Thinking about the Future: Trends and scenarios in Latin America[1]

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ABSTRACT *Francisco Sagasti traces the origins of future-oriented exercises, focusing on the emergence of scenario-building techniques. He suggests that as a result of conceptual and methodological advances, and of a multiplicity of experiences covering many years of experience, there is now a rich set of procedures to anticipate the future. He argues that in Latin America these advances have improved significantly anticipatory decision making that are the essence of planning processes. The challenge is now to more closely relate future-oriented exercises to the messiness and immediacy of political events and decision-making.*

KEYWORDS *scenario building; visions; future planning; coherence; consistency*

Introduction: Future studies and scenario-building

The capacity to think about the future is a distinctive characteristic of the human species. We are the only beings on this planet capable of anticipating events that have not yet occurred and to prepare responses to these hypothetical situations. We can imagine situations that are better, or at least different, from the one we are living and devise ways of approaching these desired futures.

Myths, legends, oracles, tales and fables have been used since time immemorial to exercise this uniquely human faculty. With the emergence of reason and rigorous methods to organize our thought processes, thinking about the future became a more structured activity. Plato's *Republic* was probably one of the first exercises at defining what we may now call a 'scenario' describing the organization of a desirable society and the way it should be ruled, in which the 'philosopher-king' played the major role. Several centuries later, St. Augustine's *City of God* was another exercise of this type, which was imbued with deeply religious feelings and motivations.

The origins of the modern conceptions of desired future states for societies can be traced to the Renaissance. Moore's *Utopia,* Campanella's *City of the Sun* and Bacon's *New Atlantis* offer visions, rather than predictions, that were supposed to stimulate the imagination and hopefully (at least in Bacon's case) to influence rulers. The Enlightenment, and later Positivism, with their belief in the power of human reason and the inevitability of progress, strongly reinforced future-oriented thinking and stressed the cumulative

character of improvements in the human condition. With time, these future-oriented perspectives would lead to the emergence of 'planning' as an intellectual and professional activity, aimed at rigorously describing possible future states and at defining the intermediate steps to reach them.

An 1873 quotation from P.A. Kropotkin, the leading Russian anarchist and revolutionary, may give an idea of the way in which these views were interpreted towards the end of the 19th Century, and how close they are to current conceptions of planning and scenario building. 'Must We Occupy Ourselves with an Examination of the Ideal Future System?' asks Kropotkin in the title of an essay, and then provides the following answer:

> I believe that we must.
> In the first place, in the ideal we can express our hopes, aspirations and goals, regardless of practical limitations. Regardless of the degree of realization which we may attain.
> In the second place, the ideal can make clear how much we are infected with old prejudices and inclinations . Although daring in thought is not at all a guarantee of daring in practice, mental timidity in constructing an ideal is certainly a criterion on mental timidity in practice (Kropotkin, 1970).

Kropotkin's admonition may be considered as a forerunner of contemporary planning methods that use scenarios, and which seek to free our minds from the constraints imposed by past habits and current practices.

During the first two-thirds of the 20th century planning was strongly influenced by forecasting and extrapolation methods, which sought to project historical trends into the future using newly developed mathematical statistics techniques. The planning of military operations during World War II, with its emphasis on anticipating combat situations and on deploying forces to face them, reinforced attitudes towards the quantitative aspects of the planning process and of precisely identifying possible future situations. This led to the emergence of mathematical modelling techniques and of operations research, first in the United Kingdom and later in the United States, to simulate air, land and sea military operations. (Baxter III, 1968; Jones, 1979) Following the war, when many of these techniques began to be applied in the public and private sectors, the advent of computers and software greatly augmented the capacity to project trends into the future, primarily by allowing the use of sophisticated methods to introduce variations into the process of projecting trends, in what is known as 'sensitivity analysis.'

