

Crisis Management and Scenarios

the search for an appropriate methodology

Discussion paper, revised 30 October 1995

for

Directie Brandweer en Rampenbestrijding, Ministry of Home Affairs, the Netherlands

from

Barbara J. Heinzen, PhD

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SUMMARY

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Introduction

All governments have a responsibility to their citizens to manage crises that threaten the safety and security of their societies. In meeting that responsibility, the Netherlands' government in May 1991 asked each ministry to embed crisis management in its overall policy thinking and placed the responsibility for co-ordinating crisis management thinking in the Home Affairs Ministry through the Fire Services Department of the Directorate General for Public Order and Safety.

In making these changes, the Ministry of Home Affairs defined a crisis as a serious disruption of the basic structures, or an impairment of the fundamental values and standards, of society. They also recognised that a crisis differs from a disaster in that it usually involves not one, but a series of events resulting in a extraordinary situation of diffuse origin. Furthermore, during a crisis, it will not be obvious what action is needed or by whom and -- more than in the case of a disaster -- there will usually be a clash of interests, potentially leading to conflict. Organisationally, decisions are made in a network of actors, working under intense time pressure with feelings of great uncertainty and considerable media attention.

In searching for a way to meet its crisis management responsibilities, the Ministry of Home Affairs decided to explore scenario methodologies. However, they soon discovered that there were two traditions which used scenarios: one which used scenarios in gaming exercises for crisis management and the other which used scenarios for long term strategic planning. Although both were called "scenarios", there had been little interaction between professionals in each tradition. This was regrettable as the management of a crisis can clearly affect long term strategic plans, while strategic scenario thinking can help to prepare for and possibly avoid some crises.

As the underlying tension between gaming scenarios which test an organisation's ability to respond to unusual events and strategic scenarios which consider policy issues was not easily resolved, this paper was commissioned to "provide a theoretical frame-work for co-operation and collaboration and sharing of expertise between those working with scenarios for strategic and business management, [and those working] with scenarios for crisis management and with scenarios for practice drills."¹ The work then developed as a search for an appropriate methodology which would help the Ministry of Home Affairs both to embed crisis management thinking in ministerial policy deliberations and to co-ordinate such thinking across ministries.

¹ See contract dated 7 September 1995, EB95/1965.

What Is A Scenario?

The first difficulty to address is one of language, as there is a confusion of definitions around the word “*scenario*”. First, “*scenario*” can be used to describe a particular story of future events, or it may describe a type of management exercise which uses such a story.²

Second, there are (at least) two types of management exercise in which scenario stories are used. One is referred to here as “Gaming Scenarios”, used to prepare for crisis or emergencies, and the other as “Strategic Scenarios” which are used in policy-making.

In “gaming” scenarios or simulations, a single event or hypothetical situation is simulated or played out in an imaginary game representing a relatively small fixed period of time -- usual a few hours or days. It is used to test and develop the responses of an organisation, or group of organisations, to unusual circumstances or emergencies, and to integrate crisis preparation into regular policy.

In contrast, “strategic” scenarios describe multiple futures within which an organisation may need to operate over a relatively long period of time -- usually 10-20 years. In this tradition, attention is focused on the external world and seeks to identify and understand the interaction of foreseeable trends with the major uncertainties shaping that world. Because these interactions may develop in unexpected directions, alternative stories are written to describe the differing evolutions and outcomes of present forces.

Similarities in the Two Exercises

There are a number of similarities in the goals of gaming and strategic scenario exercises. Both are used to create trust and shared language among people in an organisation. Both also seek to help managers understand the links between short and long-term time scales -- as decisions made in the short term will have long term consequences. Both exercises also seek to preserve and enhance the ability of managers to act and take appropriate decisions in difficult times. Both scenario traditions also seek to help people face the unexpected, and test underlying assumptions and organisational readiness.

There are also similarities in the methods used in both kinds of scenario exercises. Practitioners from both traditions tend to describe themselves as “facilitators” of the learning others are doing, rather than as planners or trainers imparting a truth to their clients. Both kinds of exercises also put scenario stories at the heart of the process, as a way of uniting analysis and expertise with imagination and intuition. This helps decision-makers to draw on the united strengths of their intellectual and emotional understanding of complex situations. For this to happen, scenario stories in both traditions need to be a) internally consistent, b) plausible (it can happen here), c) credible (it can be explained), and d) relevant to the organisation using the story or stories.

Finally, in both gaming and strategic scenario exercises, there are shared strengths and weaknesses. By and large, people involved in either type of exercise, enjoy the event and learn rapidly, creating a shared language for future use. However, in both cases, organising good exercises requires careful preparation that is often seen as expensive in time and money, especially where many people are involved. Similarly, neither exercise can clearly measure its impact on an organisation.

Differences in the Two Exercises

Despite these similarities, there are a number of differences. Gaming scenarios concentrate on the internal responses of an organisation, while strategic scenarios focus their attention on the external world surrounding the organisation. Time horizons are also different. In gaming scenarios, it is assumed that a crisis may happen tomorrow, while strategic scenarios always look somewhere in the distant future -- anywhere from 5-50 years away. The type of scenario story that is written may also be different. In a gaming scenario exercise, the story will be around particular systems, involving particular events, circumstances and accidents. Strategic scenarios, however, tend to study macro

² There is a third (and in my view, improper) use of the word “scenario” to describe a policy option. An example of such use might be, “There are three scenarios: we can raise taxes, or increase government debt, or look for ways to limit our spending.” More appropriately, this sentence should begin, “We have three options: we can raise taxes, ... etc.”

systems, looking for broad trends and major uncertainties. Because gaming scenarios are designed to influence the organisation's response to particular circumstances, they are best at changing behaviour. Strategic scenarios, however, are better at changing perceptions of the nature of the outside world and how it might evolve.

Underlying these differences are different attitudes towards uncertainty. Gaming scenario exercises seek to reduce uncertainty by using practice drills to train the responses made by the organisation -- "creating predictable behaviour in unpredictable circumstances". Strategic scenario exercises, however, enlarge uncertainty by writing multiple stories of how the future might unfold.

Experiments in the Ministry of Home Affairs

In their search for an appropriate methodology, the Netherlands Home Affairs Ministry has worked over the past 12-18 months to combine the merits of both traditions. Their first experiments have taken the basic model of a gaming exercise, but expanded its components to include features from strategic scenarios.

This has been the basis for two policy exercises organised in the past 12 months. The first was known as "A Harsh Winter" and involved about 30-40 people from four different departments: Economic Affairs, Health, Home Affairs and Transport. The second exercise was built around an "Out-of-Area Crisis" in which a neighbouring country to the EU suddenly experienced violent political unrest. This second exercise drew in about 60 people from five ministries: Foreign Affairs, Defence, Justice, Home Affairs and the Prime Minister's Office. In addition, there were two people from a leading newspaper and a leading television station.

Despite some criticisms, the formal evaluation of the "Harsh Winter" simulation concluded that participants felt they had gained new insights into the threats contained in this scenario and that they had been able to clarify their own -- and others -- duties and responsibilities during such a crisis. The evaluation of the "Out of Area Crisis" was somewhat less favourable. This was possibly due first, to unreasonably high expectations following the relative success of the preceding "Harsh Winter" exercise and second, to an attempt to do too much in too little time as the scenario story involved several competing crises coming out of a single train of events beyond the borders of the Netherlands.

Following their experience with these first two policy exercises, the Home Affairs scenario team asked for expert advice on their experimental work so far. There was a desire above all to clarify the differences between the two scenario traditions and to examine more closely how they might be integrated. A Round Table discussion was held in the Hague on 7 September 1995.

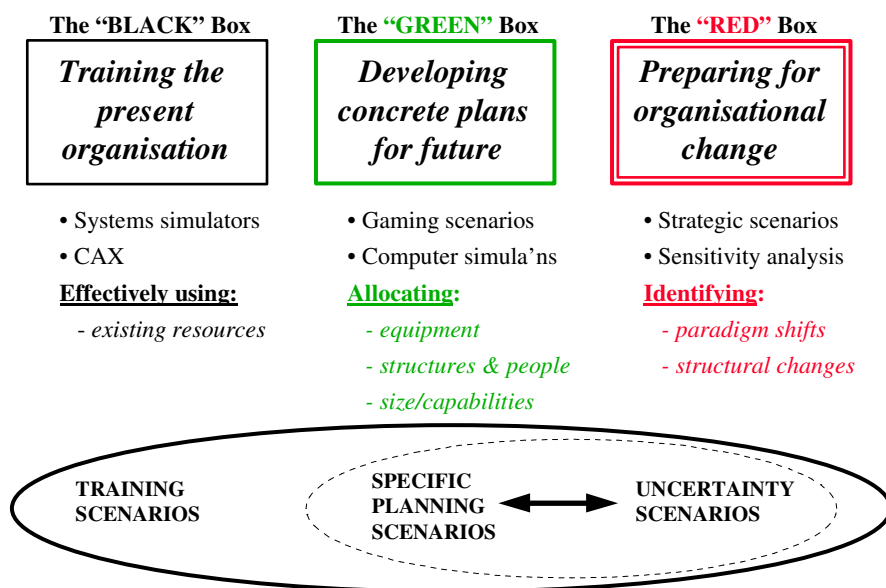
Advice from an Expert "Round Table"

The most important difference (among several others) identified by the Round Table is "Time". In a crisis the reaction time is so limited there is little or no time to think. In contrast, in strategy the reaction time is more generous and greater deliberation is an advantage.

Because of this difference in the nature of time, a gaming scenario exercise effectively prepares the present organisation to do a particular job, to react to a given emergency or crisis. Strategic scenarios, on the other hand, will alert the organisation to an altered working environment in the future and therefore act to change the organisation itself. Gaming scenarios are thus used to learn how to respond to a crisis, while strategic scenarios are used to identify and avoid a crisis, especially one that results from a lack of "fit" between the organisation and its environment.

During the discussion, Ragnvald Solstrand from the Norwegian Defence Research Establishment, presented an overhead slide titled "An Integrated Concept for the Use of Scenarios". Following the different coloured pens used in the diagram, there were three different organisational tasks and exercises identified: the black box, the green box and the red box.

An Integrated Use of Scenarios



The “black box”

The *black box* uses *training scenarios* to train people working in the present organisation on clearly agreed tasks so that maximum effective use of existing resources can be achieved. Flight simulators are an example of such training and black box exercises are some of the easiest to introduce and manage.

The “green box”

The *green box* uses *specific planning scenarios* in order to develop concrete plans for the future. Most organisational planning is “green box” planning. This is where decisions are made on allocating equipment and people to meet the purposes of the organisation. Many organisational processes are driven by “green box” decisions whose territory is defined by budgets and departmental size. In this box, gaming scenarios and computer simulations which test different uses of resources are very helpful.

The “red box”

Finally, there are the *red box uncertainty scenarios* (or “strategic scenarios”, in the language of this paper). These scenarios prepare for organisational change, based on identifying significant paradigm shifts and structural transformations in the world around us.

Dilemmas in the “green” and “red” box

Our discussion around this diagram concluded with an important observation about how organisations behave. Kees van der Heijden, with a background in strategic scenarios, argued that probabilities do not help managers think about uncertainty because once a high probability is given to a particular scenario being realised, the other possible scenarios tend to fall off the mental maps of decision-makers. If an organisation wants to maintain flexibility in an unpredictable world, it must keep in mind several different images of how that world will develop and avoid concluding one scenario is more likely to occur than another. Ragnvald Solstrand pointed out, however, that complete preparations cannot be made for every scenario. At some point managers have to say: this piece of equipment supported by these people will be placed in this particular place. In order to make that decision, managers inevitably decide which world they are most likely to face. All agreed that without the implicit use of probabilities, no decisions are possible in the “green box”.

