

INTRODUCING FUTURES RESEARCH: FORECASTING AND SCENARIOS

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Introduction

Each edition of the Yearbook includes a chapter that explores methodological approaches to global civil society from different social science perspectives. These chapters are motivated by a belief that understanding globalisation requires approaches outside the conventional system of social science data reporting and analysis: globalisation creates new institutions, organisations, networks and communities, and their corresponding cultural and behavioural patterns, including problems of many kinds, that transcend traditional policy making. These institutions, patterns and problems not only cut across the nation state and related units, but they increasingly create and reflect social realities that are *sui generis*.

Globalisation is more than the ‘sum’ of national societies and economies or their international aspects. It is something qualitatively and quantitatively different, and something that ultimately challenges the assumed equivalence between nation state, domestic economy and national society. In our opinion as well as those of others (Beck 2002; Detlef 2006), this has profound implications for social science methodologies that require fresh approaches and innovative thinking in exploring how available social science methods can be applied to the study of globalisation.

Consequently, beginning with its inaugural edition, each Global Civil Society Yearbook tackles a distinct methodological issue or approach: we have addressed the operational definition of global civil society (Anheier 2001), developed the Global Civil Society Index (Anheier and Stares 2002), presented geographic information systems (Anheier and Katz 2003), and introduced social network analysis (Anheier and Katz 2004) to the study of global civil society. More recently we have proposed applying comparative historical methodologies such as event structure analysis, qualitative–comparative analysis and fuzzy sets approaches (Anheier and Katz 2005; Katz, Anheier and Lam 2006), and diffusion models (Anheier, Katz and Lam 2007) to the examination of global civil society.

In this edition of the Yearbook, we look at a diverse set

of approaches that are designed to help us understand the future, or possible futures, of global civil society. These approaches and the various methods and techniques they entail are intended to capture past and current trends; anticipate and explore future changes and emerging issues; make predictions on the size, scope and composition of global civil society (supply and demand factors, revenues and expenditures, employment and volunteers, mobilisation potential and influence, and so on); identify enabling and constraining drivers of change; assess policy developments and foresee likely scenarios; and explore options and their implications.

The variety of futures research and analysis methodologies is far too great for us to be able to cover it all here. A range of these methodologies is described in the United Nations University’s Futures research Millennium Project’s methodology manual (Glenn and Gordon 2003). The manual presents more than 20 different methodologies, ranging from the qualitative Futures Wheels to highly formalised statistical modelling such as curve fitting algorithms. We have chosen to demonstrate a small selection of methods that represent two main sub-fields of futures research methodologies, namely, forecasting and scenarios. While both methods are concerned with the future, forecasting is typically an extrapolation of current knowledge about the past and present into the future. Forecasting is about predicting relevant contours and facets of the future of interest to us, and usually does so by presenting a set of estimates and their likelihood of becoming reality. A scenario, by contrast, is a story rather than a prediction. It seeks to connect a ‘description of specific future to present realities in a series of causal links that illustrate decisions and consequences’ (Glenn and the Futures Group International 2003: 4). Scenarios are plausible descriptions of possible futures.

What forecasting is

Put simply, forecasting is ‘concerned with approaches to determining what the future holds’ (Forecasting Principles: Evidence-based Forecasting URL; Armstrong

2001). As such, it can be applied to a number of problems and questions related to planning, policy and economic and social issues generally. Models typically explore the future course of a present social condition, issue or problem relative to particular interventions. For example, forecasting is widely used in the field of demography to examine different population projections¹. Models use past growth trends and patterns to predict the future growth of the general population or specific sub-groups as a result of government policy (such as migration), practices (birth control) or economic developments.

Forecasting is very common in the business world. Economic forecasting is a well-developed field, and several business schools have their own version of an economic forecasting model². For example, the UCLA Anderson Forecast contains historical trend data for a wide range of economic indicators including employment, unemployment, taxable sales, consumer attitudes, new car registrations, home sales and non-residential building permit valuations.

A forecast needs a substantive focus on a set of core themes. What conditions, issues, outcomes and interventions of global civil society would be the focal concern of a particular forecast? Would it be the number of civil society organisations, civic engagement in global issues, available resources to support civil society activities? What policy interventions (such as changes in regulatory frameworks) and external events (the economic climate, natural catastrophes, inter-state and intra-state conflicts), come to mind, and what would the global civil society landscape look like if it were to remain on its present course?

Forecasting approaches and methodology

The field of forecasting has developed greatly over the last two decades, and we can draw on a rich repertoire of forecasting approaches and techniques. Some of these are highly quantitative and demand long time series and numerous observation points for making predictions. Others are more qualitative, even speculative, and involve structured expert consultations and dialogue rather than statistical estimation. Still others combine both quantitative and qualitative aspects and use both approaches in an integrative fashion.

¹ In general, the terms ‘forecast’, ‘prediction’, ‘projection’ and ‘prognosis’ are used interchangeably (Forecasting Principles: Evidence-based Forecasting URL).

