Scenarios as Seen from a Human and Social Perspective

ELEONORA BARBIERI MASINI and JAVIER MEDINA VASQUEZ

ABSTRACT

This article examines how scenarios can be more than a futures studies tool, and looks at the necessary epistemological, methodological, and ethical criteria for such scenarios. The aims that guide scenarios and, hence, those that can spring from a human and social perspective are considered. In the authors’ view, scenarios tend to broaden mental frontiers because they are multidisciplinary, multidimensional, and drawn from different experiences, “ways of knowing” and personalities. An overview of the various ways of planning and developing scenarios is presented on the basis of the recent literature on the subject. The overview is followed by a presentation of the basic procedures culled from the authors’ own international experience. The need for adaptation and the recognition of differences, such as regional variations, are also highlighted. Common characteristics are described with some illustrative cases, for example, the futures-thinking exercise undertaken by a major religious order. Indeed, the cases reveal how the scenario-building procedure may be adapted to different contexts given its flexibility. The essential message is that the effective use of scenarios requires humility, adaptability, and persistence.

Scenarios: Something More Than a Tool?

Lately scenarios have become increasingly popular. Indeed, they have come to be considered above all as a technological instrument, and are used as yet another consultancy tool. Of course, in fact they are, but as such they have become a sort of Swiss pocket knife of multiple uses, or a magic wand that supposedly makes it possible to rapidly visualize the future, like a soup to be served up quickly at table. Consultants and professionals with 1 or 2 years’ experience behind them embark on carrying out exercises, very often without distinguishing the terminology or fully understanding futures studies.

We might describe what is happening now by a metaphor: scenarios are like a tool, for example, a hammer. However, this hammer is not used in the same way by a carpenter to make furniture, by an artist to shape a sculpture, or a madman who uses it to bang people over the head with! The fact that a beginner handles a hammer does not make him a carpenter or a sculptor. Because certain criteria are required, certain experiences and know-how to carry out a job, and understand different contexts to use
the tool correctly. In certain cases it may be indispensable to lay the accent on quantification and modeling; while in others this will be irrelevant. In certain circumstances it may become necessary to reduce costs; and in others, it may be impossible to apply simple methodologies. In a word, a basic minimum process is required as well as a certain capacity to identify the particular needs that will make it necessary to lay the emphasis on some aspect rather than another. It is necessary to master the exercise. This does not imply denying beginners access to know-how, but rather showing that scenarios requires an adequate training. An extremely professional futurist is potentially a positive leader for the community. However, someone playing at being a futurist or a futurist without ethical bases may be highly manipulative or superficial, and thus, may bring a negative influence to bear on the community.

For these reasons, it is necessary to develop knowledge of the criteria required for using scenarios further. In this sense, the present article attempts to summarize our collective experience in this regard (20 years in one case; 10 years in the other). Accordingly, we will describe the method employed in such professional practice, the theoretical context on which it is based, the differences compared to other approaches, some illustrative cases, and above all, the principles and criteria that we have learned to make the best use of one of the most widely used methods of medium- and long-term futures studies.

Knowing the Underlying Logic and Aims of Scenarios Dealt With a Human and Social Perspective

Today’s leaders, regardless of their field, and all those called upon to make decisions in situations of great uncertainty, require knowledge and understanding to anticipate the context in which they have to act. Before taking a decision regarding the future, they should prudently examine its socio-economic context at global, regional, and national levels. In a world in which changes are taking place at an ever-faster rhythm in many areas of social and human life with growing interrelations between geographic areas and interests, clearly it becomes essential to broaden or extend the mental horizon. If we fail to “capture” the breadth and impact of these interrelations, we may encounter problems largely due to the rapidity of the processes of transformation and not necessarily to the defects or failures of any one of them.

These leaders are not only corporate managers or well-known politicians. They may also be leaders in education or in religious communities, planners at the urban and regional level who are required to answer for the development of their territories. They have in common the fact that they are not guided necessarily by the logics of the market or by political-electoral expediency. They go beyond economic growth or political power (by definition, short term), seeking to generate human and sustainable development, and common well-being at the long term. The tools that they use are neutral; i.e., they are neither good nor bad in themselves. It is clear, then, that the use of scenarios has a great deal to do with the focus given to them.