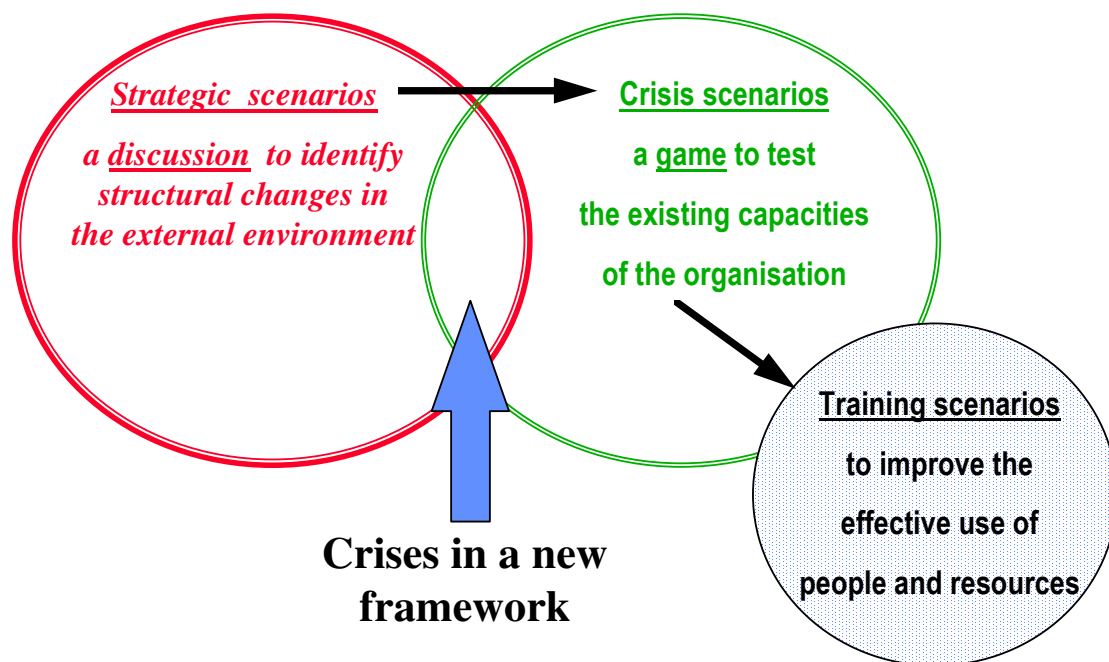
The Round Table also agreed that organisations are driven by the “green box”, where decisions about money and resources are made. Once the “green box” decisions have taken place, there is an inevitable tendency to alter the perception of what is likely, creating a “probability = 1” that the “green box” assumed future is the one the organisation will face. In short, the very real need to make a decision about the allocation of resources closes people’s minds to the possibility that other futures may also face them.

Given the risk that “green box” decisions will shut off perception of alternative futures, we then need to ask: How do we keep our eyes open? How do we keep the “red box” alive while working, practically, in the “green box” of every day decisions?

Principle Conclusions & Future Directions

The Round Table concluded that the scenario experiments which have so far been tried in by the Ministry of Home Affairs have been too ambitious. Using the language of this paper, the Home Affairs’ scenario team have sought to use “black and green box” scenario techniques to address “red box” issues. Instead, each exercise should be limited to achieving one goal: either test the capacities of the existing system in a time of stress, or alert people in that system to macro changes in their working environment, but do not try to accomplish both in a single event.

This helped the scenario team from Home Affairs to redefine its use of scenarios, as shown in the following diagram.



As this diagram shows, strategic scenarios can help organisations identify and adjust to structural change in the external environment, while gaming scenarios can test the existing capacities of an organisation to respond to an old or new kind of crisis. Where the two overlap is where new crises -- and games to prepare for them -- can be identified. The lessons learned from both strategic and gaming scenario exercises may then shape the kind of training given to people in the ministries involved.

General Conclusions

In the three-four years since the Ministry of Home Affairs began redefining its own role in crisis management considerable progress has been made. A new understanding of the nature of crisis has been accepted and the benefits of using scenario techniques have been more clearly understood.

Following their early, and largely successful experiments, Home Affairs now has a much clearer idea of what can and cannot be accomplished with different kinds of scenario tools. By pushing at the boundaries of what has been done before, the scenario team in Home Affairs has also contributed to clarifying the differences and complementarities in gaming and strategic scenario traditions. This work can now contribute to a finer appreciation of the “right tools for the right job”.

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Introduction

From civil defence to crisis management

All governments have a responsibility to their citizens to manage crises that threaten the safety and security of their societies. In Western Europe during the Cold War, much of this responsibility has been interpreted as preparing for “Civil Defence” against possible military attacks from the East. More recently, there has been a growing awareness that the resources available for civil defence can also be used during large-scale emergencies and disasters in peacetime. As this awareness grew in the Netherlands, the notion of civil defence gradually disappeared to be replaced by the idea of “crisis management”.

On 1 May 1991, the Netherlands government abolished the Ministry of Home Affairs’ Civil Defence Staff which had previously co-ordinated civil defence responses. Instead, it was assumed that each ministry would embed crisis management in its overall policy thinking. The responsibility for co-ordinating crisis management thinking at central government level was then retained by the Home Affairs Ministry, but transferred to the Fire Services Department in the Directorate General for Public Order and Safety.

Unique characteristics of crises

While the emergency services have long been organised to respond to local environmental, industrial or transport disasters, the concept of crisis management goes beyond the operational response to such emergencies and also goes beyond the military priorities of civil defence. Both kinds of events may be included, but a crisis only develops when there is also “A serious disruption of the basic structures, or an impairment of the fundamental values and standards, of a social system.” (KPMG, Nov. 92, p. 9).³ Crisis management is therefore a very broad function which may be required in a wide and unpredictable variety of circumstances -- accidents, extreme weather, epidemic disease, terrorism, wars, social unrest or unusual political or economic change in one’s own country or in neighbouring or allied countries.

There are a number of distinctive characteristics of a crisis. As noted in the very excellent KPMG report published in November 1992,

Every crisis is unique and arises only to a limited extent due to an accidental failing of systems and to a much greater extent due to the strategic uncertainty

³ The discussion in this section is based on *Crisis management: handling the unexpected, the unknown and the undesired*, November 1992, a report from KPMG Klynveld Management Consultants. This report was commissioned by the Directorate-General for Public Order and Safety of the Netherlands’ Ministry of Home Affairs as a contribution to the development of a new policy concept for crisis management.

about human behaviour and the behaviour of organisations. ... (KPMG, Nov. '92, p. 4)

This uncertainty is also reflected in a number of other characteristics of a crisis:

A crisis is different from a disaster in a number of ways. In the first place it usually does not involve one single event only, but a series of events (sometimes spread over a period of time) that, together, result in an extraordinary situation. In the second place it does not necessarily always involve a physical accident, although, of course, a crisis may be caused by a disaster ... [Third] A crisis usually has a diffuse origin; it is difficult to have an overall view of the macro factors directing a crisis. Finally it is not always obvious what action is needed and by whom; more than in the case of a disaster, a clash of interests may exist, which may lead to a conflict situation. (KPMG, Nov. '92, p.9)

In organisational terms, these characteristics mean that

- *decisions are made in a network which includes many actors*
- *decisions have to be taken under time pressure*
- *a feeling of uncertainty exists*
- *the media are on top of it (KPMG, Nov. 92 p. 10)*

In government it is important to recognise that

... crises are only rarely limited to one single government level and one single policy area ... (KPMG, Nov. '92, p. 4)

Furthermore, the KPMG report observes:

As long as no crisis occurs the (political) interest in crisis management is limited, based on the idea that "one cannot plan anything useful for an unexpected situation" and "it will not happen here". Ordinary daily problems demand so much attention that there is no time left to prepare for extraordinary situations. As a result possible crises are evaded and ignored until one is unpleasantly surprised; then the discussion is primarily governed by the question who is/are to blame. (KPMG, Nov. '92, p. 10)

The use of scenarios

The KPMG report was commissioned to review how crisis management could be co-ordinated when the responsibility for such management had been decentralised and the very definition of a crisis had become much more inclusive. One of the more important conclusions of that report were that

... co-ordination should not be enforced, but must be earned. (Emphasis added.) Without delivering added value it will be impossible to provide a credible and acceptable co-ordinating role during the preparations for crises. (KPMG, Nov. 92, p. 48)

Among other recommendations not relevant here, the KPMG report went on to suggest that the Ministry of Home Affairs consider using scenarios to prepare for crisis.

Home Affairs is to consider an exercise system that focuses on the special characteristics of crisis management and that, by means of stimulating simulation games, pays particular attention to boosting the mental flexibility and the quality of the decision-making process in times of crises. ... Home Affairs ought to develop expertise in the field of scenario thinking in order to be capable of offering other ministries a scenario methodology. (KPMG, Nov. '92, p.52 & p. 53)

What Is A Scenario?

A confusion of definitions

At this point, several confusions of definition arise because of the use of the word “*scenario*”. The first confusion comes from the fact that the word “*scenario*” can be used to describe a particular story of future events, or to describe a type of management exercise which uses such a story. As a result, people may say, “I liked your scenarios for Russia; they were very interesting and made me think about things differently.” That comment would refer to stories that describe different futures for Russia. At the same time, those stories may have been the outcome of an exercise involving both analysts and managers who together wrote the scenario stories and considered their implications for the organisation. Where that is the case, people may say, “We did scenarios for Russia or we went through a long scenario exercise on Russia.”

The second confusion results from the fact that there is more than one type of management exercise in which scenario stories are used. The comments in the previous paragraph would refer to scenarios that were written to help managers shape their organisation’s policy with Russia. However, another group might have said, “I don’t quite accept your scenario in which Hungary allows East Germans to cross into the West, but let’s test our responses all the same.” In this case, the scenario describes a particular crisis and is then used, in a very different kind of exercise, to test an organisation’s ability to respond to such a crisis.⁴

One name for two traditions

This confusion of language about scenarios became apparent when the Ministry of Home Affairs gathered together about 35 people to discuss the use of scenarios in crisis management. This meeting was held in Arnhem, the Netherlands, in November 1994. While everyone there knew that “scenarios” might refer to either stories or exercises, it gradually became clear that two different kinds of exercises were being described. Both are called scenarios and both prepare organisations to act in times of uncertainty. However, one exercise concerns policy development and the other tests preparedness for an emergency or crisis. During the seminar these two kinds of exercises were referred to as “Gaming Scenarios” (for crisis or emergencies) and “Strategic Scenarios” (for policy) to distinguish between them.

⁴ There is a third (and in my view, improper) use of the word “scenario” to describe a policy option. An example of such use might be, “There are three scenarios: we can raise taxes, or increase government debt, or look for ways to limit our spending.” More appropriately, this sentence should begin, “We have three options: we can raise taxes, ... etc.”

“Gaming” Scenarios

In gaming scenarios or simulations, a single event or hypothetical situation is simulated or played out in an imaginary game representing a relatively small fixed period of time -- usual a few hours or days. It is used to test and develop the responses of an organisation, or group of organisations, to unusual circumstances or emergencies, and to integrate crisis preparation into regular policy. As an organisational learning technique, it has been developed to assist the training of people in the emergency services and in the military where ‘war games’ postulate circumstances requiring a response from military personnel. The simulations not only test internal operating procedures, but train the individuals who will use them.

For example, Ragnvald Solstrand, one of the speakers at Arnhem, described a scenario used with the Norwegian Defence Establishment in which a Soviet submarine came to the surface in a Norwegian fjord. This scenario was dismissed as ‘unlikely’ by participants who nonetheless ‘played out’ the responses they would make to such an event⁵.

“Strategic”⁶ Scenarios

There is also, however, another scenario tradition which has been developed in strategic planning departments of large corporations and some public organisations. These “strategic” scenarios describe multiple futures within which an organisation may need to operate over a relatively long period of time -- in my experience usually 10-20 years. In this tradition, great attention is placed on identifying and understanding the interaction in the external world of foreseeable (or “pre-determined”) trends with the major uncertainties shaping that world. Because these interactions may develop in unexpected directions over the given period of time, alternative stories are written to describe the differing evolutions and outcomes of present forces. Once the stories have been developed, a more detailed discussion of how the organisation might respond to these different futures takes place. However, this rarely includes anything like the “gaming” scenarios described above.

The best known example of ‘strategic’ scenarios was described by Pierre Wack, head of Scenario Planning in Royal Dutch Shell during the 1970s and 1980s. In the early 1970s, before the first oil shock, he noticed that the rising demand for oil was increasingly going to be met by producers in the Middle East. However, he also reasoned that these countries would not necessarily be content to sell their oil at the prevailing low prices; at some point they would decide their oil was more valuable if kept in the ground. He therefore postulated three different ways in which the oil industry would be altered by new producer policies for managing and pricing oil production in the Middle East.⁷ These stories were then presented to senior management who were able to respond to the first oil crisis more effectively than the other oil companies caught by the same dramatic changes. Significantly, while Pierre Wack’s work, as published in the *Harvard Business Review*, is famous for its anticipation of a major change in the oil world, there is nothing in his published articles that describes how senior management actually responded to the first oil crisis when it occurred.

⁵ One year later, exactly those circumstances came about in Sweden, granting considerable credibility to the exercise.

⁶ Government agencies tend to refer to ‘policy’ & corporations to ‘strategy’ when considering fundamental long term issues. As scenarios designed for policy development have been used first in the corporate sector, they are labelled here “Strategic Scenarios”.

⁷ See two articles by Pierre Wack: “Scenarios: Uncharted Waters Ahead.” *Harvard Business Review* 63, no. 5 (1985):72-79 and “Scenarios: Shooting the Rapids.” *Harvard Business Review* 63, no 6 (1985): 139-150.