² For a business example, the UCLA Anderson Forecast (URL). For a political forecasting example, see the Wharton Business School’s Political Forecasting Special Interest Group (URL).

Quantitative approaches

Quantitative approaches have higher requirements in terms of data availability and quality than the qualitative approaches discussed below. In particular, they require time series data, which are still rare in civil society, although they are increasingly becoming available for non-profit organisations and foundations in some countries (for example, the US, Canada, UK, Germany, the Netherlands, Sweden and Israel); and for other specific variables such as the numbers of INGOs, NGOs with consultative status at the UN, and so forth.

Trend extrapolations and economic forecasting models examine trends and historical data with the help of mathematical techniques to extrapolate the future. These techniques work best with longer time series for predicting short-term futures; they work less well for shorter time series extended into the long term. They are also best suited to fairly stable operating environments that carry ‘developmental inertia’, that is, with variables in the model that change somewhat but not too abruptly.

Many mathematical models and statistical techniques are available for researchers, and the challenge is to select the one that best fits the available data and the expectations of potential users. Among them are smoothing and curve-fitting methods, decomposition and autoregressive integrated moving average (ARIMA). All these models involve finding underlying cyclical and non-cyclical as well as random components that fit time series data to better predict future points as well as extended trend lines.

Simulation models are used to model more complex systems and require more comprehensive and high-level data. Typically, multivariate statistical techniques and probability models aim at predicting future outcomes given a set of current variables, their past trends and known interactions. Based on current knowledge, these approaches simulate future developments of whole systems rather than specific aspects as in most forecasting models.

Cross-impact matrix methods are related to systems approaches and examine relationships between developments and events, recognising that the occurrence of an event can encourage the occurrence of other events or suppress or eliminate them. In other words, events can be interdependent, and cross-impact methods try to estimate the likelihood of events occurring given the presence and absence of other events.

Suppose a study of the future of global civil society, for which a list of relevant future events is examined.

That list might include the following events, each accompanied by an estimate of the initial probabilities that the event will actually occur by a specified time, based on expert judgments or other reliable sources:

- (a) Major natural crises takes place: .25
- (b) Global CSOs experience funding problems: .40
- (c) Global recession sets in: .75
- (d) Global CSO humanitarian crisis response capacity decreases: .25

Next, conditional probabilities are estimated. In this step, the matrix in Table M1 is constructed, where each cell answers the question, 'If A occurs, what is the new probability of B?' For example, the emboldened cell in Table M1 shows the new probability (.85) that a global recession will take place in 2010 if a major humanitarian crisis like the South Asian tsunami of 2005 does actually occur. Since a major crisis like this has tremendous financial implications, it is likely to slow down international trade, and as a result the probability of a global recession should increase compared with its initial probability. The calculation of conditional probabilities (the probability of A if B occurs) can be done using Bayesian mathematics, if the initial probabilities of events A and B are known (Gordon 1994; Wu 2000). Since in cross-impact estimation the initial probability estimates are predetermined, only the two conditional probabilities (probability of A in case B occurs and the probability of B in case A occurs) are unknown. If we assign zero to one of the conditional probabilities, since this is the smallest possible chance that it would actually occur, we can calculate the maximum probability of the second condition.

The resulting matrix (Table M1) therefore shows that a major humanitarian crisis is likely to increase the chances of a global recession and heighten the risk of financial crisis in global civil society, as well as showing the probability of decreased response capacity compared with the initially estimated probabilities that these two outcomes would occur. Naturally, the global recession cannot affect the likelihood of natural disasters, and it will only marginally increase the chances that the world will mobilise in a manner similar to that in the 2005 tsunami.

Once the probabilities matrix is completed, one can conduct simulations of what happens if a specific event or set of events actually occurs (that is, the probability of this event or these events is changed to 1) or doesn't occur (the probability of this event or these events is changed to 0). Assigning a probability of 1 or 0 to a specific event allows us to show how the occurrence or non-occurrence of this event affects the likelihood that the other events in the table will take place. A major weakness of this method is that it does not weigh the time factor in the analysis. Since knowing the time relationship between events is probably just as important as knowing their causal relationship, cross-impact matrix methods that incorporate time lags have been developed (Asan and Asan 2007), and other models also add provisions to account for the order (or sequence) of the appearance of events.

Qualitative approaches

In addition to these quantitative, mathematical and probabilistic models of forecasting, there are a number of more qualitative approaches, sometimes called

'judgmental forecasting' as they involve a mix of 'hard data', individual interpretations and opinions, and even value judgments about the future.

Consensus models involve expert opinions and ways to reach some form of synthesis to represent the forecast. *Delphi methods* are a common form of consensus model, with many variations. They are methods for structuring group communication processes. The aim is to address a complex problem and to reach, if possible, some form of consensus or to establish some demarcation around areas of disagreement. The Delphi method documents the basis and the extent of the consensus or disagreement achieved and shows the process by which it was established over dissenting opinions, if any. There are many different versions of the Delphi method, but it typically involves five steps, as follows.