This newly found capacity to amplify the powers of human reason led to a plethora of exercises to predict the future, and devise responses to cope with anticipated disasters or to profit from newly emerging possibilities. For example, in the 1960s Jay Forrester developed the methodology of 'system dynamics' to simulate the behaviour and evolution of complex systems, primarily through the use of a computer language that took into account the interactions between a large number of variables, incorporated feedback loops, and allowed to trace their joint evolution over time. From the rather modest title of his first book, *Industrial Dynamics*, aimed at helping enterprises in their production planning and inventory control processes, Forrester progressed to *Urban Dynamics*, and then to *World Dynamics*. His methodological contributions were used in the early 1970s in the famous report *The Limits to Growth*, sponsored by the Club of Rome and written by Dennis Meadows *et al.* (1993) and Donella Meadows *et al.* (1972). This study sparked much controversy with its dire warnings regarding the perils of excessive economic growth, population increases, resource depletion and environmental degradation, and was considered a leading manifest of the 'doomsayers' in global futures research.

Against these views, other analysts in the 'blue skier' or 'cornucopian' camp used different methodologies to project futures full of promise and possibilities for unending economic growth and indefinite development. Herman Kahn's *The Next 200 Years* and *World Economic Development*, published during the second half of the 1970s, held an optimistic view and projected scenarios in which it was possible, without undue stress on the environment, for most countries of the world to grow and prosper indefinitely. Other studies, such as *The Global 2000* report to President Jimmy Carter, directed by Gerald Barney (US Government, 1979), sought to present a more cautious

and balanced, but nevertheless slightly pessimistic perspective.

While these debates between 'doomsayers' and 'blue skiers' raged on the international scene during the 1970s and 1980s, many groups at the corporate and academic levels were developing more down-to-earth planning methodologies and scenario building techniques to assist corporations, public sector agencies and non-governmental institutions. For example, Russell Ackoff combined quantitative forecasting techniques with idealization methods to develop the concepts of 'interactive planning' at the Wharton School (Ackoff, 1981) John Friend and his colleagues developed in England a scenario building technique to promote consensus (Friend and Jessop, 1969; Friend and Hickling, 1987) Stafford Beer pioneered the use of cybernetic concepts in planning and management (Beer, 1966, 1972, 1975) several Canadian and French teams sponsored by the French Ministry of Science and Technology on 'prospective' and scenarios to assist in technological forecasting,[2] and Fred Emery and Eric Trist combined systems thinking with advances in group dynamics research to develop a socio-technical approach to planning and managing change.[3]

A report published by the Organization for Economic Cooperation and Development (OECD) in 1969, *Perspectives on Planning*, deserves special mention because of its seminal character. This volume gathered in one place the contributions of the leading practitioners, theoreticians and philosophers of long-range planning at that time (e.g. Russell Ackoff, Stafford Beer, Eric Jantsch, Hasan Ozbekhan, Jay Forrester, Dennis Gabor, Rene Dubos, Aurelio Peccei, Salvador de Madariaga, Ithiel de Sola Pool, among others), and helped in the process of cross-fertilization of ideas and practice that would lead to a renewal of planning methodologies (Jantsch, 1969).

Perhaps the most celebrated and widely disseminated approach to long-range planning and scenario building was articulated at Royal/Dutch Shell during the 1970s and 1980s. The strategic planning team at the international headquarters of Shell used scenarios to help 'change the mindsets' of its managers worldwide, making them aware of the transformations that were underway as a result of the interactions between economic, social and political forces at the international and global levels. Among other things, the ideas and reflections motivated by the discussion of the scenarios helped Shell managers to devise rapid responses to the abrupt rises in oil prices during the 1970s, and to their equally abrupt fall in the mid-1980s. With numerous variants, adaptations and complementary activities, the approach that the Shell team developed is now widely used in strategic planning exercises. The main features of this methodology are described briefly below.[4] In parallel, the Secretariat of the Organization for Economic Cooperation and Development organized an influential major study of world trends in the second half of the 1970s under the title 'Interfutures' and under the direction of Jacques Lesourne. This explicitly considered a variety of possible scenarios for the world economy through year 2000 (OECD, 1979).