Contributions to crisis management in the Netherlands

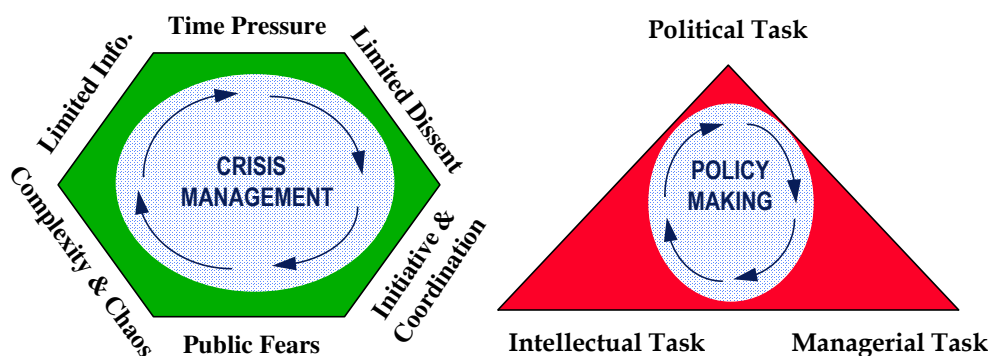
When the Ministry of Home Affairs began looking for ways to use scenarios to meet their new responsibilities for crisis management, they unwittingly began to draw on both traditions: gaming scenarios and strategic scenarios. However, apart from the discussion in Arnhem in November 1994, there has been little interaction between professionals in each tradition. This is regrettable since it was clear at the seminar that the management of a crisis can affect long term strategic plans, while strategic scenario thinking can help to prepare for and possibly avoid some crises. This paper was then commissioned to re-examine both traditions in light of their contribution to the crisis management co-ordination work of the Dutch Ministry of Home Affairs and to test whether the experimental work currently being done in Home Affairs is heading in the right direction.

Comparing the Two Scenario Traditions

Before comparing the uses of scenarios it is important to consider the nature of the tasks -- crisis or policy -- being addressed by scenario techniques. One can then examine how the scenario exercises have been designed to assist in those tasks.

Nature of the two tasks: crisis and policy

Differences between Crisis Management and Policy Making



Differences: crisis and policy

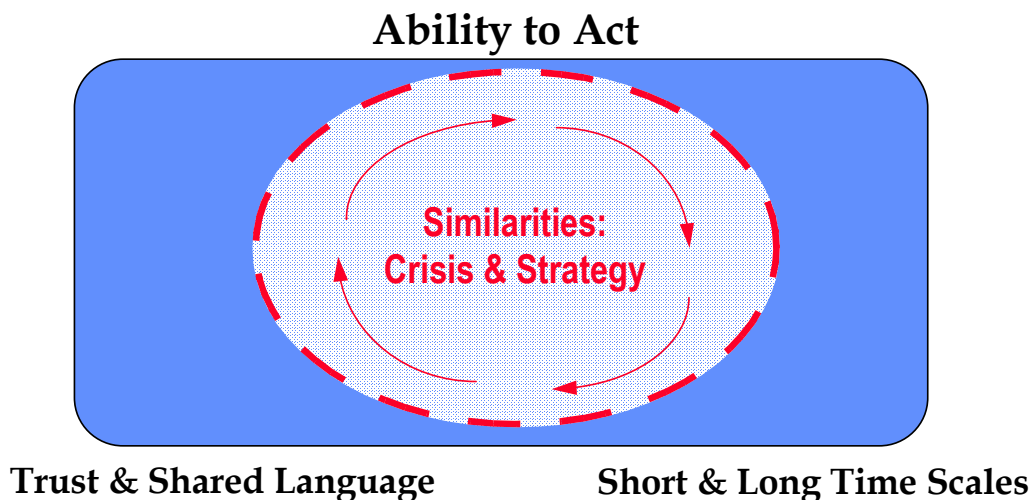
There are clear differences between crisis management and policy making. Policy involves three very distinct, interlocking tasks. First, there is the *intellectual task* of knowing what is the best policy to follow in a given situation. This is where studies are commissioned, expert opinion is sought and best practices elsewhere are examined and imitated. However, good research, ideas and plans that may make sense intellectually do not always make sense politically because one group or another suffers from the conclusions reached. Therefore, policy making is also a *political task*, requiring agreement among those groups affected by the policy. This is a task for the legendary smoke-filled rooms, the quiet conversations in a corner, or for public debates where different points of view are presented and tested. Even this is not enough, though, since agreement and sound intelligence will never create a successful policy if it cannot be implemented. Therefore, policy making is also a *managerial task*. Someone needs to understand what the policy means in terms of how people are trained, who works where, what they do every day and how they keep their records. In short, any policy is only as good as its manifestation in performance and behaviour.

An important characteristic running through all three policy tasks, is that they need -- and generally have the luxury of -- time for study, politicking and implementation. Time, however, is exactly what does not exist during a crisis.

Instead, in a crisis there is enormous pressure to do things quickly. Because of that *time pressure*, there is a tendency to *limit dissent* among those managing events. This may mean that the odd man out in a management team is not included in the crisis team. Even among sympathetic colleagues, a dissenting point of view may not be expressed on the grounds that its airing could delay a timely response at a critical moment. Lack of time also means that there is only *limited information* available and little time to fill gaps in one's knowledge or understanding. Crisis managers therefore rely instead on their own knowledge or on what is immediately to hand. The combination of limited information and time pressure heightens what is already a *complex and chaotic* situation, since crises are, by definition, events which have multiple origins and several unpredictable outcomes. This means that individuals or isolated groups may be required to take *independent initiatives*, while *co-ordinating* their actions with others, something that is not always easy if communications are limited or dysfunctional. Above all, because a crisis involves a "serious disruption of basis structures or an impairment of fundamental values and standards", *public fears* are heightened and volatile, increasing the pressure on all actors to respond with care.

Similarities: crisis and policy

In spite of these differences, there are also some important similarities between effective policy making and effective crisis management.



First, there is a need to *create trust and shared language*. In policy-making, the policies are usually carried out by people at a distance who need to be trusted to implement the policy that has been agreed. This trust is more easily achieved where those involved are confident that what they communicate is understood because words and phrases and ideas mean the same thing to all the people using them. Similarly, in a crisis, people may need to act at distance from each other because communications are cut off or very limited. At such a time, participants need to trust each other to respond appropriately and effectively. Where communications exist but are hurried or interrupted, the danger of contradictory interpretations can be limited by using a common language that is easily understood. As with policy-making, such shared language also makes trust easier to achieve.

Second, those handling policy and crisis are both working at the interface of *short and long-term time scales*. Policy makers are working in the present, but making short-term decisions which prepare for distant future events or have long-term consequences. For example, the decision to build a dam requires immediate investments, but will be part of a long term policy to manage water resources as part of the economy and ecology which depend on that water. Similarly, a crisis is an immediate phenomenon, but the way in which a crisis is handled can have enduring effects. Relief workers in Africa, for example, have learned that giving away food may alter local markets for food crops to the point where local farmers cannot compete with the subsidised food provided by the relief agencies. These farmers may therefore withdraw from food production, further reducing the self-sufficiency of the area.

Finally, managers responsible for either crisis or policy both need to preserve the *ability to act*. While the ability to act is seen as more crucial in a crisis, policies are effectively guides to action designed to avoid the pitfalls of passivity and stimulate a helpful pro-active response.

Different tasks; different scenario exercises

These differences and similarities in crisis management and policy making have shaped the use of scenarios to help managers prepare to handle a crisis or set a new policy direction. In order to understand how scenario practices have been affected, a more detailed examination of scenario exercises themselves is required.

Nature of the two scenario exercises

Table 1 offers a quick comparison between the two kinds of scenario exercises: “Gaming Scenarios for Disaster Management” and “Strategic Scenarios for Policy Management”. The table over-simplifies two quite subtle and often varied procedures (hence the slightly facetious title, “Pure” Differences), and relies more on early differences than contemporary common ground. However, it is an instructive comparison which will help us to identify how each can best be used in the Ministry of Home Affairs. We will first consider what these two methods have in common, and then look at how they differ.

Common ground - goals

In looking for the common ground, the first point of interest comes in comparing the “Origins” of both methods (first row) with the “Present Underlying Philosophy” (penultimate row) as described in the table. Both approaches clearly originated in a time when human action was viewed more mechanistically than it is today. At that time, it was assumed that with perfect training and perfect knowledge, most problems and crises faced by governments and organisations could be rationally and effectively managed. In many ways, today’s gaming exercises retain their faith in training for specific events. However, the events themselves and their consequences might be seen as having become more complex. For example, in his presentation at the Arnhem seminar, Barry Turner described what

seemed at first sight merely to be a traffic collision. However, one of the vehicles involved, a bulk tanker, was then revealed to be seriously damaged, and to have caused an extensive spillage of flammable chemical over both vehicles. Because the driver of one of the vehicles was trapped it became necessary to mount a prolonged and hazardous rescue procedure. Since the accident took place in an urban centre, evacuation procedures were also called for. At the same time, the spilt chemical was leaking extensively into the drainage system, leading both to an explosion in the

cellar of premises some distance away and to a major fire hazard and pollution alert as the chemical flowed into a nearby river.

Table 1: Gaming Scenarios v Strategic Scenarios: “Pure” Differences

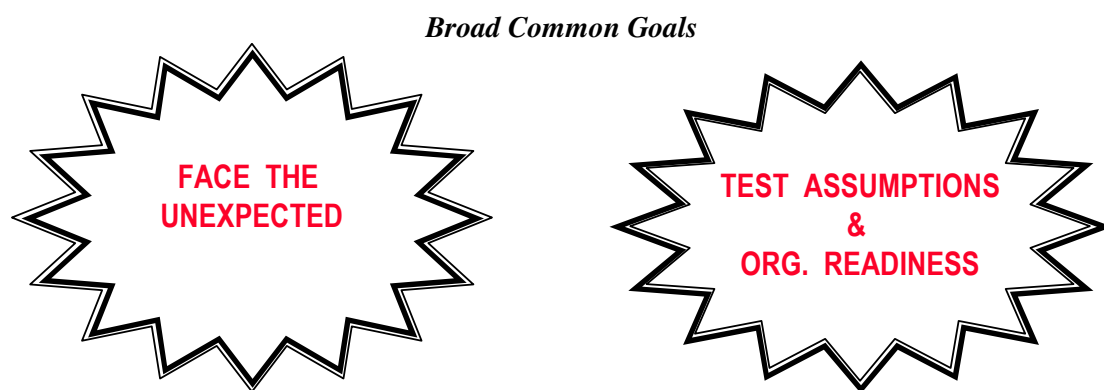
	Gaming Scenarios for Disaster Management	Strategic Scenarios for Policy Management
Earliest Origins	Operational drills preparing for military contingencies, natural disasters, industrial accidents	Forecasting for long range policy decisions and major investments
Initial Goals	Test operating skills & systems: “create predictable behaviour in unpredictable circumstances” ⁸	Alert senior managers to changes in the environment surrounding their organisations.
Nature of the Scenarios & Uncertainty	Single story of an emergency event or situation that has not been previously experienced. Operational training for <u>foreseeable</u> events.	Multiple stories (2-4) of alternative futures in broad social, economic and political terms. Train mental flexibility for <u>uncertain</u> events.
Principal Participants & Target Audience	<ol style="list-style-type: none"> Those who write the story, design and manage the game. (<i>simulation team</i>) Field operators who play the game to test their management of crisis. (<i>target audience</i>) 	<ol style="list-style-type: none"> Those who develop and present the scenario stories. (<i>scenario team</i>) Senior managers who use the stories in making strategic decisions. (<i>target audience</i>)
Methodological Steps (people involved)	<ol style="list-style-type: none"> Convince senior managers of the value of a scenario exercise. (<i>simulation team</i>) Decide the purpose of the simulation: what organisational abilities are to be tested? (<i>simulation team meets target audience</i>) Develop a convincing scenario story to describe a disaster or emergency situation. (<i>simulation team</i>) Design a simulation exercise, using that scenario story, to test the responses of the target group. (<i>simulation team</i>) “Play the game.” (<i>target audience + simulation team</i>) Debrief players and evaluate the lessons learned by the players and others during the game. (<i>simulation team + target audience</i>) 	<ol style="list-style-type: none"> Convince senior managers of the value of a scenario exercise. (<i>scenario team</i>) Identify existing assumptions or mental maps of the target group, usually senior managers. (<i>scenario team interviewing target audience</i>) Identify important trends, uncertainties and driving forces in the external world that challenge the current mental maps of managers. (<i>scenario team</i>⁹) Organise these factors into a small (2-4) number of scenario stories to illustrate alternative futures. (<i>scenario team</i>) Present these stories in a convincing fashion to senior managers. (<i>scenario team</i>) Work with managers on decisions, policies and investments in each scenario. (<i>scenario team + target audience</i>)
Present Underlying Philosophy	A collaborative <u>training</u> exercise to prepare for specific unusual events.	A collaborative <u>learning</u> exercise to prepare for broad future uncertainties.
Present Goals	Improve operations during a disaster or emergency.	Improve decision-making on policy and strategy.

⁸ Dick Schoonoord, Ministry of Defence, the Netherlands, Arnhem Seminar, November 1994

⁹ Increasingly, Steps 4, 5, & 5 of strategic scenarios involve scenario team and target audience working together.