Contact with futurists of different traditions from all over the world and the experience of Eleonora Masini over long years in the International University of Dubrovnik, the Gregorian University in Rome, contact with international organizations such as the World Futures Studies Federation, UNESCO, the International Association of Sociology, among others, has shown that very often the box of tools is not sufficient to generate an ethically better future. New approaches are required. For example, a glance at the production of non-Western futurists, coming from developing countries in Asia, Africa, and Latin America and from Eastern and Central Europe reveals that it is
indispensable to bear in mind their methods, problems, and values, and to listen to
to their visions of the future. This is how human and social futures studies first arose, as
an alternative for those persons seeking to explore the ethical, cultural, and educational
roots of futures studies further. This focus maintains many points of contact with the
French school, especially with the work of the pioneers of the first generation (Bertrand
de Jouvenel and Gaston Berger), while at the same time receiving vast subsequent
influences and transcending it. Their objective, “social building of the future,” implies
taking a step forward. Now, besides the will to act, their objective includes the need to
develop awareness and create skills to define and project the future in the desired
direction, as ethically compatible with a human and sustainable development and hu-
mankind. Building the future implies carrying through vast and difficult educational
processes and processes of culture transformation while at the same time carrying out
exercises of anticipation. It means making futures studies a fundamental tool so that
we are subjects of change and not objects of destiny or victims of the “manipulators
and colonisers of the future.” Accordingly the specific nature of human and social
futures studies compared to other approaches draws on: the role of visions in the
identification of a desirable future; the importance ascribed to the influence of present
and future values in the analysis and building of reality; and the futurist’s role in the
“building of society.”

This approach is considered appropriate for developing countries or for interna-
tional organizations, above all those working on development. In this context, the
scenarios must be adaptable, and above all, must represent a method of cultural mediation
and conflict negotiation. In development management, we come up against the
difficulty of obtaining complete information and of always using rational processes
regarding the taking of decisions. It is necessary, however, to procure greater know-
how and to learn to decide better. To look towards the future, knowledge is essential.
For these purposes, scenarios have as their objectives: pinpoint priority issues in terms
of problems and opportunities; identify the main actors in relation to the key variables
and their strategies; provide educational and operational bases for strategic management.

In this sense, scenarios permit the establishment of communication between people
who do not understand each other, the identification of actors and objectives to compre-
hend the roots of conflicts and to come up with creative, shared solutions. Scenarios
make it possible to broaden mental frontiers and to develop a greater open-mindedness
towards new knowledge. They are multidimensional in various senses, they necessarily
bring together different experiences and personalities. They constitute an interdisciplin-
ary and multicultural exercise. By means of the combination of rational and intuitive
methods they allow a “clinical” approach to reality and a more human concern: to help
build a better world.

Representative Methodologies for Scenario Building

There is no single way of planning scenarios. The European Meetings in 1993 and
1995, organized by IPTS (Institute for Prospective Technological Studies) and LIPS
(Laboratory for Investigation in Prospective and Strategy), for example, allowed us to
see in action many of the most valid representatives: Ian Wilson, Pentti Malaska, Ute
Von Reibnitz, Robert Ayres, James Ogilvy, and Denis Loveridge [1]. In fact, the
methodological status of scenario planning remains uncertain. The various practices or
modes of processing scenarios and putting them into action differ according to the
relative importance ascribed to the different “methodological ingredients.” even when
they share a common thought structure/analysis of the problem and of the strategies
of the actors, identification of the trends, and uncertainties and the building of coherent scenarios.