1. *Selection of Delphi participants.* The selection of Delphi participants has to follow certain guidelines, which are largely dictated by the issue and planning problem at hand. Some issues or problems require broad selection criteria so that all the major stakeholders are included, while others focus on particular expertise and experience. Clearly, the composition of participants has a significant impact on Delphi results. Depending on the purpose, the selection process can emphasise the likelihood of reaching consensus among participants or the probability that areas of disagreement emerge during the process.

2. *Decision on the form of communication.* The process of soliciting opinion and reaching consensus or dissent must be fair and efficient. In some settings, mail questionnaires or web-based communication work well, in others a telephone interview may be sufficient, while in yet others personal interviews and round table discussions are more appropriate. The use of information technology is particularly helpful to enable long-distance communication among stakeholders. For first-time applications, face-to-face interactions in a workshop setting are useful.

3. *Development of a questionnaire or interview schedule.* Typically, the questionnaire includes:

- An opening part that introduces background information on the purpose, organisation, participants and use of the Delphi.
- Key questions relating to the issue or problem

at hand. The questions must make it clear to the respondents what the options are in terms of their assessments and opinions, and the questions must also ask for the reasons or experiences that lead Delphi participants to express one opinion rather than another. The key questions would include specific rankings of the extent to which particular objectives have been achieved, and the effectiveness and efficiency of programmes and activities or of the degree to which agreed-upon changes in governance or performance have been accomplished.

- *Background questions* that solicit information on the respondent as such, such as experience, position, and educational, professional, religious and even political background, as well as other information which might be useful in putting answers into perspective.
- *A closing part* that reminds respondents about the next step in the Delphi procedure and the wider planning process.

4. *Analysis of initial returns.* With initial answers in place, users should examine the range of responses given to the key questions, trying to identify similar opinions, grouping them under one, two or three 'opinion clusters'. These clusters represent summaries of the emerging lines of consensus and divergence in the opinions held by the Delphi participants.

5. *Second (and third, and so on) Delphi round and analysis.* With these opinion clusters in mind, users revise the initial questionnaire and make it available to participants, with a new set of instructions. With the second round of questionnaires completed, the information is analysed. Some Delphi methods require additional rounds. Importantly, once a Delphi method has been established, repeated use is usually much less time consuming and labour intensive.

Delphi process can be used to generate data for a more quantitative approach. For example, a Delphi process can help determine what event should be included in a cross-impact matrix analysis and what the initial probabilities of these events are.

Delphi processes benefit greatly from the application of various techniques that help to qualitatively generate forecasts or to provide data for quantitative forecasts, such as are *PEST analysis* and *SWOT analysis*.

Table M1: Cross-impact estimation

If this event (below) occurs	The probability of this event (across) becomes				
	Initial probability by 2010	1	2	3	4
(a) Major natural crises takes place	.25		.50	.85	.40
(b) GCSOs experience funding problems	.40	.60		.60	.55
(c) Global recession sets in	.75	.15	.50		.60
(d) GCSO humanitarian crisis response capacity decreases	.25	.25	.70	.55	

These are models for analysing internal and external environments to determine which factors should be considered within a forecasting scheme.

PEST (political, economic, social, and technological) analysis forces stakeholders (experts, leaders, policy makers, and so forth) to examine the internal and external environment and to search for relevant political, economic, social and technological factors:

- *Political* factors include aspects of the wider policy and regulatory environment in which civil society organisations operate but also the role of key stakeholders.
- *Economic* factors refer to the long-term prospects for the economy as a whole, in the field where non-profits operate, and include a host of issues such as interest rates, unemployment, income