During the late 1980s and early 1990s, several international organizations and government agencies in high income focused, once more, their attention on futures research. The World Bank established a Strategic Planning Division in 1987 which, among other tasks, began a series of studies to prepare the institution for the post-Cold War era. The Secretariats of the Organization of Economic Cooperation and Development and of the Commission of the European Union established futures research units to explore long-term options and strategies. Similar units were established at the United Nations Development Programme and in UNESCO in the early 1990s. The Government of The Netherlands Central Planning Bureau organized a most interesting exercise on qualitative and quantitative scenarios for the world economy from 1990 to 2015, which was used as a background for a study of the long-term prospects of the Dutch economy (The Netherlands Central Planning Bureau, 1986).

Latin American futures research

In parallel, and sometimes in response, to these anticipatory initiatives in the United States and Europe, several efforts were made in Latin America to develop scenarios and images of the future 17

for the region. There is a futures research tradition spanning several decades in Latin America, whose contemporary origins can be traced to the seventh congress of the Inter-American Planning Society, held in Lima, Peru, in 1969. This event focused on the theme 'America in the year 2000', and the five volumes with the proceedings of that congress constitute one of the earliest regional attempts to begin exploring future development options in a more or less systematic manner.[5]

In the early 1970 there were several attempts through the region to construct 'National Projects' (Proyectos Nacionales), which delineated visions for the long-term development of countries in the region and helped to organize efforts to approach the vision. In Argentina, Angel Monti wrote 'National Project: Reason and Design'(Monti, 1972), and a group led by Hector Ciapuscio at the Universidad de Tucuman proposed 'Guidelines for a new National Project'.[6] Both efforts aimed at a comprehensive redesign of development strategies and institutions, and were – to a large extent – a response to the social and political stagnation experienced during the military dictatorship that ruled Argentina at that time. The military government in Peru produced a long-term (ten year) plan for the country in 1969. This was made more detailed and specific in 1971, and the highly influential Center for Higher Military Studies (CAEM) repeatedly emphasized the importance of the National Project for the development of the country.

Oscar Varsavsky, an Argentinean mathematician exiled in Venezuela, developed in the late 1960s the methodology of 'numerical experimentation' to facilitate the quantitative exploration of alternative futures at the national level. His approach was widely disseminated through the region, and led to the construction of simulation models to experiment with economic and social policies in Venezuela, Chile, Peru, Bolivia and Argentina. He later developed the concept of 'styles of development' and introduced a value-laden 'constructive ideology' and technological considerations into the design of a range of national projects.[7] The prominent Cuban-American economist Carlos Díaz Alejandro, who taught at Yale University, also extrapolated the possible evolution of the Latin American economy in a widely diffused short essay that was published in 1972 (Díaz, 1975).

In the mid-1970s there was also a regional response to the Club of Rome study *Limits to Growth*, which was prepared at the Fundaciòn Bariloche in Argentina by an illustrious group of social and physical scientists under the direction of Amilcar Herrera, and which questioned the basic assumptions behind the model and the results of the Club of Rome exercise. Their report was called *Catastrophe or New Society.* Its starting point was the basic idea that the main problems confronted by the contemporary world were not physical or economic, but primarily socio-political as a result of the unequal distribution of power at the international and national levels (Herrera, 1977).

In addition, during the 1980s several groups in Mexico, most notably at the Fundación Javier Barros Sierra; in Colombia, particularly at the prospective planning unit of the National Council for Science and Technology (COLCIENCIAS); in Peru at the Grupo de Análisis para el Desarrollo (GRADE); and teams in Chile, Brazil, Argentina and Venezuela actively engaged in long-range planning studies. Several of them offered alternative scenarios for the future of their countries and for the region as a whole, although few of them were actually linked to actual government policy making or to decisions on development strategies.[8]

In spite of these efforts, the 1980s were not the most appropriate setting to continue on exploring future development options in Latin America. The crisis experienced by the region during the 'Lost Decade' of the 1980s – which focused attention on immediate problems, mostly of financial and economic nature – displaced the consideration of long-term options and strategies in most governments and enterprises. The setbacks of the Lost Decade were largely attributed to government failures in policy making and to excessive government intervention in the conduct of economic and social affairs. This, added to a post-Cold War context that disparaged any form of government intervention, led to a generalized discrediting of planning in the public and even in the private sector. In this context, futures studies were seen as futile and even suspect.