For Fabrice Hatem [2, 3], the building of scenarios is a discipline halfway between intuition, logic, reflection and action, rhetoric, and science. Schematically, the literature on methods is gathered around three poles: art, mathematical formalization, and method. The first focus is derived from the concept of intuitive logic, developed primarily by Ian Wilson and the Stanford Research Institute, and thereafter successfully applied by the Planning Group of the Shell Oil company, led by Pierre Wack and Arie de Geus. The work of Peter Schwartz in 1996 entitled, “The Art of the Long View,” provides a good example of this approach, characterized by its emphasis on pragmatism rather than abstraction. In Schwartz’s book, the futurist’s common sense and practical action of the futurist take the place of a detailed description of formalized tools. The author describes at length a number of concrete examples such as young people in the year 2000, the future of the world economy, three scenarios for the United States, etc. In these examples, he also comments on the origin and repercussions of each one. It could be said that here the writing of the scenarios takes the form of a literary practice, above all an art and a state of mind for which no single “definitive” method exists. Other authors following the same line are Kees Van de Heijden, Adam Kahane, J. P. Leemhius, and Paul Shoemaker. For these authors, scenarios are first and foremost a technology, which originated first of all as a method of military planning and thereafter adapted to entrepreneurial contexts and more recently to political level. They seek to stimulate debate on the future and facilitate conversation on what is happening and may happen in the world around us. The authors consider that no single standardized methodology exists for the development of scenarios, and believe that they are rather a process that draws on the knowledge and creativity of the participants to constructively work out alternatives, expressing and analyzing ideas in a free and creative environment.

However, there is a second approach that insists on the mathematical methods for building scenarios. This approach has been powerfully influenced by the calculation of probabilities and operational research. This is laid down by Michel Godet, primarily in his works “From anticipation to action” [4] and in the “Manuel de prospective stratégique” [5]. The main aspect of Godet’s approach is the identification of a process that brings together different techniques, frequently formalized (cross impact matrices, structural analysis, etc.). Its main merit consists in having made an original synthesis between the approach of North American futures studies in the field of formalized methods and that of the French school, tending more to analysis of the actors’ strategies. Godet’s outline has had a tremendous influence in the French and Latin American context from the 1980s onwards. It basically proposes a single general method for the construction of scenarios.

The SRI-Shell method is usually oriented towards specific decisions, and does not dwell on the analysis of the probability of specific events occurring. On the other hand, the strategic forward-looking method is more open and undoubtedly complex, devoting a great deal of time to identification of probable futures, even when—according to Godet—this may be “cut down” if the circumstances so require. Despite this, these two approaches do share a process in common, although they differ in the number of stages laid down. Hatem gives an interesting comparative picture of these two approaches (Table 1).
**TABLE 1**

<table>
<thead>
<tr>
<th>Strategic “Prospective”</th>
<th>Strategic planning by scenarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michel Godet</td>
<td>Peter Schwartz</td>
</tr>
<tr>
<td>1 Delimitation of the system</td>
<td>1 Everything starts from a strategic decision to explore</td>
</tr>
<tr>
<td>2 Identification of key variables (structural analysis, Micmac method) environment</td>
<td>2 Identification of key forces of the global environment</td>
</tr>
<tr>
<td>3 Analysis and explanation: past trends, seeds of change, set of actors</td>
<td>3 Identification of past trends in the global environment</td>
</tr>
<tr>
<td>4 Fundamental hypotheses on the key variables and sets of actors (Mactor method)</td>
<td>4 Create a hierarchy of the order of importance according to their motor role and their more and less uncertain nature.</td>
</tr>
<tr>
<td>5 Choices of probable futures (SMIC method)</td>
<td>5 Select the logic of pertinent scenarios</td>
</tr>
<tr>
<td>6 Building of scenarios (paths, pictures, etc.) (morphological analysis)</td>
<td>6 Write scenarios on the basis of logical arguments</td>
</tr>
<tr>
<td>7 Strategic alternatives (Multicriteria Method, Multipol)</td>
<td>7 Develop the practical implications of the scenario for decisionmaking</td>
</tr>
<tr>
<td>8 Plans of action</td>
<td>8 Select “advanced” indicators capable of anticipating the realization of one or other of the scenarios</td>
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**Knowledge and Know-How: The Scenario Method According to Human and Social Futures Studies**

**BASIC CONCEPTS**

In the classic sense, it is accepted that scenarios report the description of a future situation and the path or series or succession of events that make it possible to arrive at it from the present. Scenarios are understood as instruments for making decisions in situations of rapid social change and complex social interaction. As such, they seek to lower and manage the level of uncertainty and error. They describe a number of future alternatives, make it possible to analyze joint and interrelated problems. They facilitate better knowledge among members of the deciding group in terms of its strategic subjects, and thus possesses an important educational function that sensitizes the group to the coming situation.