Table M2: SWOT example: NGOs as trade development partners

Strengths	Weaknesses
<p>1) Grass-roots NGOs</p> <ul style="list-style-type: none"> a) Long-term presence on the ground and trust b) Local cultural, economic and political knowledge c) lower operating costs d) innovative and flexible e) Commitment to the poor and marginalised <p>2) International NGOs</p> <ul style="list-style-type: none"> a) global reputation b) Strong networking, can mobilise resources and expertise c) few political constraints d) experts at influencing public opinion and policy makers <p>3) Business-interest NGOs</p> <ul style="list-style-type: none"> a) have specialised knowledge about trade issues, markets and contacts 	<p>1) Grass-roots NGOs</p> <ul style="list-style-type: none"> a) Limited issue expertise and resources b) May not fully understand market forces c) Hard to link with business or government partners d) Not financially sustainable. <p>2) International NGOs</p> <ul style="list-style-type: none"> a) Advocacy NGOs have limited implementation capacity b) Hard to see past special interests c) fluctuating revenue d) Have a combined government and business 'phobia' <p>3) Business-interest NGOs</p> <ul style="list-style-type: none"> a) Have limited experience with poor communities b) Do not reflect the needs of small firms c) Not sustainable on membership fees alone d) Single-issue organisations
Opportunities	Threats
<p>1) Grass-roots NGOs</p> <ul style="list-style-type: none"> a) Link to local communities, implement some training and encourage participatory development b) Can shift the export focus away from commodities c) Experienced in integrating health and education initiatives in development programmes <p>2) International NGOs</p> <ul style="list-style-type: none"> a) Partner with agencies and governments to mobilise public opinion on trade b) Bring a social dimension that complements the business and data analysis and trade expertise c) Effective partners for trade programmes that address broader issues such as the environment, women and technology <p>3) Business-interest NGOs</p> <ul style="list-style-type: none"> a) Can contribute sector-specific expertise to help producers add value, improve quality and find new export markets. b) Can act as clearing houses for trade information 	<p>1) Grass-roots NGOs</p> <ul style="list-style-type: none"> a) May set up unsustainable initiatives without linking to wider trade development solutions b) Fewer chances to connect poor people with export opportunities <p>2) International NGOs</p> <ul style="list-style-type: none"> a) Can define the dialogue and public understanding of trade issues without the voice and experience of trade agencies b) May miss promising prospects for trade development because of their focus on the marginalised <p>3) Business-interest NGOs</p> <ul style="list-style-type: none"> a) May lobby against one another with policy makers

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Table M3: TOWS strategic alternatives matrix

	External opportunities (O) 1... 2... 3...	External threats (T) 1... 2... 3...
Internal strengths (S) 1. 2. 3...	SO 'Maxi-Maxi' strategy Strategies that use strengths to maximise opportunities	ST 'Maxi-Mini' strategy Strategies that use strengths to minimise threats
Internal weaknesses (W) 1. 2. 3...	WO 'Mini-Maxi' strategy Strategies that minimise weaknesses by taking advantage of opportunities	WT 'Mini-Mini' strategy Strategies that minimise weaknesses and avoid threats

© Mind Tools Ltd, 1995–2009 Source: adapted from Mind Tools (URL)

levels as well as demand- and supply-side aspects, from changing needs for services and expected foundation payouts to the degree of competition and cost developments.

- *Socio-cultural* factors include socio-demographic changes such as population growth and migration patterns, gender issues and value and attitudinal changes that might affect global civil society.
- *Technological* factors, finally, refer to technological developments and innovations in the broad sense. Will they affect civil society organisations by creating new needs, changing the organisations' mode of operation, and creating shifts in costs and revenue? How will technological advances change communication patterns, and the relationships among stakeholders?

Through a deliberation process that takes into account the four groups of factors, participants are able to reach an understanding of potential causal factors and the interaction between such factors. The different factors can also be used to feed other models such as the cross-impact matrix. There are various versions of PEST. The US National Intelligence Council (NIC) in its Global Futures project applies a STEEP (social, technological, economic, environmental and political) model as an instrument to map strategic drivers that should go into the forecast (NIC 2008). STEEP is an elaboration of the PEST analysis which takes into account also environmental factors, such as climate change concerns, global resource constraints, green taxation, sustainability considerations and more. The National Council of Voluntary Organisations in Britain

has used for the last few years a similar model and adds to it an issue-specific group of factors that are relevant in the particular context of forecasting the future of the third sector (NCVO URL).

SWOT (strengths and weaknesses, opportunities and threats) analysis is a way of identifying the strengths and weaknesses as well as opportunities and threats an organisation or project faces. Using the SWOT framework helps direct the attention of experts and leaders, and to focus activities on areas with greater opportunities, while retaining their awareness of its limitations and external threats. Strengths and weaknesses are largely internal factors over which the leaders have some influence; threats and opportunities are external factors over which they have less influence, and sometime none.

A SWOT analysis involves a series of direct questions developed in the context of the planning issue or problem at hand. These questions are answered either individually or as part of a group process. Answers are collected, analysed and interpreted, and fed into the various models such as Delphi, PEST, and scenario models. The example in Table M2 is a SWOT analysis performed by the International Trade Forum regarding engaging NGOs as trade development partners (adapted from Domeisen and de Sousa 2006).

SWOT analyses can be enhanced by using a further development: the Double SWOT (or TOWS) scheme. The TOWS analysis follows the SWOT analysis, where strategic responses to the findings of SWOT results are considered, with an emphasis on matching external opportunities and threats with internal strengths and weaknesses, as illustrated in Table M3. For each

Box M1: Shell energy scenarios to 2050

Scramble reflects a focus on national energy security. Immediate pressures drive decision makers, especially the need to secure energy supply in the near future for themselves and their allies. National government attention naturally falls on the supply-side levers readily to hand, including the negotiation of bilateral agreements and incentives for local resource development. Growth in coal and biofuels becomes particularly significant.

