# **Chapter 12 Futures Studies and Strategic Planning**

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#### 12.1 Introduction

Futures studies vary all the way from artistic and philosophical descriptions of the future to quantified socio-economic analysis. They differ with regard to their relationship with planning and decision-making, from autonomous studies to integrated parts of a planning document.

In recent years, a great number of futures studies on global, national and regional development have been published. However, few of them have become integral components of planning for the future. Part of the reason has been that the envisioned future has often been depicted "in a vacuum rather than at the end of a path commencing in the present" (Huber, 1978, p. 180). This lack of relationship to planning and policy-making is regrettable especially because an increasing number of private and public organisations regard futures studies as an important and complementary activity to the planning of current operations. For example, an increasing number of urban governments in Sweden and elsewhere have become aware that amid the current political and economic uncertainties, the middle-term planning (normally for 4 or 5 years) has become more and more like crisis management and has to be supplemented by long-term structural studies. Similar examples can be found among the large number of American impact assessment studies and studies of regional and local development in North Western Europe (Holling, 1978; Jain, Urban, & Stacey, 1981).

There is no one single way of developing a model for futures-oriented planning. In fact, there is very little in the literature about how the results of a futures study can be used in operational plans and how futures studies need to be modified in order to be useful in a planning system. An important requirement in such a model, however, seems to be that futures studies should provide perspectives for policies or proposals in a plan.

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Linking futures studies to planning and decision-making processes is not only a matter of providing results to serve as inputs in the processes but also a question of organising futures studies in such a way that the experience of new ways of thinking can be transferred to planners in the course of the studies (Bell, 1997).

Since the first real attempts were made at institutionalising futures research in the early 1960s, a good deal has been written about constructing the images of the future, with emphasis on forecasting, modelling and scenario-generation (Amara, 1974, p. 290), but relatively little is known about how to link these images to the present and to successfully implement the delineated transition strategies. There is hardly any general knowledge or systematic experience about how futures studies are organised.

The aim of this chapter is to examine some important aspects of the relationship between futures studies and planning and to present some models where futures studies have been developed as an integral part of urban planning. The chapter is divided into four sections besides the introduction. The first section discusses differences and similarities between futures studies and planning. The second section presents some features of models that have been found to be useful for connecting futures studies to planning. This is followed by a section describing the experience of integrating futures studies and planning. The final section of the chapter presents some general conclusions about the requirements of imaginative and normative focus in urban planning and the improvement of the conceptual framework and operative features of urban planning.

# 12.2 Differences and Similarities Between Futures Studies and Planning

There are many variations in futures studies as well as in planning, with regard to aims (use of), methods, organisation and presentation of the results. The literature therefore is not unanimous about similarities and differences between these activities. Some authors (Huber, 1978; Schwarz, 1977) feel that the boundary between the two is often blurred, while others point out that there are differences between futures studies and planning (Cornish, 1969; McHale, 1970). But even where conceptual frameworks are presented to illustrate differences between the two activities, it is recognised that in reality the demarcation between them will be far less sharp and that the two approaches should be regarded as complementary (Shani, 1974, pp. 646–648).

In the planning literature various conceptual frameworks have been proposed to distinguish between long-term and strategic planning on the one hand and operational and management planning on the other. A comparison between the conceptual framework constructed by Anthony (1965, p. 67), distinguishing strategic planning and management planning, and the conceptual framework suggested by Shani (1974, p. 647), distinguishing planning and futures studies, show a considerable amount of closeness between strategic planning and future studies.

In this chapter, planning is defined to include a systematic making of decisions, preparation of programmes for their implementation and a measurement of performance against the programme. Futures studies, on the other hand, clarify the range of possible futures and create images of attainable and desirable futures. Defined in this fashion, there is a well-established tradition of middle-term planning in local government in many Western European countries.

This planning system has developed with the growth of the welfare state. As political and economic uncertainties have increased, so has the recognition of the inadequacies of these planning instruments to develop long-term strategies for development. Futures studies at the urban level are of a much more recent date and there is no well-developed approach to these activities. The tendency has been, however, to follow the tradition of futures research with the emphasis on studying a number of alternative scenarios to provide a basis for a public debate and/or for long-term political decisions (Gidlund, 1985, p. 29).