This situation began to change in the mid-1990s. As countries in the region achieved economic stability and began to look beyond the short-term, and as the positive and negative impacts of global trends became clearly manifest, public agencies, private firms and even non-governmental organizations turned their attention, once more, to the future. The proximity of a new century and a new millennium stimulated renewed interest in speculations about the future of the region, and organizations such as the Latin American Economic System (SELA), the Andean Community, the Economic Commission for Latin America and the Caribbean (ECLAC), the Development Centre of the Organization for Economic Cooperation and Development, the Inter-American Development Bank and the Latin American Vice-Presidency of the World Bank produced several studies on options and strategies for Latin American development. These were matched, in many instances, by reports sponsored by government agencies, business associations and non-governmental organizations. Many of these studies were closely linked to analyses of the impact of global security, political, economic, environmental, social, technological and cultural trends on the prospects for countries in the region. Gradually there took place a shift from scenarios prepared by small groups of experts and used by corporate leaders and high government officials, to scenarios prepared through a broad consultation process involving collaborative dialogue and, in some case, the use of social science research techniques such as focus groups and opinion polls to obtain inputs from citizens at large.

An approach to scenario-building

As an illustration of the way in which scenarios have been used to explore alternative futures, it is interesting to review the methodology used in an exercise by the Canadian International Development Agency (CIDA) in Latin America. Building on the experience of a highly successful exercise conducted to explore the changing nature governance issues for Canada in the information age (Rosell *et al.*, 1995) in 1995 the Americas Division of CIDA launched a scenario-building process to feed into the preparation of a policy framework for its activities in the region.

The major transformations of the international context and Latin America during the 1980s and early 1990s had created a new setting for development cooperation in the Western Hemisphere, which required a careful assessment of future trends in order to devise a sound strategy for CIDA activities in Latin America and the Caribbean. A decision was made to use a variant of the methodology developed by Shell in the 1970s and 1980s, which had been adapted for the exercise on Canadian governance in the information age.[9] The following description of the procedures used to build the scenarios are based on the background material provided by Arden Brummell, and on our own experience in this exercise and other similar ones (see Rosell and Brummell in this edition of *Development*).

The logic of scenarios

By definition, the future is fraught with uncertainties; the farther we try to look into it, the less clear our vision becomes. This is because a very large number of variables and factors interact to shape the sequence of future events and outcomes, and because it is practically impossible to trace all of these interactions and to anticipate their results and consequences. In spite of this basic intuition, however, most people have a tendency to reduce uncertainty by collapsing the multitude of possible futures into a single 'highly probable' outcome, or into a dominant trend. This is particularly the case when we deal with quantitative projections, which usually tend to acquire an illusory precision. At best, we play with variations of such forecasts through some sort of sensitivity analysis, for we appear to have an instinctive bias against embracing – or even tolerating – uncertainty on its own terms.

Scenario-building is a tool that helps us to deal with complexity and uncertainty, primarily by constructing a range of possible alternative futures to be examined. Scenarios expand our minds and enlarge our mental maps, allowing us

to explore a wider range of future outcomes than we would normally tend to consider. They are supposed to stimulate the imagination and trigger a series of 'what if …?' responses that prepare us better to deal with a turbulent, complex and uncertain environment. From scenarios it is possible to work backwards to the present situation, and to identify the sequence of events that could take us from where we are at present to where we would like to be in the future.

Scenarios should not be confused with detailed quantitative projections, which often provide a useful complement to the scenario building process. Scenarios place emphasis on the intuitive grasp of driving forces and underlying trends. A good scenario should provide an impressionistic but coherent account of a possible future situation; it should allow those who read or hear it to quickly grasp and remember it. Good scenarios have a compelling, story-like quality that captivates our attention immediately.