Despite increasing rhetoric, action to address climate change and encourage energy efficiency is pushed into the future, leading to largely sequential attention to supply, demand and climate stresses. Demand-side policy is not pursued meaningfully until supply limitations are acute. Likewise, environmental policy is not seriously addressed until major climate events stimulate political responses.

Events drive late, but severe, responses to emerging pressures that result in energy price spikes and volatility. This leads to a temporary slowdown within an overall story of strong economic growth. Although the rate of growth of atmospheric CO₂ has been moderated by the end of the period, the concentration is on a path to a long-term level well above 550 ppm. An increasing fraction of economic activity and innovation is ultimately directed towards preparing for the impact of climate change.

Source: Shell International (2008: 13)

combination of, say, opportunities and strengths a possible response strategy is suggested. For example, one of the strategies that could be listed in the SO cell of Table M3, based on the SWOT analysis in Table M2, could be to combine the strength inherent in the situated knowledge held by local NGOs (Strength 1b: Local cultural, economic and political knowledge) with the opportunity to develop non-commodity exports (Opportunity 1b) in order to promote new knowledge-based services, such as call-centre services (like those developed in recent years in some cities in India), or advisory services for international firms on entry into local markets.

Clearly, the distinction between qualitative and quantitative approaches to forecasting is mostly methodological. In reality, much forecasting combines qualitative and quantitative approaches and inputs, using both 'hard' data from time series and 'soft' estimations generated from expert judgments and group processes. Cross-impact matrix methods are particularly conducive to mixing qualitative and quantitative inputs.

Scenarios

Scenario building is a narrative forecast that describes potential courses of events and actions. It is in many ways a qualitative version of the cross-impact matrix method, and seeks to analyse the impact of

developments and events on the system as a whole or particular facets of it. Scenario planning typically lays out alternative futures and the events and courses of actions they entail.

Scenario building isn't a new technique. It has been used for nearly 40 years by business, governments and think tanks. A prominent example is the Royal Dutch/Shell Energy Scenarios (see Box M1; see also Shell Energy Scenarios to 2050 URL). After traditional forecasting proved to be a very limiting and limited tool, Shell moved in the early 1970s into scenario planning. As a result, instead of only forecasting the future price of oil, Shell systematically developed a set of credible scenarios about what could happen to the energy market in different contexts. The scenarios and the strategic planning that they engendered allowed Shell to respond effectively and to profit rapidly from the 1973 oil crisis because it was the only firm to see the crisis coming and to prepare for it. Another example from a very different field of action is the story of the Mont Fleur Scenarios project of 1991 in South Africa. In the project, a diverse group of prominent South Africans from various sectors of society and from across the ideological spectrum developed and disseminated a set of scenarios for the South African future in the years 1992–2002 (see Box M2). These scenarios were developed alongside the negotiations that were taking place between the African National

Box M2: The Mont Fleur Scenarios for South Africa

- *Ostrich*, in which a negotiated settlement to the crisis in South Africa is not achieved, and the country's government continues to be non-representative
- *Lame Duck*, in which a settlement is achieved but the transition to a new dispensation is slow and indecisive
- *Icarus*, in which transition is rapid but the new government unwisely pursues unsustainable, populist economic policies
- *Flight of the Flamingos*, in which the government's policies are sustainable and the country takes a path of inclusive growth and democracy

Source: Kahane (1998)

Congress and the National Party, and were presented as possible outcomes of the main dilemmas of the negotiations, such as between reconciliation and revenge. The scenarios informed the discussions by clarifying the potential implications of different choices. The Mont Fleur Scenarios project has become famous, thanks to the role it seems to have played in the transition from apartheid to democracy in South Africa.

Scenarios should be engaging, interesting, challenging and credible, as well as logically consistent with the known facts. Their elaboration should consider the following:

- time horizon for the scenarios
- geographical scope of the scenarios
- organisations, programmes, activities and stakeholders to be involved and addressed
- objectives of scenario sessions and key issues to be explored and
- definition of and deadline for deliverables.

Building scenarios involves a number of steps, such as a brainstorming session to explore different 'drivers of change' (funding shifts, technology, socio-economic factors and so forth); assessing the possible impact of each driver; estimating the likelihood of events, that is, establishing what is very likely to happen and should therefore be included in all scenarios, and what is less likely; and, finally, identifying and focusing on critical uncertainties, that is, drivers whose impact and force may be unknown or difficult to fathom. In a second step, the participants should explore the interrelationships between the drivers, how mutually exclusive and exhaustive possible scenarios are, and whether each

scenario constitutes a different version of the future, and develop engaging and succinct descriptions of each scenario.

Participants then explore, in a series of workshops or meetings, the range of options around each scenario, and how to translate these options into strategic plans or policy recommendations and steps. In the long term, scenario planning will help chart the course of organisations or sectors through learning processes and contribute to system understanding and expertise. In the short term, scenario planning can serve as an effective early-warning system by gauging levels of preparedness for contingent events.