Because this real incident embodied so many difficult and contradictory procedures, it became the basis for a gaming scenario developed at Birkbeck College in London.¹⁰ A similar appreciation of growing complexity also led those involved in early forecasting techniques to develop the use of multiple strategic scenarios to describe often complex interactions of several different trends. For that reason, many strategic scenario practitioners rely on flow charts and systems dynamics to explain the interaction of (for example) growth in global communications and growth in environmental pressure groups acting on an international scale.

Broadly speaking, this increasing complexity of events, leads to two goals that are shared in both exercises: the need to face the unexpected and test organisational readiness and assumptions.



These two goals are shared in both kinds of exercises and are considered by both groups of practitioners to be one of the principle achievements of any successful scenario process.

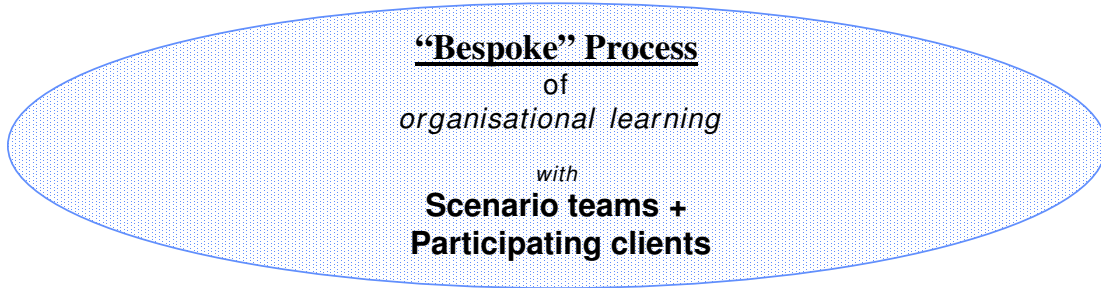
Common ground - methods

There is also important common ground in the relationships that has been established between the professionals who direct the scenario exercises and the clients who are meant to benefit from them. This reflects a significant shift that has taken place in both methods over the past 30 years as the distinction between the ‘expert advisor’ and the ‘practical manager’ has blurred. As shown in the row titled “*Methodological Steps*”, the simulation and scenario teams do not stand aloof from their target audiences. Instead, from the beginning, they actively involve senior managers in the setting of goals and identification of topics or situations to be studied. In the case of strategic scenario exercises it has become common for recently for managers to be involved in the development of the scenario stories themselves.

With this type of involvement, both groups of practitioners would describe their work as “customer-driven” and would probably describe themselves as “facilitators” of the learning others are doing, rather than planners or trainers who have a truth to impart to their clients. This focus is more than a mere fashion, as these two methods share another characteristic in their “*Present Underlying Philosophy*” and “*Present Goals*”: the desire to create a collaborative exercise that will help people to improve their group decision-making and organisational learning in unusual circumstances and uncertain times.

Because these are collaborative exercises, they are almost always “Bespoke” processes, tailor-made to fit the circumstances of the organisation involved and increase organisational learning.

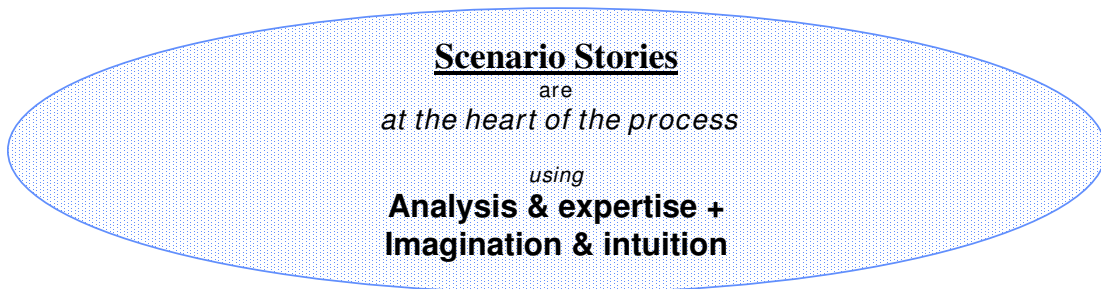
¹⁰ Barry A. Turner, “Scenarios in emergency response simulations” in *Reader Seminar: Scenarios for crisis management*, Crisis Management and Fire Service Directorate, 1995, The Hague, p. 38.



Thus, while broad rules and procedures can be applied in both strategic and gaming scenario exercises, the collaboration of scenario teams and participating clients ensures that the particularities of the organisation and its circumstances are reflected in the exercise and its outcomes. The critical stage at which this collaboration is defined comes in Step Two of “Methodological Steps” in Table 1. At the point, those who are organising a gaming exercise work with management to identify the organisational abilities which are to be tested. At the same point, the organisers of a strategic exercise interview senior managers to identify their existing assumptions or “mental maps” about the world around them. Only once this stage of work has been completed, can the scenario development begin (as a story for a game or a collection of alternative futures), since this step ensures that the exercise will reflect the concerns and assumptions of the organisation.

Common ground - scenario stories

There is another important similarity between gaming and strategic scenarios: in both exercises, the stories are at the heart of the process. Moreover, the stories are based on the integration of analysis and expertise with imagination and intuition. The need for analysis is clear: in policy one needs to ensure that the intellectual task has been met; in a crisis one needs to understand the origins of events and how to alter their progression. The need for imagination and intuition is less clear, but no less fundamental since it is based on the realisation that to engage people’s reactions, one must engage their emotional as well as their intellectual attention. Hence, the use of stories, rather than analytical presentations alone.



Finally, in both traditions, scenarios stories must be:

- Consistent**
- Plausible - *can happen***
- Credible - *can be explained***
- Relevant**

The consistency refers to stories that are internally consistent -- the pieces of the stories must make sense together. For example, if a gaming story includes an event in which a critical highway is blocked, then it cannot be miraculously unblocked a few paragraphs later without

some sensible explanation. Second, the stories must be plausible, as those who will use the stories need to believe that what is described can happen. For example, a “Harsh Winter” in Holland may seem implausible if many people believe that global warming means the Dutch canals will never again freeze over. But plausibility is strengthened if the story can be explained, so that the sequence of events has a logical origin in known facts or reasonable arguments. Taking the example of the “Harsh Winter” again, it can be argued that global warming also involves a complex reorientation of air and water currents leading to climate shocks, including unusually cold winters and violent storms as happened in the North-eastern United States in the winter of 1994. Finally, the best stories are relevant to the organisation they serve. Stories about future travel in outer space, for example, may be of interest to the writer, but would be of little use to someone interested in investing in an Indonesian newspaper business or to a health service in the Netherlands worrying about emerging viruses from the tropics.

With all of this common ground in goals, methods and the nature of scenario stories, what are the serious differences, then, between these two kinds of scenario exercises?

Significant differences

Most of the important differences derive from the fact that the nature of policy-making is different from the nature of crisis management, as discussed above.

Different Tasks = Different Exercises

<u>Gaming Scenarios for Crisis</u>	<u>Strategic Scenarios for Policy</u>
<ul style="list-style-type: none"> • Internal responses • Time: it can happen tomorrow • Particular systems: events, circumstances, accidents • Changing behaviour • Uncertainty reduced with training & practice drills • Scenarios as “AA Watch”*: in glove compartment 	<ul style="list-style-type: none"> • External world • Time: 5-10-20-50 year horizons • Macro systems: broad trends & uncertainties • Changing perceptions • Uncertainty enlarged with multiple scenarios of the future • Scenarios as a road map: sign posts, forks, turnings

We begin with what may seem a trivial point because it reflects an important difference of orientation. As already noted, in a gaming scenario exercise, the team asks its principal clients what organisational abilities are to be tested (Table 1, Step 2) and then looks for and develops a single scenario story that can be used in a game to challenge those abilities. By comparison, in a strategic scenario exercise, the team interviews managers about their assumptions concerning the world around them and its future. The team then develops multiple scenario stories that will challenge managers’ mental maps of the future working environment.

In both instances, the exercises begin with an internal focus on critical organisational skills or the working assumptions about the future held by managers. However, in the case of the gaming scenario exercise, the scenario story is used to test those internal organisational skills, thereby maintaining the internal focus. In the case of the strategic scenarios, however,

several different stories are developed in order to examine the external world. Only once the organisation's understanding of the external world has increased, does the work turn to the internal consequences of what has been learned (step 6, column 2, in Table 1).

Gaming exercises, therefore, concentrate on internal responses, while strategic scenarios concentrate on the shifting nature of the external world. This reflects, in part, a difference of time horizons. People preparing for a crisis know that one can happen tomorrow, without warning. Policy-makers, however, have their eyes fixed on some distant future date -- anywhere from 5-50 years away. Because a crisis might happen tomorrow, the organisation that is being tested is the one that exists today, in all of its tiny details. To make the test effective, therefore, gaming scenarios are developed around the particular -- those idiosyncratic systems that drive accidents, events and the haphazard circumstances of a crisis. Strategic scenarios, on the other hand, look at macro systems, studying broad trends and major uncertainties in any one system or the interaction of several systems. Because the time frame is different, and the organisation to be tested is the one that exists today, one can argue that gaming scenario exercises are designed to change the behaviour and responsiveness of people, while strategic scenarios -- with their broad future perspective -- are designed to change their perceptions and attention.

Underlying these differences is another one: different attitudes towards uncertainty. Those who design gaming scenario exercises seek to reduce uncertainty by using practice drills to train the responses made by the organisation -- so that one might have confidence in the ability to handle the crisis or disaster. Strategic scenario exercises, however, enlarge uncertainty by writing multiple stories of how the future might unfold. One might use the analogy that strategic scenarios function as a road map to help the organisation understand where it is going, while gaming scenarios are used as a kind "AA Watch" provided by the automobile association to keep in the glove compartment for help in an emergency.

This last difference suggests contradictory underlying assumptions. In the case of gaming exercises there is a working assumption that, with sufficient practice, we can prepare for particular unusual events and crises. However, the assumption in the case of strategic scenarios, is that that we cannot prepare for specific events because there is too much uncertainty about the future; we can only train our perception.

Instinctively one rejects the possibility that both propositions are right. Yet, that is perhaps the only conclusion one can make: both assumptions are right, but reflect different organisational needs and circumstances, as discussed below in the concluding section titled "Observations from a Scenario Round Table."

Complementary strengths and weaknesses

The comparison in Table 1 points up some complementary strengths and weaknesses in the two traditions, as summarised in Table 2. Simulation exercises are very strong in operational training and changing the behaviour that takes place during a crisis. According to one source "firms with no crisis management plans took two and a half times longer to get through a crisis than those who had a plan. Firms that have used interactive simulations would expect similar benefits in terms of savings in time, money and resources when faced with crisis."¹¹ Scenarios looking at the long term future are less good at actually training people to respond to a particular crisis, and frequently when faced with three very different descriptions of the future working environment, managers throw up their hands and ask, "but what am I to do to prepare for such different worlds?"

¹¹ Simon Booth, "Interactive simulation and crisis management training: New techniques for improving performance" in *Contemporary Crises* 14 (1990) p. 381-394

Table 2: Complementary Strengths & Weaknesses

	Exercises & Games for Disaster Management	Scenarios for Policy/Strategic Management
Unique Strengths	Strong operational training for emergency response <i>Changing behaviours</i>	Strong awareness of changes & picking up warnings of change <i>Changing perceptions</i>
Shared Strengths	People involved in the exercise enjoy the event & learn very rapidly. The exercise creates a shared language for responding to the unexpected.	
Unique Weaknesses & Common Complaints	Weak understanding of the long term implications of emergency responses. Weak identification of signals of possible emergencies. <i>“That’s not at all likely!”</i>	Weak rationale for deciding what to do now when the future is uncertain. Weak at creating confidence in a given response or decision. <i>“But what am I to <u>do</u>?”</i>
Shared Weaknesses	Organising the exercise requires careful preparation. The training can be seen as ‘expensive’ in time and money, especially as more people participate. There is no clear measure of impact on the organisation.	

Gaming exercises are less good, however, at increasing awareness of possible changes in the broad working environment and in picking up early signals of such change. For that reason, when first faced with a proposed gaming exercise, many participants throw up their hands and say: “But that is not likely at all!” R. Solstrand discusses this at length in his article, referring to it as “fighting the scenario”. He argues that for a gaming exercise to be effective, participants must not know the nature of the scenario story they will face.¹² And yet, practitioners of scenarios for policy, would argue that when it comes to anticipating and accepting the unexpected, multiple scenarios help prepare people to accept both -- especially where managers have helped to develop the stories. Moreover, by inventing several different stories of the future, their own perceptions of the world around them change, and they are more aware of possible crises that might arise.

Despite their differences, both traditions are good at involving a wide number of people in the exercise and providing an environment in which organisational learning is rapid and

¹² Ragnvald H Solstrand “The use of scenarios for studies of crisis management in the military sector” in *Reader Seminar: Scenarios for crisis management*, Crisis Management and Fire Service Directorate, 1995, The Hague, p. 56.

enjoyable. Both exercises also create a shared language which participants can later rely on to communicate quickly in responding to the unexpected. Against those strengths, however, both exercises require careful preparation, can be expensive in both time and money, and in both cases it is difficult to define and measure a successful outcome.