The scenario building process thus combines the freedom to envisage the outer limits of the possible, with the rigour necessary to construct credible and engaging accounts of alternative futures. A set of scenarios must be internally consistent, believable and equally plausible, so as to allow a systematic exploration of alternative futures. Wishful thinking and doomsaying should be avoided and, to the extent possible, it is important to maintain a neutral attitude towards the scenarios that portray different combinations of future outcomes.

Background information

Good scenarios are built on a correct appreciation of the existing situation and of the ways in which events could unfold in the future. This, in turn, depends on having sound background information. The scenarios that were constructed refer to the future of Latin America and the Caribbean, but also took into account their interactions with Canada, the United States and the rest of the world. Because of the nature of the exercise, which covered a large and rather heterogeneous region, it was decided to organize a consultation process with knowledgeable persons from a variety of backgrounds. In addition, as part of the formulation of its policy framework for Latin America and the Caribbean, CIDA had prepared several background reports with information on the regional situation.

A rather extensive questionnaire on the challenges faced by Latin America and the Caribbean was sent to several dozen key people in the region. Their responses were processed, analysed and distributed in advance to the approximately 15 participants in each of the five one-day workshops organized by CIDA in the Caribbean, Central America, South America, the United States and Canada. The discussions at these workshops were based on a synthesis of the answers to the questionnaire.

Workshop participants selected by CIDA officials included people from many different sectors of Latin American and Caribbean societies: from government to mass media, from indigenous organizations to the military, from academia to NGOs, and from local businesses to international financial institutions. They were chosen for their practical knowledge of the region and their extensive involvement with development issues from a variety of perspectives. CIDA covered their expenses but did not offer any fees or compensation.

The purpose of the consultation process was not to identify the direction that the evolution of the region was most likely to take, but rather to build a comprehensive collection of informed views and intuitions on the key issues, problems and variables at play in the region. The background report that emerged from this consultation process was a rather peculiar document that fully reflected this purpose. It was about 50 pages-long and contained several clusters of direct quotes from participants in the workshops. No attempt was made to synthesize or reconcile the various views expressed. No interpretation of the relative weight or prevalence of the various views and opinions was offered. No table of contents or index was provided. As a result, the background report presented a rather overwhelming collection of statements, which provided the raw material for the scenario-building process.

Constructing the scenarios

When the consultation process was completed, a few of the participants in each of the subregional workshops were invited to join the heads of the sub-regional divisions of CIDA in Quito for a two-day scenario building workshop. The 18 participants were asked to read and review in detail the background report of the consultation process before coming to the Quito workshop.

The first evening of the meeting was devoted to a review of the objectives, logic and mechanics of scenario building, and to an overview of the procedures to be followed during the next two days. The eight stages of the process are briefly described below.

Key past developments

Each participant was first asked to identify three or four major changes that had taken place in the social, economic or political situation of the region over the last decade. When all were done, every change was read aloud, written down on a yellow 'post-it' square of paper and put up on a board facing the whole group. A few participants were then asked to group the resulting seventy or so pieces of paper as they saw fit, while the others enjoyed a coffee break. When the meeting was reconvened, the whole group reviewed the various clusters and participants were invited to modify them by transferring squares from one cluster to another. This was repeated several times until the result satisfied everybody.

The same procedure was followed for developments that had taken place in the past one or two years, which might indicate shifts in direction or emerging trends. All suggestions were considered and no contribution was disregarded or eliminated at this stage. As a result, seven clusters of key developments were identified: regional political trends, paradoxical evolution of culture, global political trends, social dynamics, US political influence, new economic paradigm, and economic globalization. After transcribing these results carefully, the 'past' was then put aside for a while.

Key future trends

A similar process was followed to identify possible future changes and trends. Participants were invited to identify three or four important changes they expected would take place in the region and have an impact on its development. These were also written on post-it squares and put up on the board. Four participants were selected to categorize and structure the dozens of changes and trends that were identified, even though they were left free to decide on the number of clusters, the criteria used to define them, and the positioning of each cluster relative to the others.