Scenario planning is a participatory process and begins with an agreed-upon focus (for example, a sector or sub-field), a number of actual or hypothesised key developments, and a specified time horizon. In a series of prepared in-depth consultations, the approach is designed to identify underlying 'drivers' and 'triggers' of events, event outcomes, and possible ranges of responses at various levels. Important for scenario planning is the development of best and worst cases, with an attempt to chart likely and beneficial courses of action.

Common steps in scenario planning

Decide on the key question to be answered by the analysis. This makes it possible to assess whether scenario planning is preferable to the other methods. If the question is based on small changes or a very few elements, other, more formalised methods may be more useful (such as the quantitative forecasting models mentioned above). In other words, scenario

planning suggests itself for complex systems with many feedback loops and uncertainties.

Set the time and scope of the analysis. Take into consideration how quickly changes have happened in the past, and try to assess the degree to which it is possible to predict common trends in demographics, elections, business cycles, policy interventions and so forth. Most scenarios have a medium to long term of reference, usually three, five or seven to ten years.

Identify major stakeholders. Given that civil society includes many stakeholders, deciding who will be affected and have an interest in the possible outcomes is a complex task, in particular as past, current, and likely future stakeholders and their interests may be relevant.

Map basic trends and driving forces. These forces or drivers include economic, political, technological, legal and societal trends, at both regional and global levels. Each trend or driver will be assessed to gauge how, why and to what extent it might affect civil society. In this step of the process brainstorming and expert interviews are commonly used, and all trends that can be thought of are presented before they are assessed, in order to capture possible groupthink and tunnel vision.

Find key uncertainties. The various driving forces are then assessed among two axes: degree of certainty or uncertainty, and degree of importance and unimportance:

- All driving forces that are considered unimportant are discarded.
- Among the important driving forces some will be relatively predictable, such as demographic developments. They will play a role in most scenarios, but the scenarios to be developed are typically not based on them.
- Other important drivers will be relatively more unpredictable in the sense that they could unfold and affect other factors differently and lead to different outcomes, for example legislative changes or economic downturns.

Check for the possibility to group and link forces. Typically, drivers do not exist in isolation but are somehow related to others. It is therefore useful to assess whether any linkages between driving forces exist, and whether any impossible scenarios can be ruled out (for example, a major drop in stock values and an increase in foundation assets).

Identify the extremes. If possible, the number of force clusters should be limited to the two most important to allow the scenarios to be presented in a two-by-two diagram, as in Figure M1, with consistency and plausibility borne in mind. Three key points should be assessed:

- *Time frame:* are the trends compatible within the time frame in question?
- *Internal consistency:* do the forces describe uncertainties that can be used to construct probable scenarios?
- *Stakeholders:* are any stakeholders currently in disequilibrium compared with their preferred situation, and will this affect the scenario? Is it possible to create probable scenarios when considering the stakeholders? This is most important when creating macro-scenarios where governments, large organisations and interest groups may try to influence the outcome.

Define the scenarios, plotting them on a grid and chart similar to Figure M1. Usually, but not necessarily, four scenarios are constructed. One possible approach is to include all positive elements in one scenario and all negative elements (relative to the current situation) in another scenario, and then refine the scenarios to develop mixed cases.

Write out the scenarios. Name each scenario with a catchy descriptive title for easy reference, and describe and analyse each in some detail, including 'the why, how and so what'.

Assess the scenarios. Are they internally consistent? Do they represent relatively stable outcome situations or are they transient or unstable? What are the policy implications and calls for action that follow?

Identify research additional needs. Based on the scenarios, assess where more data and research is needed.

Link back to quantitative methods. If possible, and the data situation allows, models can help quantify consequences of the various scenarios, such as non-profit

growth rates, revenue flows or employment trends.

Converge on decision scenarios. Scenario planning is an iterative, almost hermeneutic process. It is useful to retrace the above steps several times until scenarios emerge which address the fundamental issues facing civil society and different stakeholders. Each scenario involves different upsides and downsides as well as policy implications.

An example: the National Intelligence Council's 'Mapping the Global Future' scenarios

The National Intelligence Council's Global Scenarios to 2025 project (NIC 2008) applied an 'intuitive logics' approach to scenario building, which emphasises the qualitative logic of the scenarios and generates plots that stimulate debate between diverse stakeholders. In the process of developing the scenarios, the NIC team used a deductive, structured step-by-step process, beginning in the present situation and ending with a choice of conceivable futures. The process consisted of a series of workshops conducted in various locations around the world over the course of nearly one year. A large number of persons (more than 200 participants from nearly 40 countries) participated in the different workshops.

