.

To understand how quality crisis decision-making is processed, the empirical case suggests to enhance driving forces and to contain restraining forces to shape perception of, but not limited to, decision makers. Identifying the characteristic decision making strategic thinking in the decision flow encompassed by subsystem, analysis of the driving and restraining forces allows the establishment of a baseline against which change can be measured. Analyzing the decision making in terms of these competing forces aids in the conceptualization of these fundamental dynamics and facilitates their analysis.

This paper comes up with a conceptual framework to help explain how perception is shaped. Realizing perception of decision making is strategically composed of knowledge of decision makers and change of institutional context within which they can exercise the legitimacy to make decisions, decision makers may have more confidence in leveraging the trade-off among various policy styles in policy network

## REFERENCES

Braybrooke D, Lindblom C (1963). *A Strategy of Decision: Policy Evaluation as a Social Process*. New York: Free Press of Glencoe.  
 Fischer F, Miller G, Sidney M (2007). *Handbook of Public Policy Analysis: Theory, Politics, and Methods*. Boca Raton: Taylor and

Francis.  
 Forester J (1984). Bounded Rationality and the Politics of Muddling Through. *Public Administration Rev.*, 44(1): 23-31.  
 Grindle M, Thomas J (1991). *Public Choices and Policy Change: The Political Economy of Reform in Developing Countries*. Baltimore: Johns Hopkins University Press.  
 Holzner B, Marx JH (1979). *Knowledge Application: The Knowledge System in Society*. Wellesly, Mass: Allyn and Bacon.  
 Howlett M, Ramesh M (2009). *Studying Public Policy*. Oxford: Oxford University Press.  
 Kenis P (1991). The Pre-Conditions for Policy Networks: Some Findings from a Three Country Study on Industrial Re-Structuring. In Marin and Mayntz, 1991: 297-330.  
 Kingdon J (1997). *Agendas, Alternatives, and Public Policies*. New York: HarperCollins.  
 Lai AY, He AJ, Tan T, Phua K (2009). A Proposed ASEAN Disaster Response, Training and Logistic Centre Enhancement Regional Governance in Disaster Management. *Transit Stud Rev* 16: 299-315  
 Lewin K (1943). Defining the 'field at a given time.' *Psychol. Rev.*, 50(3): 293-310.  
 Liefferink D (2006). The Dynamics of Policy Arrangements: Turning Round the Tetrahedron. In Bas Arts and Pieter Leroy, eds, *Institutional Dynamics in Environmental Governance*. Dordrecht: Springer, 45-68.  
 March JG, Olsen JP (1994). *Institutional Perspectives on Political Institutions*. Paper presented to the International Political Science Association, Berlin.  
 Menahem G (1998). Policy Paradigms, Policy Networks and Water Policy in Israel. *J. Public Policy*, 18(3): 283-310.  
 Menahem G (2001). Water Policy in Israel 1948-2000: Policy Paradigms, Policy Networks and Public Policy. *Israel Affairs*, 7(4): 21-44.  
 Moran M, Rein M, Goodin R (2006). *The Oxford Handbook of Public Policy*. Oxford: Oxford University Press.  
 Mortensen PB (2007). Stability and Change in Public Policy: A Longitudinal Study of Comparative Subsystem Dynamics. *Policy Studies J.*, 3 (3): 373-94.  
 Pawson R, Tiley N (2006). *Realistic Evaluation*. London: Sage.  
 Ramesh MAE (2009). *Bringing the Public Back into Public Services*. Routledge.  
 Rochefort DA, Cobb RW (1993). Problem Definition, Agenda Access, and Policy Choice. *Policy Stud. J.*, 21(1): 56-71.  
 Susskind L, McKearnan S, Thomas-Larmer J (1999). *The Consensus*

Building Handbook: A Comprehensive Guide to Reaching Agreement.  
Sage Publications  
Weimer D, Vining A (2004). Policy Analysis: Concepts and Practice.  
Upper Saddle River: Prentice Hall.

Woll C (2007). Leading the Dancer? Power and Political Resources of  
Business Lobbyists. *J. Public Policy*, 27(1): 57-78