Shani's (1974) conceptual framework showing differences between planning and futures studies (Fig. 12.1) provides a useful starting point for analysing a proper

Characteristic	Planning	Future studies
1. Output	Set of decisions	Background and context for decisions
2. Extent of detail	Fairly detailed	Relatively undetailed
3. Organisational location	Within the policy-making organisational setting	Usually outside the policy-making organisational setting
4. Time element	Relatively limited	Relatively unlimited
5. Involvement in power struggle	High involvement	Low involvement
6. Time-span	Up to 5-10 years	Usually beyond 10 years
7. Techniques	Mainly data-based, rigorous, analytical and quantitative techniques	Mainly methods involving imagination, intuition and tacit knowledge
8. Mode of publication	Internal, occasionally public	Public, occasionally internal
9. Evaluation	Mainly based on performance	Mainly based on anticipation

Fig. 12.1 Schematic presentation of differences between planning and futures studies (Shani, 1974, p. 647)

relationship between futures studies and planning. In fact several of the characteristics have been useful in developing the Västerås and the Concerted Action model. The output of planning activities is a set of decisions to be implemented by the organisation, whereas a futures study results in a knowledge base on which the present policy alternatives can be evaluated. The output of futures studies, if properly handled, can be used as input in the planning process.

Since planning is action-oriented, it has to be fairly detailed, whereas futures studies provide a broad perspective of futures which need not to be detailed. In an organisation where futures studies are used as a complement to planning activities, the degree of detail for both can be adjusted to obtain a proper feedback between the two.

In Shani's (1974) framework the organisational location of futures studies is usually outside, whereas that of planning inside the policy-making organisation. This is one of the central issues for obtaining a suitable relationship between futures studies and planning. If the same persons are responsible for both futures studies and management planning, it is quite certain that routine will drive out analysis. On the other hand, an autonomous group, while being innovative, may lack a real understanding of development alternatives which are more relevant for the organisation. In order to assure the integration of futures studies and planning processes, one can, for example, supplement the internal recruitment of a futures studies group with special project groups, brainstorming sessions and external reference groups.

As regards the time element, planning has to be carried out within time constraints and with reference to the ongoing activities. Futures studies are relatively free from these constraints. Even if the differences in the time available for these two activities is of significance, the use of results from futures studies in the planning process makes it necessary that futures studies be carried out in some kind of temporal relationship to planning.

Planning activities are usually subject to political bargaining, compromise and reconciliation of conflicting interests, whereas the relative independence of futures studies from policy-making settings can remove them from power struggle. However, since normative aspects are inseparable parts of futures studies, it is desirable to involve policy-makers in these studies, provided proper arrangements are made, to take into consideration the subjective values and alternative scenarios are proto cover ideological differences (Khakee & Dahlgren, 1986). Planning is associated with a relatively short time-span, whereas futures studies with a long time-span. The difference in time horizon has not only quantitative but also qualitative implications since in the short-run, the future is viewed on the basis of quantitative and usually linear changes, whereas the long-run is defined by the relative lack of constraints and commitments so that consideration can be given to a qualitatively different society. While there are obvious reasons for the differences in the time-span between futures studies and planning, future scenarios can be so constructed that development is envisioned in suitable time intervals corresponding to the planning periods (Engellau & Ingelstam, 1978, pp. 72–73).

Shani (1974) contends that the most appropriate techniques for planning are data-based and rigorous, emphasising analytic and quantitative approaches, whereas

techniques for futures studies are based on intuition and tacit knowledge. There are, however, many examples of futures studies which successfully combine the use of intuitive and rigorous techniques (Schwarz, Svedin, & Wittrock, 1982, pp. 7–11), whereas planning requires methods involving imagination and intuition as well as quantitative data and rigorous analysis. In fact, there is a considerable common ground with regard to the choice of techniques in policy analysis and futures studies.

In the public sector there is a need to stimulate public debate and increase public awareness of the future. These are among the most important objectives of futures studies. Not only should the results of futures studies be widely available; people should be induced to express opinions in order to enhance their commitment to work on a desirable future (Schwarz et al., 1982, pp. 55–61). In planning participation is regulated by legislation and it is only the affected parties that are encouraged to participate. A systematic citizen participation is, however, necessary, for both planning and futures studies. More recently, environmental concern has paved the way for a more extensive participation in planning for sustainable development.