The process consisted of four major steps:

- Important potential drivers were identified by using the STEEP analytical framework, through desk research and expert interviews. In all nearly 60 drivers were identified.
- Interactive workshops were conducted with the aim of determining drivers' importance and development of scenario logics. The results were synthesised into small set of coherent storylines.
- Scenario affirmation and refinement: the scenarios were presented and discussed at the Global Futures Forum Annual Meeting, and the scenario logics were further scrutinised and refined in a formal scenario affirmation workshop in Washington, DC.
- Finally, in consultation with a group of leading scenario planners and thought leaders, the scenario was discussed and the plausibility and the internal consistency of the scenario plots ensured. Quantification of scenarios was also carried out with the help of academics and commercial futures experts.

At the points of departure for the scenario development process were two focal questions. The first was concerned with attaining a high level of sustainable economic growth in light of a fast-changing geopolitical landscape, and the second considered the future balance of power in 2025 and the potential impact of collaborative policies and frameworks on the global context. These questions guided the discussions during the scenario workshops, and led to the formulation of a two-dimensional matrix around which the scenarios would be structured: (1) economic growth (from constrained to unconstrained growth), and (2) multilateral solidarity (from common cause to cross purposes).

The list of drivers included different issues such as population and demographic change, resources and resource scarcity, technologies and technological change, economic and financial factors, social aspects such as identity and values, issues of governance, and the trajectory and effects of existing and potential conflicts. After workshop participants assessed the drivers' relative importance and potential impact as well as their level of certainty, a list of relative certainties and key uncertainties was developed, accompanied by their likely impacts and consequences. Among the relative certainties, the participants identified the following:

- Emergence of a global multipolar system with increased salience of the BRIC countries (Brazil, Russia, India and China) and others.
- Increase in the relative power of non-state actors – business, tribal and religious groups, NGOs and even criminal networks.
- Continued shift in relative wealth and economic power from West to East.
- Lesser dominance of the US, although the US will remain the single most powerful country.
- Continued economic and population growth – over stretching energy, food, and water resources.
- Continued rapid growth trajectories of the young population in several countries with largely young demographics.
- Increased potential for conflict due to rapid changes in the Middle East and weapon proliferation.
- Weakening appeal of terrorism should Middle East economic growth and youth employment increase.
- Existing terrorists becoming more lethal if technologies continue to be diffused.

Figure M1: Drivers and scenarios

		Driver A	
		Low	High
Driver B	Low	Scenario 1	Scenario 2
	High	Scenario 3	Scenario 4

The following key uncertainties were also identified:

- Improved energy storage, and transition away from oil and gas to biofuels and clean coal.
- Speed of climate change, especially in high-impact areas.
- Return of mercantilism, rise of protectionism and receding global markets.
- Progress in China and Russia towards democracy.
- Regional arms race and greater militarisation following Iran's acquisition of nuclear weapons.
- Middle East stabilisation, particularly a stable Iraq, and peaceful resolution of the Arab–Israeli conflict.
- Capacity of Europe and Japan to manage demographically driven economic and social challenges.
- Global powers working with multilateral institutions and willing to bow to a new geopolitical landscape.

These certainties, their impacts and the possible cross-impacts between different drivers were weighed in a series of workshops and consultations, and the result was four scenarios, listed in Box M3.

Notably, the NIC scenarios take into consideration the role of global civil society actors in the global future. However, a similar process can be developed with a specific focus on global civil society, exposing and taking into consideration the factors that affect the roles and capacities of global civil society and its manifold components in either a defined context (such as poverty reduction) or in global governance systems more generally.

General limitations of scenario planning

Although scenario planning has gained much adherence in financial and policy-making settings, its highly subjective and heuristic nature has attracted criticism from academics. The academic standing of scenario planning would improve if more research were conducted on its comparative performance and its underlying theoretical underpinnings elaborated. To date, the technique is based more on anecdotal than on scientific evidence, and very few academically validated analyses of scenario planning exist (Schoemaker 1993 is a rare example). Furthermore, significant misconceptions remain about its intent and claims.

Scenario planning is primarily a tool for collective learning, reframing perceptions and considering uncertainty in decision making. The utilisation of

scenarios is prone to be affected by the attraction of attempting to predict the future rather than to benefit from the diverse approach promoted by consideration of multifarious feasible futures. Users also face the risk of treating scenarios literally and rigidly as static descriptions of a predetermined future. Users should not try to single out the 'right' scenario but rather should consider the range of possible futures proposed. Another criticism addresses the commonly used two-by-two technique and its tendency to generate overly simplistic arbitrary scenario matrices, forcing complexity into convenient fourfold schemes.

Schoemaker (1998) lists common traps that scenario planners should look out for. He particularly cautions against pitfalls in the scenario-building process, such as team composition and the role of facilitators, and in the decisions at the stage when the framework for the scenarios is determined, such as those concerning the time and scope of the scenarios and the choice between long-term and short-term scenarios, global scope and regional scope, and so forth. Not unlike other futures methodologies, scenario planning processes are prone to political derailing, agenda control, myopia and limited imagination. Safeguards should be included in the process, as well as some measures of accuracy, legitimacy criteria, and consideration of the trade-off between effort and accuracy.