Scenario building is an exacting process because it combines history, sociology, group psychology, and statistics, for example. Scenarios require an iterative and sequential process of perception of social changes over time. Their scientific nature is ensured by an ex-post evaluation and the social scientific grounding of its data base. Scenarios are a critical process, of training and anticipation. Flexible, they may be changed as they are being drawn up; hence, new combinations may be sought constantly. Scenarios are participative—a lesson in humility—and use many different methods. They must be adapted and revised periodically and permanently, but are a cumulative process that makes it possible to return to the departure point to reanalyze and enrich the perception of reality. Decision makers should be told that creating scenarios means carrying out an ongoing process. The ethical course is to give all the possible alternatives because choices for the future is a moral responsibility. All in all, it is a humble process that attempts to “evaluate how the patient is doing” and what the present and future state of a social system is.
TABLE 2
Sequence of Stages

| Building of a database (description of the system chosen in the present) |
| Delimitation of the system chosen and of its general context by means of interviews, questionnaires, seminars of specialists, brain storming sessions, etc. (it is important not to widen the context too much). |
| Description of the system and its components: |
| Identification of variables—internal to the system |
| Identification of key variables by a group of decision makers. |
| Identification of the factors of breakdown. |
| Identification of the actors in the present and in the past and of their strategic decisions (this requires a rereading of the key variables, and calls for documentation). |
| Formulation of key questions or hypothetical scenarios (if X, then Y—they cannot be drawn up beforehand). |
| Building of scenarios and definition of the temporal horizon (e.g., trend, utopian, catastrophic, normative and, if necessary, contrasting scenarios need to be drawn up). |
| Identification of the actions required by the various scenarios (complete with cost:benefit ratio of each decision). |

METHODOLOGICAL PROCESS

Reflection should identify above all: what is changing? What can change? (variables) Who can bring about the changes? (actors) What needs to change? The sequence of stages follows the general bases of the exploration of complexity and uncertainty, in agreement with the theories drawn up by West Churchman, Donald Michael, Donald Schon and Yehezkel Dror [6] (Table 2 and Table 3).

CHARACTERISTICS AND INFLUENCES OF THE HUMAN AND SOCIAL FUTURES STUDIES APPROACH

Characteristics

It may be said that the Masini method has received influences from the various methods of scenario building listed thus far. It shares with the French tradition the operative rigor, emphasis on the set of actors and the exhaustive search for alternatives; flexibility and practicality of the SRI and the Shell Planning Group, because the aim is to design a method that may be handled and understood by the largest possible number of persons and not by a restricted minority of specialists only. Given that it shares the same stages as the other approaches, its difference from them may be pinpointed rather in the criteria used, which in turn, constitute its fundamental contribution, namely:

1. **Humility**: in other words, remembering at all times that drawing up scenarios is an ongoing and provisional quest for new data and comparison of perceptions with reality;

2. **Flexibility**: given by the ease of correcting, reconsidering, turning back, a question that is not so obvious for example in Michel Godet’s methodology, conceived in a linear manner, in which once the structural analysis has been completed, it is extremely complex and costly, both in time and money to revise its results;

3. **Rigorous back up**: in that the idea is to start off from a data bank as complete as possible based on a rigorous exploration of existing knowledge, originating above all from the social sciences. Also the aim is ongoing feeding, as new variables and areas of uncertainty arise.
TABLE 3
Types of Scenario