One basis for evaluating a plan is its (successful) implementation. Plans are evaluated in terms of their costs and benefits. Futures studies are, however, more difficult to evaluate. Eventually, they can be appraised on the basis of their impact on planning and policy-making or in terms of desirable human values. In an organisation where planning and futures studies are regarded as complementary activities, two things have to be kept in mind: (1) futures studies should not be regarded as a direct prolongation of planning activities, or else many of the restrictions that surround planning activities will also be included in the futures studies; (2) futures studies should not become an autonomous activity as their interplay with the policy-making framework might (thus) be easily compromised, making their results unrealistic and of little use in planning and policy-making.

### 12.3 Models of Linking Futures Studies to Planning

Linking futures studies to the present by means of transition strategies has engaged a few futurologists. The models available for this purpose can be roughly classified as either general models, which present guidelines for such linkage, or models for developing specific transition strategies.

# 12.3.1 The French Prospective Model

According to the prospective school, the future is not a part of a predetermined temporal continuity but an entity quite separate from the past. It takes on meaning only insofar as it is related to present actions. The model emphasises the need to isolate 'future-bearing facts' (i.e., factors from which future realities emerge). The future-bearing facts can be used in the construction of alternative futures of, for

example, the local government as well as in the discussion about the alternative futures of urban society (Cournand & Lévy, 1973).

The major features of the model are:

- isolate 'future-bearing facts', provocative ideas and desired goals;
- prepare a creative plan consisting of a series of possible futures based on futurebearing facts and then evaluated them in terms of desirable human and social values:
- derive a 'decision plan' consisting of a series of decisions based on the creative plan and evaluated in terms of present realities, probable and desirable futures.

#### 12.3.2 The Futures-Creative Planning Approach

Ozbekhan's model introduces the concept of 'ideal ends' which are indicative of the most desirable outcomes. The alternative futures are evaluated in terms of these ends. This normative emphasis has been important in deriving a desirable image of the municipal government's future (Ozbekhan, 1973).

The major features of the future-creative model are:

- derivation of 'ideal ends' that are indicative of the most desirable outcomes;
- use of ideal ends as criteria for selecting among alternative objectives;
- use of objectives to design policies.

#### 12.3.3 Futures-Oriented Urban Planning Model: The Västerås Model

The focus of the Västerås model (called after the municipality in Sweden for which the model was developed) has been threefold:

- generate knowledge about the future so as to evaluate possible consequences that action taken in the face of future uncertainties will have on the present;
- enhance the insight of planners and politicians through their direct participation in the futures studies, which would also increase the possibility of implementing the images of a more desirable future;
- establish futures studies as complementary activities to the existing urban planning system.

In order to reach these objectives, the Västerås model emphasises a successive choice of techniques as the issues under study are clarified and as planners and politicians involved in the study obtain better understanding of the approaches to solve various problems. The object of the futures study in Västerås has been to generate several possible futures of the urban services and the urban government (Khakee, 1985).

The Västerås model was constructed as six inter-related operations in order to ensure feedback from the futures studies in urban planning. These activities are:

- review of current planning and decision-making was undertaken by means of a
  questionnaire-survey among politicians in executive positions, heads of departments and other civil servants occupying important positions in the planning
  system. The review brought forward (some) major ideological, methodological
  and organisational shortcomings in the municipal planning process;
- methodological orientation involving brainstorming sessions with politicians and planners in order to elicit their reactions to various methodological issues (as shown in Fig. 12.1);
- back-view mirror analysis in order to: (1) increase interest among the employees in futures problems by letting some of them examine how their own involvement in the organisation's past activities has affected the development of the organisation; (2) provide an opportunity to examine the common ground between past, present and future beyond a few quantifiable variables; and (3) analyse the strengths and weaknesses of the existing organisation (Khakee, 1986);
- construction of alternative scenarios with the use of three techniques: futures autobiographies, scenario writing and trend extrapolation (Khakee, 1991);
- evaluation of alternative futures for the municipal development and urban amenities on the basis of back-view mirror analysis and the alternative scenarios.

#### 12.3.4 The Concerted Action Model

The European Union–financed project, the Concerted Action, had the objective of studying sustainable use of natural resources in southern Mediterranean region. One part of the study was developing futures studies with the help of public and private stakeholders in order to have the widest possible appreciation of the issue in urban governance even after completion of the project. The entire project consisted of three case studies, Tunis, Izmir and Casablanca/Rabat, each with a set of specific objectives (Barbanente, Camarda, Grassini, & Khakee, 2007; Barbanente, Khakee, & Puglisi, 2002; Khakee, Barbanente, Camarda, & Puglisi, 2002). As stakeholder involvement was one of the major concerns in the Concerted Action, the methodological focus was therefore on participatory scenario building.