The whole group reassembled and had a look at the picture that emerged from the clustering exercise. As was done for key past developments, participants were invited to modify the clusters by transferring notes from one to another until everybody was satisfied. Nine clusters emerged from this analysis, each grouping between seven and 15 changes and trends: the influence of United States and Canada on the region, regional integration, global political economy context, regional economic context, culture, key actors within the region, governance, social dynamics and environmental concerns.

Variables and outcomes

The next step involved the identification of the key variables that were at play in each of the clusters, an exercise in which the whole group took part. In all, 18 variables were identified, including US domestic policies and their consequences for the region, regional integration processes, distribution of power within societies, role of the state, environmental management and overall economic growth rates, among others. A small team of participants then grouped those variables that were related to one another.

The group was then divided into two, in order to make sure that all participants would be actively involved in the discussions. Both sub-groups followed the same procedure, which began by identifying two specific outcomes resulting from changes in each of the variables. These outcomes were written on post-it notes and put on the board. 21

For example, *trade policy in the United States* could turn protectionist reflecting isolationist tendencies, or it could become more open reflecting a 'good neighbour' attitude towards other countries in Latin America and the Caribbean; *environmental management in the region* could improve to ensure the sustainable use of natural resources, or it could maintain a policy orientation that damages and deprecates the resource base; and *political and economic power* could be even more unequally distributed at the international and national levels, which would lead to conflicts between countries and seriously threaten democracies in the region, or power relations could instead become more balanced and egalitarian, which would lead to increased international cooperation and to the consolidation of democratic practices.

The next step consisted in arranging the outcomes logically, grouping the different post-it notes into consistent sets. The various sets of outcomes had to make sense as a whole, even though at this stage no arguments were provided – or requested – to justify and explain the specific logic of each set.

Stories

Each sub-group then set out to invent stories about the clustered outcomes. First, it was necessary to agree on the order in which each variable and its outcomes came into play. Some discernible lines of argument began to emerge from the various clusters of outcomes, although these were not spelled-out as yet. Next, to make the transition from the underlying arguments to explicit and credible stories, two persons from each sub-group were asked to improvise a tale based on the various sets of outcomes posted on the board. They were given some 15 minutes to review the material, after which they told their stories to other participants.

The two sub-groups then met to confront their stories. One of them had come up with scenarios that reflected positive and negative developments, while the other had produced stories with several inflexion points and twists in their lines of argument.

Consistency check

The whole group then proceeded to check the plausibility of the stories. This involved two steps. First, a search for internal inconsistencies, such as weak links between outcomes, variables and trends, poor articulation of the various outcomes, or gaps in the story line. Second, each story was examined in view of the past events and trends identified at the very beginning of the process: to be credible, a scenario has to flow from the past, through the present and into the future. These two checks led to no significant amendments to the four stories produced by the sub-groups.

Overall coherence

The participants were then asked to look at the various stories as a single whole, so as to identify common threads that ran through all of them. Only at that stage, and after lengthy discussions, the group agreed that two clusters of variables appeared to determine the flow of the various story lines: the international economic context and domestic governance. The four scenarios that emerged were associated with combinations of positive and negative developments in each of these two clusters of variables.

Names

The group then set out to name the scenarios. This is more important that would appear at first. For the scenarios to have a vivid quality, they should have names that clearly and strikingly convey their inner logic. Only after a long and intense discussion consensus was reached on four names: the Flight of the Condor, the Wounded Dolphin, the Caged Parrot and the Rising Phoenix. The Caged Parrot was renamed the Caged Jaguar subsequent to the exercise.

Transcription and publication

At that stage, the only physical trace of the scenarios were 15-minute recordings of the stories as told by the four participants who had been selected by the sub-groups. The rapporteur of the workshop

was then asked to produce a final version of the scenarios respecting faithfully the story lines developed at the Quito workshop. However, he was also asked to expand and complement the scenarios using all the material on past developments, future trends, variables and outcomes that was produced at the workshop. Various versions of the transcribed and edited scenarios were circulated for comments, edited and finally published as a booklet with a brief introduction on recent developments in the region.