Experiments in the Ministry of Home Affairs

Given these complementarities, the Netherlands Home Affairs Ministry has worked over the past 12-18 months to find ways that the merits of both traditions might be combined. In developing their work, they have been operating with a clear recognition of the shared weaknesses of both techniques (the need for careful preparation, time, and money, with few clear measures of success), while building on the shared strengths -- the creation of shared language and a memorable, enjoyable learning experience.

Their work has been experimental and it is still an open question whether any single hybrid methodology might be developed. However, that has been the ambition: to find a method that integrates gaming exercises with strategic scenarios in order to link crisis management thinking with policy discussions.

The Challenge Facing the Netherlands Ministry of Home Affairs

When the KPMG report recommended that Home Affairs take up scenarios, the authors were thinking in terms of gaming exercises based on a single scenario story.¹³ However, not realising that the same word, “scenario”, was describing different methodologies, the subsequent work to develop scenarios drew on both gaming and strategic scenario exercises. In doing so, the Ministry was responding to some new complexities in our present times and seeking to achieve quite specific goals to manage those difficulties.

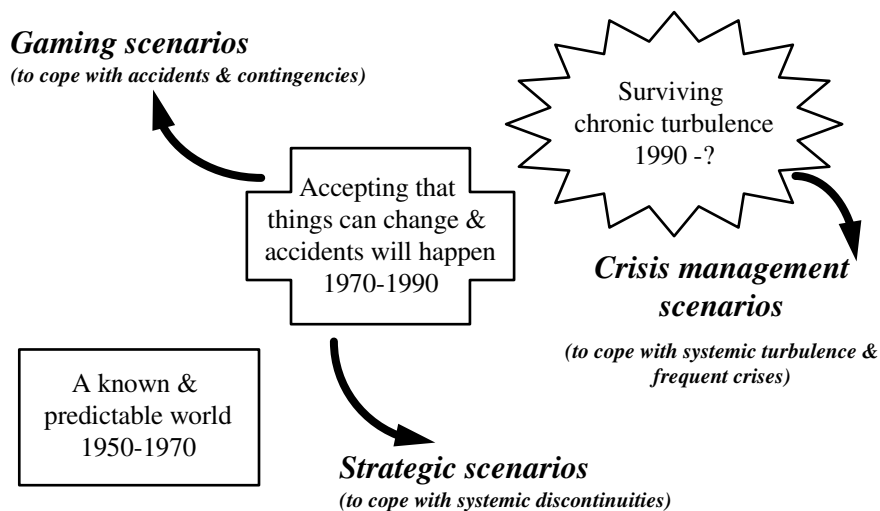
New complexities

The crisis management scenarios which are evolving in the Ministry of Home Affairs are not simply a response to the end of civil defence. They are also a response to the problem of governance in an increasingly complex society where the pace of change is rapid and unpredictable. In this task, the Ministry of Home Affairs is in an unenviable position: central government, especially in Western Europe, is still seen as the provider of last resource, the organisation most responsible for the safety and well-being of the general public. And yet, this responsibility comes at a time when national governments are increasingly subject to international flows of trade, money, migrants, climate and disease that are quite beyond the abilities of any single nation state to manage them.

Taking the post-World War II period as a whole, we can imagine three different ages, as shown below:

¹³ Interview with Tom Goemans, of KPMG Klynveld, 14 February 1995.

Uses of Scenarios



The first period, in the 20 years after World War II, was a time when there was a sense (justified or not) of living in a known and relatively predictable (if not always stable) world. Beginning in the late 1960s, however, there were increasing signs that the period of comfort had ended. At this time, multiple scenarios which postulated different future worlds began to be developed. During the same decades, the practice of using gaming exercises to prepare for disasters and emergencies also grew, based on a recognition that this is a world in which accidents can happen. These two techniques were both preparing for accidents that could be remedied, or transitions that could be experienced and then transcended. This assumption of a sequence of *'good-bad-good again'* conditions is well captured by the titles of Pierre Wack's two articles on scenarios¹⁴. The first, which introduced the idea of an impending change, was called "Scenarios: Uncharted Waters Ahead", while the second implied that once the transition was over, a stable world would follow: "Scenarios: Shooting the Rapids." These two titles conjure the image of travellers on a river which flows calmly, then becomes rough and turbulent in rocky waters, until it widens and deepens again once the rapids have been traversed -- or once the crisis had passed.

The period since 1990 has, however, been deeply disturbing. In these years our river travellers have not yet discovered whatever calm delta awaits them. Instead, they are faced with more and more rivers entering the stream, encountering ever larger boulders and bluffs, causing increasing turbulence and confusion before the combined waters enter their broad and pacific flood plain leading into the ocean. The continuation of these complex currents has created an anxiety that perhaps there is no exit from the rapids of this particular river.

¹⁴ *Op. cit.*

The Other Side of the Rapids



A need for new tools

The Netherlands Ministry of Home Affairs found itself, like many other organisations, facing the challenge of these unpredictable times. Moreover, their responsibilities for crisis management had been framed in such a way that they needed to train people to integrate crisis management thinking into the policy work of separate ministries and, in addition, coordinate that thinking across ministerial boundaries. In meeting these tasks, they have had very little hierarchical authority and therefore needed to be able to persuade relevant ministries of the benefits of experimenting with a new technique for thinking about crises and the future. Their response has been to take the basic model of a gaming exercise, but expand its components to include features that incorporate some of the language and thinking that underlies the use of multiple scenarios for the development of policies and strategies -- what Michael van den Berg in Home Affairs calls "the roof tile approach".

Goals and objectives

As an exercise in learning and persuasion, the goals of Home Affairs' first experiments with scenarios were necessarily abstract, as sketched out in the two diagrams below:

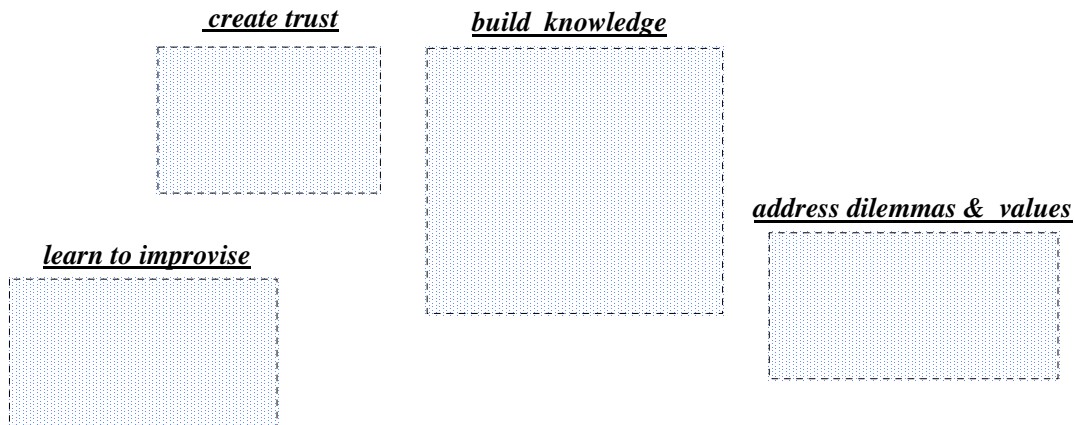
Goals & Objectives

A crisis management policy exercise
prepares people
for decision making in a crisis

Characteristics of a crisis:

“in a network of actors - under time pressure - with feelings of uncertainty - & media on top of it”

by using the exercise as a “neutral space” to:



Given the definition of crisis as something where fundamental values and continuities are at stake, where a variety of actors in different ministries and organisations are acting under time pressure, in conditions of great uncertainty and high media interest, then the scenario simulation exercises becomes a neutral space. This space can then be used to create trust, build knowledge, address dilemmas and values, while learning to improvise across ministerial boundaries. These four objectives are important for the following reasons:

The importance of trust

If a diverse group are to be able to cope effectively in a real crisis, they will inevitably rely as much on informal networks of trust and acquaintance as they will on formal structures. Given that daily tasks often mean that organisational boundaries are not often crossed, a scenario exercise should start to build that trust across ministerial or institutional boundaries. This can happen if the exercise has been constructed so as to create a ‘neutral space’ -- even a playful space -- where people can come to know each other intensely in a short period of time. In the course of achieving the various tasks set during the exercise, participants begin to learn who they like, who they trust and who can they think they can rely upon in a crisis, including individuals from other organisations.

Addressing dilemmas and values

The knowledge of each other that is acquired in such a exercise is further increased by using the exercise to discuss fundamental dilemmas outside the pressures and immediacy of a real crisis. For example, imagine a policy exercise where the Dutch government, as president of the European Union, suddenly has responsibility to evacuate all Europeans from a neighbouring country in turmoil. What would be the rules of engagement? Who would have the responsibility for organising the evacuation: the Foreign Affairs Department or the Defence Department? How would priorities be established for the evacuation, i.e. who would be allowed to leave first? By identifying these dilemmas during the policy exercise and discussing possible responses to them, participants in the exercise are able to think through difficult issues, as well as recognise fundamental shared values and visions. The

more neutral conditions of a simulation also allow a variety of viewpoints to be aired. This is something that is often pushed aside during a crisis because the pressure of time and urgency acts to reduce dissenting voices, even among people who know each other well.¹⁵ The discussion of dilemmas also means that in a real crisis the kinds of difficult issues which are often raised by the media can be rehearsed in a low-risk environment.

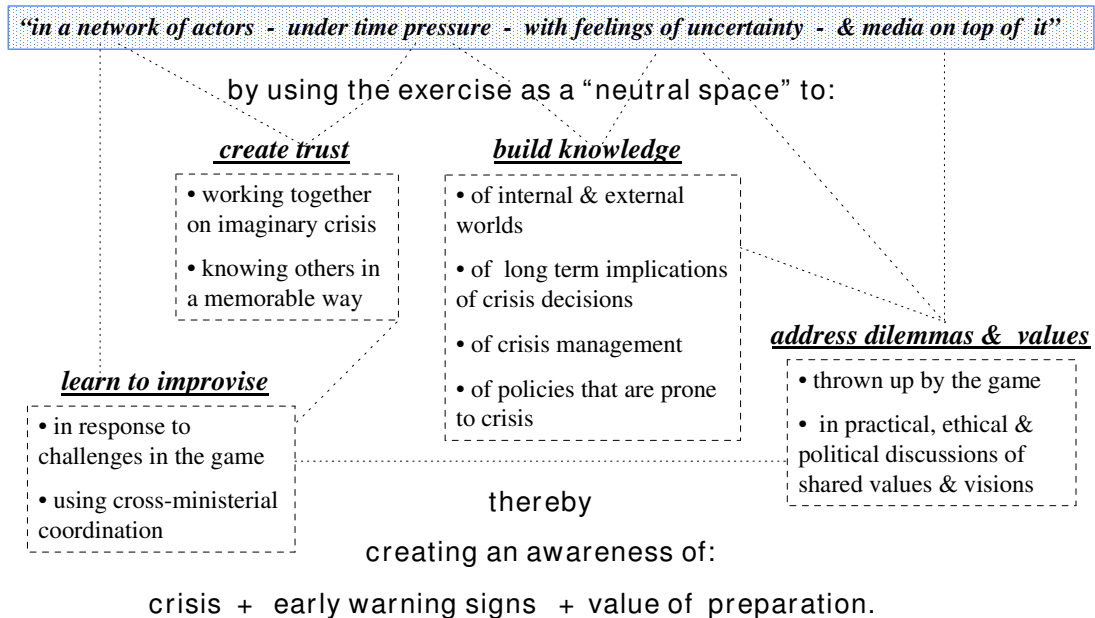
Building knowledge

Another aspect of the time pressures of a real crisis is that there is very little opportunity to increase one's knowledge of how different systems interact. Such knowledge is vital, if the long term implications of crisis decisions are to be understood. Here again, a simulation can -- either in the preparatory phase or in the follow-up -- help increase the participants' knowledge of how different systems affect each other. For example, in March 1994, the Home Affairs Ministry organised a policy exercise around the theme of a "Harsh Winter" in the Netherlands. In preparing for this exercise, the team looked into the natural gas system of the country to discover whether it were capable of maintaining supply even when the temperature fell to very low levels. This forced participants to understand the natural gas distribution system and -- more broadly -- the international market for natural gas in order to anticipate how other actors might respond to the shortages of a harsh winter. It is a good example, therefore, of the need to increase the participants knowledge both of their own systems (e.g. natural gas distribution in the Netherlands) and of external systems (the world market for natural gas supplies). Such knowledge not only helps participants understand some of the long term implications of their decisions, it should also help to reduce the feelings of uncertainty that attend any crisis.

Goals & Objectives

A crisis management policy exercise prepares people for decision making in a crisis

Characteristics of a crisis:



Learning to improvise

¹⁵ Michael Nicholson, "Stress and the Rational Decision Maker" in the *Journal of Conflict Processes*, October, October 1992, volume 1, number 1 p. 17-25.