<table>
<thead>
<tr>
<th>Extrapolative and normative scenarios: Erich Jantsch</th>
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<tbody>
<tr>
<td>Extrapolative scenarios use data referring to the past and present bearing in mind what is possible and probable.</td>
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<tr>
<td>Normative scenarios are projected from the future to the present, and thereafter back to the future again.</td>
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<tr>
<td>Extrapolative scenarios can also be normative when, in addition to what is possible and probable, they also contain what is desirable.</td>
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<tr>
<th>Probable and desirable scenarios: French school</th>
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<tr>
<td>Probable scenarios correspond to what will happen in the future, knowing the activity of the actors</td>
</tr>
<tr>
<td>Desirable scenarios indicate the horizon to which we must direct our efforts if we want things to change significantly and if we aim to go beyond the prognostics of the probable scenario, providing a solution for the problems arising in the system.</td>
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<thead>
<tr>
<th>First- and second-generation scenarios—Shell-SRI school</th>
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<tbody>
<tr>
<td>First-generation scenarios are usually exploratory and possess the following characteristics:</td>
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<tr>
<td>help to obtain a better understanding of reality and to be able to ask better questions;</td>
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<tr>
<td>do not provide further help in decisionmaking;</td>
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<tr>
<td>strive for understanding not action.</td>
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<tr>
<td>Second-generation scenarios are based on a solid analysis of reality:</td>
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<td>they change the assumptions or suppositions of those taking decisions on how the world works and oblige them to reorganize their mental models of reality;</td>
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<tr>
<td>they are thus educational tools, because they work on the inner mechanisms or the internal world of the decisionmakers.</td>
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<tr>
<th>Trend, Optimistic, Pessimistic, and Contrasting Scenarios—H. Kahn and Human and Social Futures Studies</th>
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<tbody>
<tr>
<td>Tendential-inertial or Trend scenario: described the prolongation of the present situation: what is present now. It presupposes no change, as if everything were to continue constant, exactly the same, and should be carried out in as great detail as possible, with scientific rigour, encompassing all the variables in the system. It tends to be demoralizing and produces psychological and ethical crises, because generally it reveals that things are not going well. However, it does not show structural changes. It does, nevertheless, provide the basis for referring to changes. It is the “hard core” scenario, methodologically speaking. This scenario is extremely important for the decision maker because it shows him the consequences which may arise if things do not change and slowly worsen.</td>
</tr>
<tr>
<td>Utopian scenario: describes the best of possible worlds, what would be the ideal situation. Although usually unachievable, the Utopian is the most desirable scenario, and has a highly didactic purpose as it shows what is NOT achievable</td>
</tr>
<tr>
<td>Catastrophic scenario: describes the worst of possible worlds, what is distopical. It worsens the trend scenario.</td>
</tr>
<tr>
<td>Normative scenario: describes a desirable and achievable situation that improves the trend scenario.</td>
</tr>
<tr>
<td>It structures the objectives for the future. It is useful to set certain achievable, reasonable goals, and to define certain stages which will enable that situation to be reached.</td>
</tr>
<tr>
<td>Contrasting scenarios: describe different situations starting off from the variations of certain of the key variables. Generally they are quite the opposite of the trend scenario, and present extreme situations. They are those that are built as if those surprises presumed to be totally improbable at the time of enunciating them were to happen. Nevertheless, they are not totally arbitrary, and focus on discovering by means of a rational analysis, relationships between facts that may not be sufficiently visible.</td>
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4. Continuous redesigning: of hypotheses and scenarios: or the possibility of exploring together with participants the different ideas as these arise, exploring freely and exhaustively until the group feels satisfied with its analysis.

5. Participation of the actors: in the working out of the scenarios, for the purpose of guaranteeing the pertinence of information. It is necessary for those intending to use the scenarios to take part.
6. **An ethical and critical attitudes** in handling the exercise and information, acting as careful “notaries”—reliable and credible on account of respect of participants and the results obtained, and attempting to stimulate an open and creative reflection, which does not merely reproduce the status quo [7].