Working with scenarios

The process followed to construct the scenarios relies heavily on the collective knowledge and intuitions of well-informed persons from a wide diversity of backgrounds, rather than on detailed analyses of specific trends prepared by individual experts. The scenario-building workshop in Quito was designed to promote interaction among the participants, to stimulate their imagination and creativity, and to explore the ways in which events may unfold and shape the future of Latin America and the Caribbean. The scenarios were not the result of an abstract planning exercise that postulated two categories of factors that condition the future of the region (international economic context and domestic governance), and then proceeded to derive from them four scenarios through mechanical deduction. The process was more laborious and uncertain, and even though each workshop participant came with his own views about the future of Latin America and the Caribbean, they left the meeting with new perspectives and expanded mental maps. In addition, it is rather interesting that the great diversity and complexity of the issues under consideration, which led to lengthy and spirited discussions among participants, eventually converged into four scenarios on which all could agree.

The scenarios helped the Americas branch of CIDA in the process of designing its programme of work in the Latin American region in the late 1990s. For example, the emphasis laid on domestic governance led to the establishment of programmes to support public sector reforms in various countries, and in some cases (Peru, for example) to support non-governmental organizations that promoted democratic governance and institutional reforms. Their widespread dissemination also helped to motivate public agencies in the region to engage in their own scenario building exercises. Yet, CIDA's foray into scenario building exercises was not exempt of controversy. A Canadian NGOs severely questioned the participation in one of the scenario building workshops of a former army officer from a Central American military regime noted for its human right abuses, and tried to discredit the whole scenario building process.

Concluding remarks

I have traced the origins of future-oriented exercises, focusing on the emergence of scenario-building techniques. As a result of conceptual and methodological advances, and of a multiplicity of experiences covering many years of experience, there is now a rich set of procedures to help us in exercising our uniquely human faculty to anticipate the future. In Latin America these advances and experiences have led to a large number of initiatives, particularly during the last decade, that have improved significantly our capacity to make the anticipatory decisions that are the essence of planning processes. The challenge is now to more closely relate future-oriented exercises to the messiness and immediacy of political events and decision-making.

Notes

1 This essay is based on a draft paper prepared jointly with Jean Daudelin, professor at Carleton University in Ottawa, Canada.

2 See, Emery and Trist (1973) and the undated report prepared by a team led by Pierre André Julien (Julien u.d.) from the 'Groupe de Recherches sur le Futur' of the University of Québec.

3 Eric Trist developed this approach at the Tavistock Institute, the Wharton School of the University of Pennsylvania and the University of York, Canada,

4 For a description of the Shell approach to scenario building see Wack (1985) and de Geus (1988). For a highly readable account of scenario building techniques in the Shell mode, see the book by Schwartz (1991). Schwartz was a member of the Stanford Research Institute team that worked closely with Royal/Dutch Shell during the 1970 s and is now the President of the Global Business Network.

5 See the five volumes edited by the 'Sociedad Interamericana de Planificaciòn' and published by the Instituto Peruano de Estudios de Desarrollo, Zuzunaga Flores, Carlos (2000) The volumes cover the social situation in Latin America in year 2000 (edited by Horacio Godoy), national and international politics in Latin America in year 2000 (edited by Kalman Silvert), economic integration and development (edited by Claudio Véliz), the new Latin American culture (edited by Harvey Perloff), and demography and planning in Latin America (edited by José Donayre).

6 The feeling of frustration was captured in Hector Ciapuscio's preface to the report: 'We have almost no time, this we all agree on. Either we project and carry out a great enterprise, our enterprise, starting now, or others will finally consummate their own project on us, over what will be left of our shamed will.' (p. 4, our translation).

7 For a more complete account of the approach and some applications see: Varsavsky (1971) and 1973)

8 See www.agendaperu.org.pe.

9 The services of Dr. Arden Brumell, a member of Shell's Canadian subsidiary, were retained to assist the CIDA team in charge of the scenario-building process. Dr. Arden Brumell now heads Decision Futures, a Calgary-based consulting firm that specializes in scenario building (see his article in this edition of *Development*).

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