The last important attribute of working with simulations is that by imagining themselves in the midst of a real crisis, participants will look for responses to specific challenges thrown up by the game. For example, in a recent simulation exercise, an unknown disease broke out among a group of refugees. Managing that outbreak with all of its medical and public health ramifications, as well as anticipating a public protest against the admittance of refugees at all, required the participants to create solutions to a problem they would not have normally faced in their daily affairs in such a cross-sectoral and cross-ministerial context. The need to improvise a response also required cross-ministerial co-operation to be effective.

Three fundamental goals

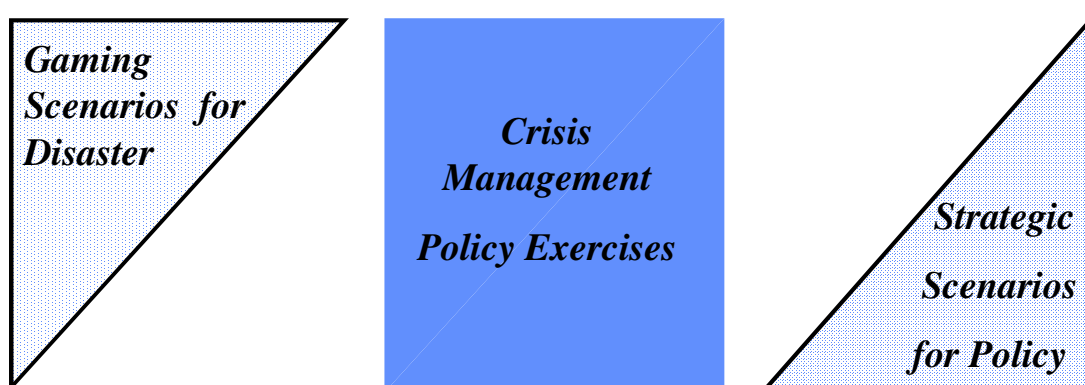
The four aims outlined above are all meant to contribute finally to three fundamental lessons in integrating crisis management in policy thinking:

1. create an awareness of crisis -- it **can** happen here;
2. learn to recognise the early warning signs;
3. accept the value of preparation.

These goals are clearly much broader than operational training for an emergency or disaster, and derive from the definition of a crisis as “a serious disruption of the basis structures or an impairment of the fundamental values and standards of a social system.”¹⁶ The next section will describe how the Ministry of Home Affairs has attempted to meet these aims in the two simulation exercises which have been carried out so far.

Creating Scenarios for Crisis Management - a New Hybrid Form

First Experiments in Integrating Two Scenario Traditions



Three stages of work

The policy exercises so far tried in the Ministry of Home Affairs have sought to integrate gaming scenarios for diasters with strategic scenarios for policy in a new form known as “Crisis management policy exercises.” These exercises have had three distinct stages of work. Bernadette Sourbag, the leading developer of the crisis management policy exercises,

¹⁶ Reader Seminar: *Scenarios for crisis management*, Crisis Management and Fire Service Directorate, 1995, The Hague, p.20.

initially saw each stage as have equal importance; the “30%-30%-30%” rule, an approach which has been used in the two policy exercises that have been tried so far.

First Experiments in the Ministry of Home Affairs

<u>Preparation</u> 30%	<u>Policy Exercise</u> 30%	<u>Follow-up</u> 30%
<ul style="list-style-type: none"> • <i>Identify areas of policy</i> • <i>Secure political commitment to exercise</i> • <i>Identify goals & target audience</i> • <i>Build knowledge of self and outside world via “systems analysis”</i> • <i>Write the scenario story to be used in the exercise.</i> • <i>Design the exercise; prepare all logistics</i> 	<ul style="list-style-type: none"> • <i>Play the game - 8 hours</i> • <i>Monitor the action of players</i> • <i>Identify & discuss dilemmas highlighted by events in the scenario story</i> • <i>Consider long-term implications of the actions taken during the game</i> • <i>Complete evaluation forms on the exercise</i> 	<ul style="list-style-type: none"> • <i>Evaluate the lessons of the game</i> • <i>Discuss implications for own policies</i>

Preparation

The opening preparatory stage is of considerable importance. It is the point at which political commitment to participating in the exercise is built up and when the most useful themes and simulation ideas are explored. During this stage, Bernadette Sourbag and her colleagues in the Home Affairs Scenario Team postulate different demanding situations which might face her government -- an epidemic disease, a sudden influx of unwelcome refugees, a long summer drought, or a particularly harsh winter. As she and her colleagues explore different ‘themes’ for a policy exercise, they talk with people in a number of ministries to see what themes can be usefully explored by several ministries working together.

Out of this process, there have been two policy exercises organised in the past 12 months. The first was known as “A Harsh Winter” and involved about 30-40 people from four different departments: Economic Affairs, Health, Home Affairs and Transport. The second exercise was built around an “Out-of-Area Crisis” in which a neighbouring country to the EU suddenly experienced violent political unrest. This second exercise drew in about 60 people from five ministries: Foreign Affairs, Defence, Justice, Home Affairs and the Prime Minister’s Office. In addition, there were two people from a leading newspaper and a leading television station.

In the case of the “Out of Area Crisis”, considerable work was done before the game itself took place. Long before the large groups of people met, a smaller number of people -- representing the participating departments -- formed a “Task Force”. This Task Force had the responsibility over several months for a) writing the scenario story to be used in the policy exercise, b) doing the systems analysis to support and illuminate the story and c) designing the format of the policy exercise itself. One of the interesting features in this preparation is that as the scenario stories developed, people in the participating ministries looked at early drafts. This allowed them to identify the implausible elements, while also

identifying other incidents that would usefully challenge their ordinary assumptions and procedures. These suggestions were then incorporated, to the extent possible, in the final scenario story used in the policy exercise. This approach was already an evolution from the approach taking in the “Harsh Winter” exercise, when the organisers from the Ministry of Home Affairs had most of the responsibility for the scenario stories.

Policy exercise

Once this preparation was done, the exercise game itself took place. However, in addition to the players from the Ministries, there was another group of “monitors” who watched how different participants were functioning during the game. What was the interaction of players during a meeting, for example. Were dissenting views given an intelligent hearing? How much did members of one ministry seek out people in other ministries who might be useful? Etc.

Both the “Harsh Winter” and the “Out of Area Crisis” game took place during a single day. In the case of the second exercise, everyone assembled on the conference floor in the Ministry of Home Affairs on a morning in March 1995. On this floor was a plenary room, where everyone could meet, as well as separate rooms for each ministry, a room for the “logistics”, and a room for “Control”.

During the opening plenary meeting, participants were given a written scenario and a television news presenter’s version of critical events over a fifteen day period. In Round 1, which lasted during the morning, participants were asked to accept that *“these events have already happened. It is now the 6th of April 1998, please advise the Control Group (representing the Prime Minister’s Office), what to do on the following issues”*. Once their advice had been given, everyone met in a plenary session and a discussion took place. During this discussion, each Ministry said what it had done and why, with reactions to their decisions coming from others in game.

During Round 2 in the afternoon, a similar format was followed. However, this session was more dynamic since the players were no longer responding to an historical record of the previous few weeks, but were acting in “real time” and were being fed new information by the Control about emerging incidents and problems to which they had to respond. Here again, once play ended, everyone met in the plenary room to discuss their reactions to the particular events of the afternoon’s “crisis”.

The Round 2 plenary also concluded with comments on the exercise as a whole, a vital element as these simulations are still viewed as experiments designed to learn how best to conduct such policy exercises. Every participant was then asked to fill in a form commenting on specific aspects about the scenario exercise itself. These formal critiques of the events were followed by informal comments over drinks and hors d’oeuvres -- probably as valuable (although less systematic...) a form of gaining reactions as the written comments alone.

Evaluation

While the Ministry of Home Affairs has responsibility for collecting and analysing the evaluations of the two policy exercises that have taken place, there is also follow-up work to be done with each Ministry. These evaluations are intended to consider what was learned during the exercise about each ministry’s own ways of responding to issues raised during the simulated crisis. At present, each ministry is expected to conduct this kind of follow-up on its own.

Within the Home Affairs scenario team, however, the days and weeks following both the “Harsh Winter” and the “Out of Area Crisis” policy exercises were used to evaluate what had been learned a) from the specific exercise and b) about conducting similar exercises. The formal evaluation of the “Harsh Winter” simulation concluded that participants felt they had gained new insights into the threats contained in this scenario and that they had been able to clarify their own -- and others -- duties and responsibilities during such a crisis. There was some criticism of the game, including a request for less “action” and more time for reasoning and reflection. However, on balance, the evaluation report concluded that “A simulation day is a day of action and reflection: allow enough time for both.”¹⁷

The evaluation of the “Out of Area Crisis” was somewhat less favourable, reflecting a sense of disappointment among the participants. This seems to have had several origins. First, there may have been unreasonably high expectations of the game because of the relative success of the preceding “Harsh Winter” exercise. Second, the scenario story used in the exercise was fairly complicated and involved several competing crises coming out of a single train of events beyond the borders of the Netherlands. The virtue of the story was that it exemplified a complex situation involving a number of different ministries all of whom needed to be co-ordinated through the Prime Minister’s office -- one of the players in the game. However, because a number of senior officials were playing the game, only one day had been allocated for play. This was probably too short a time. In a telephone conversation about an earlier draft of this paper, Ragnvald Solstrand of the Norwegian Defence Research Establishment commented that one of the most frequent difficulties he had experienced in a long career of organising gaming exercises was trying to do too much in one day. That he said, “had been the cause of repeated failures.”

However, there was also a split in the reaction of participants to the “Out of Area Crisis” exercise. The majority felt that too little time had been available for exploring fundamental issues raised by the scenario story -- reflecting R. Solstrand’s comments on trying to do too much. One ministry, however, felt that it would be better to return to simple practice drills that did not try to create a hybrid exercise involving both preparation for an emergency and policy thinking.

More generally, the evaluations of the “Out of Area Crisis” concluded that there was little more to be learned about the methodology of policy exercises which integrate crisis management and policy thinking in a single event.

Reviewing and revising the methodology

Since the end of the “Out of Area Crisis” exercise, there has been a vague sense of dissatisfaction within the Home Affairs scenario team. An underlying tension between gaming scenarios which test an organisation’s ability to respond to unusual events, and strategic scenarios which consider policy issues, has not been entirely resolved. There is a strong feeling that the team need to spend more time trying to understand the underlying assumptions of participating clients -- what are known in the strategic scenario tradition as the “mental maps” of managers -- but that conclusion has not been enough to satisfy the team that they had developed the best methodology for integrating crisis management in policy thinking.

There has also been a request that the Ministry of Home Affairs consider another method in which a small group of participants (8-9 people) would be confronted with the kinds of dilemmas raised by a crisis. The group need not be composed of people from several ministries, and the dilemmas need not be part of a highly-designed scenario game and story.

¹⁷ *Severe Winter: evaluation report*. Internal report from the Netherlands Ministry of Home Affairs, AVT94, p.23.

Instead, the dilemmas should take the form of questions posed by a relative outsider with an excellent reputation and profound knowledge of the subject under discussion. His or her questions would then stimulate an examination of the issues raised. This request suggests that the methodology needs somehow to be simplified, yet it has not been clear exactly how that goal might be achieved.

Given their vague sense of dissatisfaction and the request from their clients for a new methodology, the Home Affairs scenario team decided that it was time to ask for expert advice on their experimental work so far. There was a desire above all to clarify the differences between the two scenario traditions and to examine more closely how they might be integrated.

Observations from a Round Table

On 7 September 1995 in the Hague, the Ministry of Home Affairs organised a small round table of scenario practitioners with experience of both gaming and strategic scenarios¹⁸. After a brief introduction summarising the observations of this paper, the participants were asked first to identify the defining differences between gaming scenario exercises and strategic scenario exercises. This then formed the basis for identifying an integrated use of scenario techniques and a variety of suggestions for how the Ministry of Home Affairs must develop its own work.

“Defining” Differences

In asking the participants to identify the “defining” differences between the two kinds of scenarios, the participants were looking for those qualities in crisis management or policy making that “define” the difference between the two kinds of exercises. In the end, participants identified five critical qualities:

- time
- purpose
- embodiment of policy
- nature of tests
- participants

Time

Time -- in a variety of guises -- is the over-riding difference between these two exercises, as already discussed earlier in this paper. In a crisis the reaction time is so limited there is little or no time to think. In contrast, in strategy, the reaction time is more generous and greater deliberation an advantage.

Because the time frames are so different, crisis preparation inevitably means preparing for a specific situation where there is only a short time to act and no time to change the organisational system within which one is reacting. Strategic scenarios are different: a flexible response is possible and there might even be time enough to change the system to respond to an altered working environment. Strategic scenarios can, therefore, be used to test the overall suitability of the organisation.

Purpose

¹⁸ A list of the participants at this meeting appears in Appendix 1.