These characteristics are interrelated to lend the method a distinctive touch. Yet, first and foremost, the main goal is flexibility. The scenarios are conceived as a process that does not close down at a certain point, so that it is possible to revisit the scenarios whenever an actor or a situation changes. Second, the participation of the actors, once the data have been collected, is fundamental. It is also important to be pedagogical, to describe reality and make it better known so that the experts and actors can explore and improve the future possibilities. In addition, it is necessary to work very hard on the qualitative and quantitative data. First of all, the data base should be structured, after which comes all the rest. Without a good point of departure, there can be no good point of arrival. Likewise it is advisable to distinguish the futurist’s role and to respect the decision maker. In this sense, the futurist should prepare the scenarios, because his undertaking is to guarantee the effective application of the methods and develop processes and exercises seriously and in depth. But he/she should not attempt to take decisions. The decision maker may think in quite a different way and act according to his/her criterion. The futurist should not so much directly influence decisions, playing a “Machiavellian” role, as concentrate on the clarity of decisions. The scenarist’s function is to serve as moderator and guide, one who does not impose or subtly influence conclusions. He/she should try to stay outside of the content, which should flow from the working group. Accordingly it is vital to be humble, to realize that the scenarios are not panaceas, but rather instruments for acting with fewer errors; they are tools capable of saying a lot but not everything.

**Influences**

The various types of scenarios have undergone the powerful influence of the tradition embodied by Herman Kahn, however, with important modifications. Stress is laid on the need to structure the trend scenario very carefully, as an element for getting a good knowledge of the present and its possible consequences, if no action or decision is taken today. Usually the deciders have considerable difficulties with this scenario, become frightened, and reject it. It seems that they find it hard to imagine the future as a mere extrapolation. But this is the basis, the referent, to consider seriously possible modifications of the structures and the strategies of the actors. Variations in the trend scenario serve as contingent possibilities (which could happen if certain circumstances arise), and are useful to identify the points of transformation, those facts that are liable to lead to crossroads. The utopian scenario serves to illustrate its own possibilities. As such, it is a pedagogical instrument that stimulates efforts to go beyond one’s limits, although that may not always be feasible. The normative scenario is the one indicated for action, because it is formulated on the basis of the objectives emerging from the group working on the scenarios. Finally, the intermediate scenarios serve to understand the influence of critical factors (surprises, etc.).

Apart from this, the influence that Michel Godet has had on the importance ascribed to the actors’ analysis and the transforming role of reality may be considered fundamental. The utmost attention is paid to identifying both their actions and the feeling that impels them to act, their motivations, desires, and fears. At this point, special note should be taken of the fact that scenarios cannot be drawn up “from behind a desk” by pen-pushing specialists isolated from their surroundings. They must come
TABLE 4

Basic Definitions: Scenarios as Techniques in Humility

**Future-oriented process**
A civilized conversation between genuine and humble people, capable of listening and controlling themselves, of systematically diminishing themselves to hear the whole, capable of questioning and answering, of accepting modifications to their thought and to the theories in which they believe, of suspending personal judgements and of playing collectively with hypotheses to create a holography or collective thought.

**Expert**
Person with the capacity to doubt. If he/she does not possess this capacity, they should change. Every attempt must be made to avoid sacred cows and anointed calves, self-proclaimed divinities who consider themselves living myths to whom people should grovel and bow down.

**Preparation**
A future-oriented process implies structuring, transparency, management, and prior grounding. We must not believe in credibility by tradition (the council of the elders or of the sages), nor it is a question of “converting anybody.” Rather, every effort should be made to experience, and not disqualify; there are not unchangeable theories, but rather the option is to seek out renewal of knowledge.

from people who have had to act on problems, who know from the inside what is being discussed. They must be effective actors, they must be public deciders, corporative, entrepreneurial, or trade union leaders, consultants, academics, and community leaders or leaders of public opinion having some recognized authority. Insofar as it is possible, the actors should be those who are influential at the present or who take decisions today involving the future, not merely actors who may have enjoyed a certain historic importance but have already lost their influence (Table 4).