The method applied was 'future workshop'. Robert Jungk developed the framework in order to allow people to become involved in creating their own preferred future (Jungk & Mullert, 1996).

Future workshop is made up of three major phases, all involving interactive brainstorming sessions. The three phases have the following contents:

- critique phase – dissatisfactions and negative experiences with the current situation; organisation of problems in problem areas and selection of issues of greatest interest by a system of voting;

- fantasy phase – free generation of ideas relating to desires, dreams, fantasies and opinions about the future; selection of a number of ideas for further discussion in the implementation phase;

implementation phase – positive, idealistic, innovative and often seemingly impractical ideas, confronted with the problems defined and elaborated in the critique phase; identification of obstacles and restrictions and of possible ways to overcome them in order to implement feasible ideas.

The Concerted Action model ensures interplay between futures studies and planning in the following manner:

- 'Futures Workshop' to derive alternative, desirable scenarios as well as current premises (possibilities and restrictions);
- use of the scenarios to assess various ways to overcome current restrictions and emulate possibilities;
- design of policies based on the scenario-based assessment.

#### 12.4 Integrating Futures Studies and Planning

In this section we shall evaluate our experience in trying to integrate futures studies in planning, bearing in mind the differences and similarities between the two (see Fig. 12.1).

### 12.4.1 Output and Feedback in the Planning Process

The Västerås as well as the Concerted Action models resulted in a set of preferred future images from which transition strategies were derived. Instead of forecasting the likely trends of development from which goals and strategies are derived, as in conventional planning, strategies were derived from images that represent a rich source of knowledge with a strong input of desirable changes from participants who feel committed to take actions in order to achieve these changes. Backcasting is increasingly seen as an important approach for orientating in an uncertain future characterised by considerable amount of qualitative uncertainty. In the latter case it is difficult to make use of forecasting methods.

# 12.4.2 Techniques: Appreciation and Relationship

The use of Delphi and other brainstorming approaches in the Västerås and in the Concerted Action model requires that the participants have a good understanding of the applied techniques. This implies that the techniques have more lasting impact on the policy as they achieve consensus among the participants. Both models provide an interesting example of the education of the stakeholders in the science and

art of futures studies. An important by-product of these models is the feeling of many stakeholders that the techniques used in futures studies are also useful in the middle-term planning. The techniques function as means of capturing stakeholders' imagination with respect to different issues and encouraging them to think systematically about how to implement the desired images.

#### 12.4.3 Organisation

The fear that the participation of stakeholders, who at the same time have commitments in politics or administration or business or whatever, would result in predomination of the 'present' did not turn out to be the case in these two models. The organisation of various activities (brainstorming, work-shops, interview surveys, etc.), in conjunction with the construction of scenarios, has been an important factor to prevent such a development. Another factor was the use of external advisers with keen interest in future problems; they prevented the abandoning of even future images, even those that were highly improbable or undesirable.

#### 12.4.4 Political Involvement

Political actors have their inner desires about what type of future they would like to have. But they have fears about how far ahead of the mandate period they can commit themselves. Their feelings are continuously re-shaped through interaction with outside realities but also within the futures-making processes. In our two approaches future studies helped in giving politicians new perspective on every-day life issues, far from the rhetoric of contemporary world and in that way, helped them to grasp new ideas for change in real-life processes. As a whole, futures studies seem to have been useful in the shaping of the cognitive and behavioural attitudes of the participating agents. Political involvement meant a higher adherence to real-life complexity and social expectations, inducing fewer uncontrolled results. This implied a relatively more systematic usability of the results from futures studies in conventional planning.

# 12.5 Concluding Remarks

Both the Västerås and Concerted Action studies indicate that in the long run, urban planning benefits from an imaginative and normative focus on the future. Futures studies make decision-makers aware of the great variety of possibilities lying ahead. This is, after all, what good planning is all about.

The Västerås as well as the Concerted Action model provide a self-feeding application of analysis and synthesis, whereby the present processes of the urban society and of the urban government can be constantly guided with reference to the future.

It provides thereby a new framework for decision-making apparatus and a basis for redirecting its institutions.

The two models with their various techniques provide flexible frameworks that enable participants to improvise and proceed step-by-step in an interactive process. In a way the models are examples of organisational or community learning. The participants are not only involved in generating knowledge about the future and its application to long-term planning but also contribute towards improving the operative features of the models. They certainly contribute towards improving the transparency of decision-making.