Because of this difference in the nature of time, a gaming scenario exercise effectively prepares the present organisation to do a particular job, to react to a given emergency or crisis. Strategic scenarios, on the other hand, will alert the organisation to an altered working environment in the future and therefore act to change the organisation itself. Gaming scenarios are thus used to learn how to respond to a crisis, while strategic scenarios are used to identify and avoid a crisis, especially one that results from a lack of “fit” between the organisation and its environment. Warren Walker, from Rand/EAC, expressed this difference as one in which strategic scenarios define the overall context for an organisation, while gaming scenarios test the organisation in a particular setting.

Embodiment of policy

These differences mean that policies which are appropriate to crisis, are necessarily policies which are embodied in an organisational structure -- an interacting network of hardware, people, communications and behaviours. It is this concrete structure which is tested in a gaming exercise, in actions and behaviours. Strategic policies, however, exist in the mind, they are a mental construct, a set of possibilities and a sense of direction among those possibilities. Not surprisingly, the ‘test’ in a strategic scenario workshop takes place not as a game, but as a conversation. This difference in policies that are embodied in physical structures versus policies that can only exist as a mental construct was one that Kees van der Heijden, University of Strathclyde, felt was particularly important.

Nature of tests - measurement & feedback

Another important defining difference between the two kinds of scenario exercises concerns the role of tests. Because gaming scenarios test the ability of an existing system to respond to a given situation or event, they should include detailed measurements of successful performance -- for example, the amount of time between an alert and a response, or the amount of damage caused (or avoided) during the game. In strategic scenarios, however, the measures of success are likely to be broader and more conceptual; in many cases it will be hard to evaluate the outcome at all because the events that will actually test the conclusions and reactions of those involved are still several years off in the future.

The existence of more precise measures in a good gaming exercise, means that it is possible to test the capacity of an organisation to react effectively in a time of stress. If an organisation has failed to measure well on the tests of the game, several responses are possible: the organisation may decide to tighten procedures, train people more intensively, or alter some aspect of timing and reporting. However, such a game may also lead people to conclude that the organisational system itself needs to be reviewed and possibly altered.

A good example of this was given by James Kahan from Rand/EAC, who has developed a game to test government policy on the sale and use of illicit drugs. With the help of a computer model and measurable outcomes that could be entered in the model (e.g. the price of drugs on the street or number of drug addicts), the various agencies playing the game discovered weaknesses in their own strategies and policies on drugs.

Significantly, this game assumed that the world within which policy choices were made was largely unchanged -- except through the actions of the players. The consequences of their decisions could therefore be measured and the results attributed to them. In a strategic scenario exercise, however, an unchanging external world cannot be assumed; it is precisely what is at issue. Strategic scenarios therefore put all those elements which are beyond the control of the players (e.g. violent conflicts between rival drug cartels) at the centre of the

discussion. In this situation the possibility of measuring outcomes that can be attributed to the participants in the exercise simply does not exist.

Participants

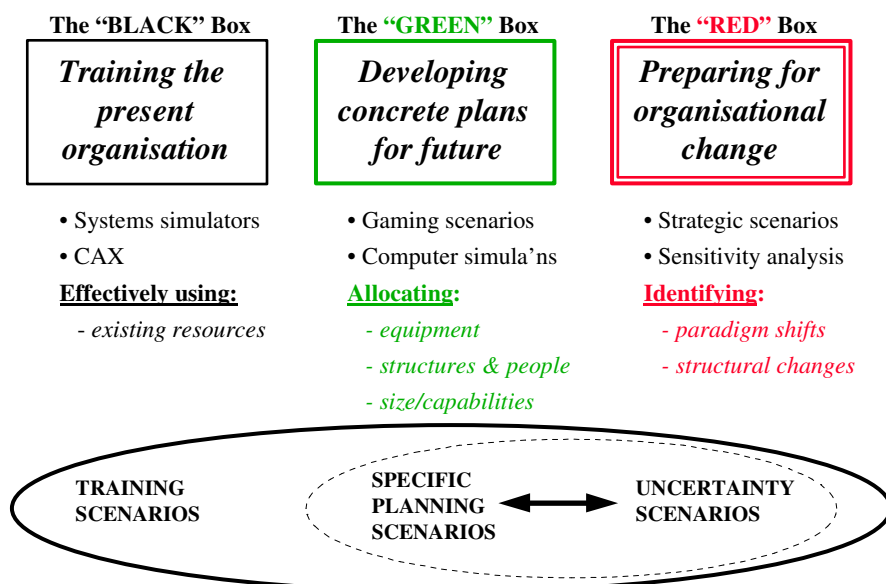
Finally, it was agreed that the people involved in different kinds of scenario exercises were likely to come from different parts of the organisation. In a gaming exercise, participants need to be those who are responsible for the present system and its functioning. They have the most to learn from such a gaming exercise. Those who benefit most from strategic scenarios, however, are the people who set the direction of the system as a whole, who decide the “mental construct” of the organisation and its purpose in a wider and unpredictable environment. With this difference in mind, it becomes important to ensure that exercises on offer match the needs of the participants who are expected to attend.

This discussion of the participants in different scenario exercises then raised a difficult question about the goals of the Ministry of Home Affairs. Because the directive is to “embed crisis management in policy thinking”, the participating clients for the Ministry are those people who have responsibility for both policy and the management of serious crises. With this clientele, what is the appropriate methodology?

An Integrated Use of Scenarios

At this point in the discussion, Ragnvald Solstrand from the Norwegian Defence Research Establishment, presented an overhead slide titled “An Integrated Concept for the Use of Scenarios”. This diagram formed the basis of much of the subsequent discussion and is reproduced here, with a few additional notes. Following the different coloured pens used in the diagram, there were three different tasks and exercises identified: the black box, the green box and the red box.

An Integrated Use of Scenarios



The “black box”

The *black box* uses *training scenarios* to train people working in the present organisation on clearly agreed tasks so that maximum effective use of existing resources can be achieved. Flight simulators are an example of such training and black box exercises are some of the easiest to introduce and manage.

The “green box”

The *green box* uses *specific planning scenarios* in order to develop concrete plans for the future. Most organisational planning is “green box” planning. This is where decisions are made on allocating equipment and people to meet the purposes of the organisation. Many organisational processes are driven by “green box” decisions whose territory is defined by budgets and departmental size. In this box, gaming scenarios and computer simulations which test different uses of resources are very helpful.

Our discussion of the “green box” included a review of the use of probabilities in scenarios. Kees van der Heijden, with a background in strategic scenarios, has long argued that probabilities do not help managers think about uncertainty because once a high probability is given to a particular scenario being realised, the other possible scenarios tend to fall off the mental maps of decision-makers. If an organisation wants to maintain flexibility in an unpredictable world, it must keep in mind several different images of how that world will develop and avoid concluding one scenario is more likely to occur than another.

The example Kees van der Heijden uses is that of the American preparations for the 1990-91 Gulf War. Although US intelligence had written several scenarios of how Saddam Hussein might behave once he had massed his armies along the border with Kuwait in 1990, the scenario that said he would invade was given a very low probability. As a result, no ships were moved into the Persian Gulf and few preparations were available to counter the Iraqi invasion when it actually occurred. Had the US first considered what needed to be done in all the scenarios, their ability to respond might have been improved.

As Ragnvald Solstrand pointed out, however, complete preparations cannot be made for every scenario. At some point managers have to say: this piece of equipment supported by these people will be placed in this particular place. In order to make that decision, managers inevitably take a view on the world they are most likely to face -- in short, they plumb for the greatest perceived probability in allocating their use of resources. We all agreed that without that implicit selection of probabilities, no decisions are possible in the “green box”.

The “red box”

Finally, there are the *red box uncertainty scenarios*. These scenarios prepare for organisational change, based on identifying significant paradigm shifts and structural transformations in the world around us. Ragnvald Solstrand, who has a career of developing gaming scenarios, noted that his war game scenarios always assumed the same configuration of threats and alliances existed in the external world and did not explore how the direction of threat might change fundamentally. They were therefore quite surprised when the Soviet Union collapsed and a major structural shift took place in their surrounding military environment. To have identified this possibility, they needed to have spent more time developing what he called uncertainty scenarios (or “strategic scenarios” in the language of this paper).

Dilemmas in the “green” and “red” box

Our discussion around this diagram concluded with an important observation about how organisations behave. Looking at all three boxes as a whole system, we agreed that organisations are driven by the “green box” where decisions about money and resources are made. However, in order to make those decisions, assumptions need to be agreed on the nature of the future environment, based on some implicit or explicit understanding of the probabilities involved. Once the “green box” decisions have taken place based on these

assumptions there is an inevitable tendency to alter the perception of what is likely, creating a “probability = 1” that the assumed future is the one the organisation will face. In short, the very real need to make a decision about the allocation of resources closes people’s minds to the possibility that other futures may also face them. Given the risk that “green box” decisions will shut off perception of alternative futures, we then need to ask: How do we keep our eyes open? How do we keep the “red box” alive while working, practically, in the “green box” of every day decisions?

In highlighting this difficulty, it was noted that training scenarios (“black box”) are easier to make than specific planning scenarios (“green box”) and that these in turn are easier than uncertainty scenarios (“red box”). For that reason, one needs to be careful not to move to training scenarios too quickly, since it is much more difficult to move back to the intellectually and emotionally more demanding tasks of understanding uncertainty.

This diagram comparing the black, green and red boxes of organisational training was extremely helpful in clarifying the thinking around the table. We therefore moved on to considering what options the Ministry of Home Affairs has in meeting its responsibilities in crisis management.

Advice and Options for the Ministry of Home Affairs

In introducing this part of the discussion, people were reminded again of the ambitions of the Ministry of Home Affairs in looking for an exercise that blends gaming and strategic scenario elements so that participants will

- develop an awareness of crisis -- it **can** happen here;
- learn to recognise the early warning signs;
- accept the value of preparation.

Out of the subsequent conversation five observations emerged:

- the goals are too ambitious for one exercise;
- one game :: one goal;
- putting uncertainty on the table is useful;
- the need for sequencing
- understanding the typology of crises.

The goals are too ambitious

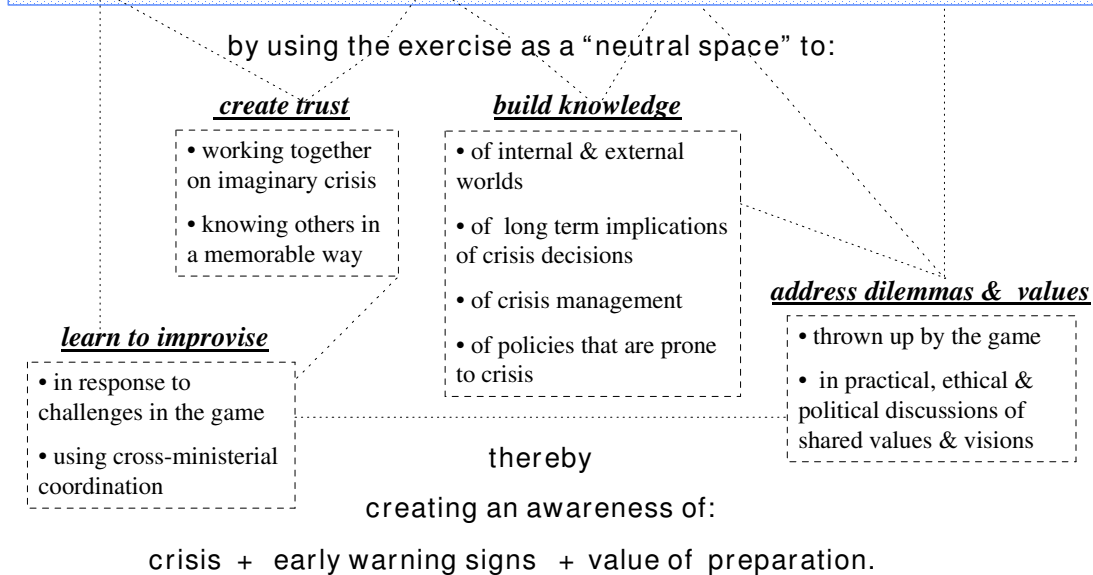
In light of the Round Table’s conversation, it is not surprising that they reacted to the diagram of the Ministry’s goals and objectives with something like polite amazement.

Goals & Objectives

A crisis management policy exercise
prepares people
for decision making in a crisis

Characteristics of a crisis:

“in a network of actors - under time pressure - with feelings of uncertainty - & media on top of it”



It was, they argued, simply not reasonable to expect that one exercise could possibly meet all these different objectives. They were not surprised that Bernadette Sourbag, who has been working to develop scenario methodologies in the Ministry of Home Affairs, reported that it has been difficult to break free of the “black box” model of training and to encourage participants to engage in greater discussion of dilemmas and uncertainties. Using the language of this paper, the Home Affairs’ two scenario experiments so far had sought to use “black and green box” scenario techniques to address “red box” issues. Although many people were enthusiastic about the two exercises, the Round Table’s critique would explain why some participants had wanted more time to “discuss dilemmas”. Therefore, one strong piece of advice from the Round Table was to **be very specific about the purpose and context** of each scenario exercise.