Finally, there is the problem of integrating scenario thinking with the existing planning and budgeting systems in organisations. Most organisations struggle with planning under conditions of high uncertainty and complexity. Budgeting and planning systems are typically based on one specific view of the future, with mechanisms in place to account for plausible changes. To be able to properly use scenarios in organisations, we need flexible organisational schemes and capacities to develop strategies and appropriate monitoring systems (Schoemaker 1998). Hence, scenario planning should be one component of a more complete management and decision-making system.

Conclusion

Most forecasts and scenarios involve a mix of the approaches briefly outlined above; for global civil society, it seems premature to privilege any method at present. Initial work is needed to fathom the feasibility, effectiveness and efficiency of each in terms of input (including cost considerations) and output (ultimately, insights generated and benefits for users).

Box M3: NIC global scenarios to 2025

Politics is not always local

A new world emerges in which dispersion of power and authority away from nation-states brings growth of sub-national and transnational entities including social movements. Growing public concerns about environmental degradation and government inaction empower a transnational network of political activists, and identity-driven groups, enabled by global communications technology, are able to wrest from national governments control over issues of the environment, over which there is a widespread confluence of interests and desires.

Prerequisites:

- Relevance and power of national governments falls in an increasingly decentralised world.
- Non-state actors such as diasporas, labour unions, NGOs, ethnic groups and religious organisations acquire significant power and establish formal and informal relationships with states.
- Communications technology promotes proliferation of identity networks.

A world without the West

New powers displace the West as world leaders; emerging powers will assume a greater role in areas affecting their vital interests, particularly in view of growing burden fatigue for Western countries. Such a coalition of forces could be a competitor to institutions like NATO, offering others an alternative to the West. These alternative coalitions aren't necessarily permanent fixtures of the new landscape, and their cohesion is as likely to reduce given their diverse interests and competition over resources.

Prerequisites:

- Due to lagging growth the US and Europe take protectionist measures against fast-growing emerging powers.
- Singular models of state–society relationships sustain the China–Russia coalition.
- Quest for energy security and strengthened spheres of influence increase tensions between the principal actors in a multi-polar world.

Source: Adapted from NIC (2008)

October surprise

Global inattention to climate change leads to major unexpected impacts, thrusting the world to a new level of vulnerability. Post facto realisation that we have passed the tipping point will be triggered by an extreme weather event and ineffective mitigation attempts. Increasingly limited capacity and fewer options for coping with impacts of climate change such as water scarcities and food crises will preoccupy policy makers. For example, consideration would be given to relocating major financial and governance institutions, such as the New York Stock Exchange, to ensure continuity of operations.

Prerequisites:

- A 'growth-first' mentality leads to environmental degradation.
- Governments lose legitimacy due to failure to handle environmental disasters.
- Technological progress and national policies fail to stop the effects of climate change.

BRICs' bust-up

Increasing resource constraints due to falling number of energy producers and dependence on energy supply from unstable regions (such as the Middle East) are a growing source of conflict. Increased confrontations over other issues, such as trade barriers, will potentially escalate into conflict, exacerbated by misperceptions and lack of communication. Competition from rising powers (Brazil, Russia, India and China) for resources increases the potential for conflict in a multi-polar world.

Prerequisites:

- Steady growth slows due to energy and resource shortages, particularly severe in Asian economies.
- Rising nationalism occurs with energy competition in a zero–sum world.
- A balance of power emerges similar to the one before 1914.

Before futures methodologies can be applied in the field of global civil society, we need to take a few preparatory steps. First, we need to foster an understanding among the leadership of global civil society and the scholarly community of global civil society researchers of the potential benefits of forecasting and scenarios. Then the substantive infrastructure should be improved, on the following lines:

- For quantitative approaches, a full scan of available data, their coverage and their periodicity is needed to get a better sense of what forecasting techniques are feasible and at what frequency and cost.
- For qualitative approaches, an assessment is needed to prepare the key topics, issues, events and drivers that are likely to affect global civil society in the near-, medium- and long-term futures, and develop a plan of how such approaches would work in regional, transnational and global contexts.
- In terms of participation, there is a need to identify the primary and secondary stakeholders as well as the experts who would be involved.
- For dissemination purposes, it is important to specify the primary and secondary audiences internationally as well nationally, and how best to reach them.

Finally, there is a need to develop an organisational structure that can execute a substantial futures project on global civil society. Many global civil society actors and organisations have the skills and capabilities required for such a project. What is needed is the leadership to organise and mobilise them to do so.

Global civil society is a complex set of phenomena, fraught with uncertainties. Its obscure future can be detrimental to its potential to instil change, promote political agency, and humanise globalisation. Scenarios and forecasting methodologies can assist in imagining the potential futures of global civil society, and consequently prepare properly for the possible bumps on global civil society's road towards Creating a Better World (Taylor 2004).

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