The Västerås and the Concerted Action model put considerable emphasis on defining what is desirable and on appreciating the inter-dependence between goals related to various policy areas. The application of a process approach to do this proved essential for devising effective links between the present and the distant ideal ends as well as in helping the coordination between sectors.

Both models strongly assert the potentials of future studies not as much as a discipline of forecast of ready-to-come trajectories of change, but as a discipline which is able to throw light on hidden dynamics of change which risk to be overwhelmed by macroscopic processes. In this respect, future studies are able to unveil many nuances between the polarised space of stereotyped future images, and thus display many unforeseen future possibilities through a recombination of identities and desires within non-hierarchical spaces of co-existence.

This chapter presented strong cases for the role of analysis in policy-making. The implementation of the Västerås as well as the Concerted Action models show that the role of analysis in futures studies of urban communities is tremendously important. It is difficult, however, to draw far-reaching conclusions about the relationship between futures studies and policy-making processes from only two models. Further research is required to analyse this relationship especially with reference to the organisational aspects of futures-oriented studies, the choice of approaches and the presentation and utilisation of the results.

#### References

Amara, R. (1974). The futures field: Functions, forms and critical issues. *Futures*, 6(4), 289–301. Anthony, R. N. (1965). *Planning and control systems: A framework for analysis*. Boston, MA: Harvard University Press.

Barbanente, A., Camarda, D., Grassini, L., & Khakee, A. (2007). Visioning the regional future: Globalization and regional transformation of Rabat/Casablanca. *Technological Forecasting and Social Change*, 74(6), 763–778.

Barbanente, A., Khakee, A., & Puglisi, M. (2002). Scenario building for metropolitan Tunis. *Futures*, *34*(6), 583–596.

Bell, W. (1997). Foundations of futures studies. New Brunswick, NJ: Transaction Publishers.

Cornish, E. S. (1969). The professional futurist. In K. R. Jung &J. Galtung (Eds.), *Mankind 2000* (pp. 244–250). London: Allen and Unwin.

Cournand, A., Lévy, M. (Eds.). (1973). Shaping the future: Gaston Berger and the concept of prospective. New York: Gordon and Breach Science Publishers.

Engellau, P., & Ingelstam, L. (1978). *Prognoser och Politisk Framtidsplanering* (Prognoses and political futures planning). Stockholm: Secretariat for Futures Studies.

- Gidlund, J. (Ed.). (1985). *Choosing local futures*. Stockholm: Swedish Council for Building Research.
- Holling, C. S. (Ed.). (1978). Adaptive environmental assessment and management. New York: Wiley.
- Huber, B. J. (1978). Images of the future. In J. Fowles (Ed.), Handbook of futures research (pp. 179–224). London: Greenwood Press.
- Jain, R. K., Urban, L. V., & Stacey, G. C. (1981). Environmental impact analysis: A new dimension in decision making. New York: Van Nostrand-Reinhold.
- Jungk, R., & Mullert, N. (1996). Future workshops. How to create desirable futures. London: Institute for Social Inventions.
- Khakee, A. (1985). Futures-oriented municipal planning. *Technological Forecasting and Social Change*, 28(1), 63–83.
- Khakee, A. (1986). Backview mirror analysis in futures studies. Omega, International Journal of Management Sciences, 14(5), 391–399.
- Khakee, A. (1991). Scenario construction for urban planning. Omega, International Journal of Management Sciences, 19(5), 459–469.
- Khakee, A., Barbanente, A., Camarda, D., & Puglisi, M. (2002). With or without? Comparative study of preparing participatory scenarios using computer-aided and traditional brainstorming. *Journal of Future Research*, 6(1), 45–64.
- Khakee, A., & Dahlgren, L. (1986). Values in futures studies and long-term planning. *Futures*, 18(1), 52–67.
- McHale, J. (1970). *Typological survey of futures research in the US*. Binghampton: Center for Integrative Studies, State University of New York.
- Ozbekhan, H. (1973). The emerging methodology of planning. *Fields Within Fields*, 10(1), 63–80. Schwarz, B. (1977). Long-range planning in the public sector. *Futures*, 9(2), 115–127.
- Schwarz, B., Svedin, U., & Wittrock, B. (1982). *Methods in futures studies: Problems and applications*. Boulder, CO: Westview Press.
- Shani, M. (1974). Futures studies versus planning. *Omega, International Journal of Management Sciences*, 2(6), 635–649.