One game :: one goal

This conclusion led naturally to the recommendation that each exercise should be limited to achieving one goal: either test the capacities of the existing system in a time of stress, or alert people in that system to macro changes in their working environment, but do not try to accomplish both in a single event. This led most participants to recommend that the Ministry first test the “green box” capabilities of different ministries with gaming scenarios and then use the success of those exercises -- and the shortcomings they reveal -- to build support for work on larger areas of uncertainty, a point we will return to below.

Putting uncertainty on the table

Part of the reason for suggesting that the Ministry begin with “green box” exercises comes from the observation that the Home Affairs Scenario Team is working with policy makers and politicians. Based on his work with the city of Rotterdam, Jaap Leemhuis of Global Business Network, Europe, then observed that politicians are very wary of strategic scenarios in the “red box”. As he put it, politicians are “not paid to be uncertain, but to provide

certainties.” It was also noted that learning is always highest around the kinds of specific situations set up by games and simulations, so that it would make sense to start with gaming scenarios in order to accelerate organisational learning and engage their interest in scenarios more generally.

However, Kees van der Heijden observed that “putting uncertainty on the table is useful”, particularly in light of the tendency of all organisations to put more faith in their working assumptions than is justified, thereby closing off their own awareness of the unpredictable. He recommended that more work be done in interviewing the participating clients of the Ministry and feeding back the results of the interviews. He was referring to techniques used in strategic scenario work to uncover the unconscious “mental maps” managers use when thinking about the future. It is a technique which is designed to facilitate learning in an organisation by basing that learning on their visions and their values, an essential task in the Ministry’s own work, and one the scenario team had already wanted to use more extensively. In Kees van der Heijden’s work, after putting uncertainty on the table through interviews, the scenario team would then develop alternative scenario stories to explore the nature and range of the uncertainties to be faced. These stories would then be used to test or imagine possible responses to different conditions.

Sequencing

What was not wholly resolved by the discussion was the question of sequencing. It was clearly common ground that it is very difficult to merge effectively strategic scenarios and gaming scenarios because they are “serving different masters” and one game (or exercise) can only have one goal. However, there is also a need to meet the goals of both kinds of exercise (“keeping the red box open while working in the green box”). That then raised the question whether it would make more sense for the Ministry of Home Affairs to start work with its constituents by “gaming in the green box” or developing “strategic scenarios in the red box”.

Opinions were mixed here. Ragnvald Solstrand clearly felt that as an inside player among the government ministries, the Home Affairs scenario team needed to make themselves useful by helping individual ministries develop the ability to offer gaming scenarios on specific events. This work would then create a group of champions in the different ministries, able to raise curiosity about scenario work and generate greater demand for more services.

To some extent, this view (which was echoed by others) was based on a lack of clarification during the discussion on the standing of the Ministry’s scenario team. Several people in the Round Table assumed that the team still needed to establish its credentials, when in fact the work of the Home Affairs team has already generated considerable interest in using scenarios throughout the government. In that sense, a constituency for their work already exists. However, it was observed by one of the members of the Home Affairs scenario team, that by and large this constituency has so far only asked for help in addressing known threats, i.e. ones that have been seen before or can be easily anticipated.

It is said that armies are trained to fight the last war; the same comment could be made about organisations being trained to respond to the last crisis. From this perspective, one of the important jobs of the Home Affairs scenario team is to help their client ministries to perceive new threats. Here, the value of strategic scenarios in crisis management is much greater as they can help organisations to identify crises which have not been seen before. Such crises are particularly common when major social and economic structures are shifting, as they are now. Therefore, it may make more sense to use strategic scenarios that identify new crises.

Subsequently, gaming exercises can be developed to test the present ability of any ministry or group of ministries to respond to the new kind of emergency.

A typology of crises

The discussion of sequencing ended with a reminder from Bernadette Sourbag that their work so far had already developed a typology of crises according to whether the crisis involved:

- a single ministry - Type A
- multiple ministries - Type B
- Cabinet level co-ordination - Type C.

So far, as is clear from their first two scenario experiments, the Ministry of Home Affairs has concentrated on the difficult task of working across ministries (in the “Harsh Winter”) and at Cabinet level (in the “Out of Area Crisis”). However, the scenario team may need to test whether ministries are prepared to handle Type A crises affecting them alone. This suggested another sequencing pattern: first to get organisations used to gaming scenarios within their own ministries around Type A crises. Second, to broaden the scenario games to include “green box” gaming scenarios across several ministries. Finally, the scenario team could then shift attention to the future, using strategic scenarios to identify the unknown crises growing out of new structures and circumstances.

Alternatively, it was suggested that strategic scenario work be used to identify which crises might be classified as Type A, B or C.

One last point on the typology of crises: in his notes to the Round Table meeting, Kees van der Heijden observed that:

A ministry could have three different attitudes towards a crisis situation:

- They could try to deal with it themselves, “claim the crisis”
- They could experience it as inconvenient, “deny the crisis”
- they could invite BZ (Home Affairs)’s help, “hand over the crisis”.

It is to be expected that while ministries will be inclined to “claim the crisis”, BZ, in their desire to co-ordinate, will feel that they are “denying” its potential scope.

This notes suggests that although the typology of crises is in place, the Ministry may need to do more work to establish a better understanding of how any crisis can be identified, quickly, as one type of crisis or another.

A few final issues

Before concluding the Round Table meeting, a few final points were made on the design of games and the uses of fear.

Game design

The purpose of the Round Table was not to discuss the specific design of either gaming or strategic scenarios, but rather to see how the two techniques might work together. As the

meeting was ending, however, those people with experience of game design noted that in planning any game the following decisions have to be made:

Own roles or rotate? Would participants play their own role (i.e. the Minister of Finance is also the Minister of Finance in the game), or play the roles of other positions?

Real time or scaled time? Would the game take place in real time or compressed into a single day or several days that would scale events accordingly? Ragnvald Solstrand noted that he had a request for a game that took place in real time -- i.e. 2 hours every third day -- but that it was proposed by an insider in the defence ministry who was able to organise people to adhere to such a schedule.

Open feedback or individual? Reporting to participants on how they performed during the game can either be done in an open discussion and debate, or individually where less embarrassment and more candour may be allowed.

Neutral site or home ground? Many players will want to stay close to their own offices during a game. However, it was recommended that a neutral site is better, one with “no escape routes”, so that players stay for the full exercise.

Number and nature of moves Finally, the moves in a game -- the decisions players are asked to take -- can either be limited, and allow for considerable discussion, or more interactive as they respond to the decisions of other players.

Uses of fear

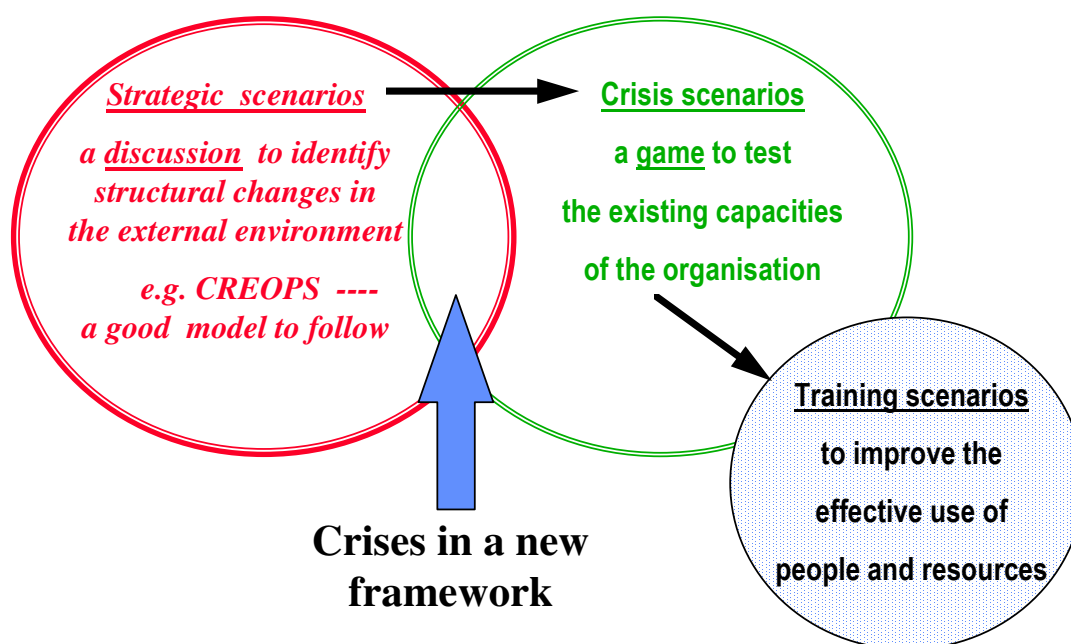
The final comment came from Peter Struik, who has been deeply involved in the latest strategic scenario exercise in the Rijkswaterstaat, known as CREOPS. He had earlier made the observation that a crisis creates a high level of shared fear that damage will take place. This, he argued, creates a lot of common ground and helps people respond together. In a strategic situation, however, the potential pain of failing to match the working environment is distant and invisible and the fear much less likely to be shared. He saw his work, therefore, as a way of **organising fear**, so that a timely response was possible even in the absence of concrete signals that a crisis was coming.

Future Directions

As the participants of the Round Table prepared to leave, the Home Affairs scenario team reviewed the discussion and its significance for their work. Clearly the two experimental scenario exercises so far have helped them to understand the potential and the limits of trying to create a hybrid scenario form. The conversation of the Round Table and the work in this paper helped to clarify why those limits have been hit. In particular it helped the team understand why it has been so difficult for participants to confront future dilemmas and new types of crises using gaming techniques based on testing the capacities of the present organisation.

Yet, in spite of the frustrations they have experienced, the team is also confident that a solid constituency for continued scenario work exists in the Dutch government, in a variety of ministries, and that this enthusiasm is based on the real success of the work so far.

A New Approach to Scenarios



Identifying new crises: the overlap of strategic and gaming scenario work

As this diagram shows, there is a clear role for strategic scenarios in helping organisation identify and adjust to structural change in the external environment, in their basic framework. However, there is also a role for gaming scenarios, which test the existing capacities of an organisation to respond to a crisis. Where the two overlap is where new crises, often developing in the collision of existing organisations with new conditions, are most likely to be found.

Using this diagram, the Ministry of Home Affairs can now use strategic scenario techniques to identify new crises. Gaming scenarios can be developed to test the ability of the organisation to respond to both old and new emergencies. The lessons learned from these exercises may then shape the kind of training given to people in the ministries involved.

Learning from CREOPS

In developing and using strategic scenarios more widely, the scenario team from the Ministry of Home Affairs felt that they had a great deal to learn from the latest scenario work undertaken at the Rijkswaterstaat (RWS) and known as CREOPS. CREOPS has been a classic strategic scenario exercise in which the managers became deeply involved in developing the scenario stories and working through their implications for the organisation. The stories themselves were then written by professional authors who had spent considerable time in the organisation itself so that they would be able to write stories that helped people in RWS imagine the different scenario worlds as vividly as possible.

Once the stories were ready, different departments in RWS then spent a day with each of the four scenarios working through what life would be like in that particular world. These four days were spread out over a period of time, so that the impact of each scenario could be

better absorbed. These intensive workshops not only tested the existing capacities of the organisation, but also threw up a number of new issues they were likely to face.

What the CREOPS scenarios did not do, was lead to the construction of gaming scenarios along the lines discussed here. One possibility for the Ministry of Home Affairs would therefore be to work with the CREOPS scenario team to identify new kinds of crises against which the organisation could be tested in a gaming exercise.

General Conclusions

In the three-four years since the Ministry of Home Affairs began redefining its own role in crisis management considerable progress has been made. A new understanding of the nature of crisis has been accepted and the benefits of using scenario techniques have been more clearly understood. Following their early, and largely successful experiments, Home Affairs now has a much clearer idea of what can and cannot be accomplished with different kinds of scenario tools. By pushing at the boundaries of what has been done before, the scenario team in Home Affairs has also contributed to clarifying the differences and complementarities in gaming and strategic scenario traditions. This work can now contribute to a finer appreciation of the “right tools for the right job”. With luck and continued questioning, experimenting and learning, this will help all ministries respond more effectively to the new crises and shifting structures they are likely to confront in coming years.

Appendix 1

Participants in Scenario Round Table 7 September 1995 The Hague

Michael van den Berg, Ministry of Home Affairs

Tom Goemans, KPMG Management Consultants

Kees van der Heijden, Strathclyde University

Barbara Heinzen, London

James Kahan, Rand/AEC

Jaap Leemhuis, Global Business Network, Europe

Hermann Rottinghuis, Stratex Consulting Group

Ragnvald Solstrand, Norwegian Defence Research Establishment

Bernadette Sourbag, Ministry of Home Affairs

Peter Struik, Rijkswaterstaat

Warren Walker, Rand/AEC