**Illustrative Cases**
Although Human and Social Futures Studies counts on a well-defined method, the latter is applied according to the time, resources, and data base available, as well as the specific needs of the organization concerned. As pointed out heretofore, this method is considered appropriate mainly for pedagogical purposes and for applications related to international organizations and entities connected with the management of development. In the environment of development, building scenarios very often also implies building a culture of long-term planning, and all of this means that each process will be unique and specific.

This is the case, for example, of the exercises in training carried out in the field of education. In this first application, seminars have been held lasting 10 working days for the purpose of preparing persons in charge and public officials from Venezuela and Colombia. In Venezuela, work took place directly with the Ministry of Education, UNESCO-Venezuela and professionals from various Latin American countries, to visualize contextual elements liable to influence the 10-Year Plan of Primary Education 1993–2003 [8]. For its part, the Colombian Institute for the Fostering of Higher Education (ICFES) funded a training course for representatives of universities and technological institutes in the Gregorian University, Rome, for the purpose of drawing up tentative scenarios on the future of higher education, against the horizon 1996–2006.

A second recent application (1996–1998) has been territorial development, and concretely to work out the Strategy for Development of the Colombian West up to the year 2015. This is the second region in the country, covering 18% of total surface area, with eight departments, one-third of all municipalities, three of the key metropolitan areas in the country, and 38% of the Colombian population. It is similar in size to that
of countries like Chile or Ecuador—with close on 14 million inhabitants. The region represents almost half of the added value of the whole of industry and about 45% of industrial employment. As such, it is the most urbanized, the most industrialized, yet also the most varied in terms of social development. Historically, the western region has been very important for Colombia, and it is the physical and social space offering the best conditions for linking up with the world in the context of globalization, with a future that is strategic for the whole country [9, 10].

Here, the objective was to set up a frame of reference for drafting Departmental Development Plans. These were to serve as guides and not substitutes for the planning organizations. The entity in charge, the Regional Council of Economic and Social Planning for the West (Corpes de Occidente), was concerned with the short term and had an exceedingly local, sectorial emphasis on the basis of which decisions were being taken. For this reason the exercise was focused on identifying the main structuring features as a whole, and preparing a set of actors responsible for creating a collective regional project, thus fortifying bargaining power with the nation. To this end, for a full 18 months sectorial and intersectorial scenarios were prepared, finally arriving at a global vision of the region on the basis of six scenarios and an Agenda for Change containing strategic features, corresponding to the normative scenario (cf. Medina, 1999 [11]).

It is considered that this methodology was appropriate for a reality marked by a high level of conflict, because it fostered the search for alternatives and led to a different attitude toward development. Accordingly, a framework of human and sustainable development was proposed as an axis that would include economic growth and competitiveness as a vital but not all-important factor, at the same level as regional internationalization, equity, governability, and social integration. In the same way, the national reality was considered from the point of view of the regions, concentrating attention on endogenous development. Given this analysis, it was essential to start with the theory of the regional management of development that Sergio Boisier worked out according to the specific needs of the Colombian West (Table 5).

The third application of which we will make mention consists of the scenarios for a religious organization operating in five continents. The religious organization in question consists of women, and was created in the XIX century with a missionary intent for a

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**TABLE 5**

<table>
<thead>
<tr>
<th>Level of work</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
<th>Phase 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Analysis</td>
<td>Integration</td>
<td>Synthesis</td>
<td>Action</td>
</tr>
<tr>
<td>Themes</td>
<td>Sectorial scenarios</td>
<td>Intersectorial scenarios</td>
<td>Global scenarios</td>
<td>Action</td>
</tr>
<tr>
<td>-Infrastructure</td>
<td>-Institutional development</td>
<td>-General Environment</td>
<td>-30 main trends</td>
<td>-Strategic setting</td>
</tr>
<tr>
<td>-Energy</td>
<td>-Development -Territorial</td>
<td>Environment (world and national)</td>
<td>-6 alternative scenarios</td>
<td>(guiding aim, objectives, and general strategies, proposal for regional policies)</td>
</tr>
<tr>
<td>-Environment</td>
<td>-Development -Internationalization</td>
<td>-30 main trends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Economic development</td>
<td>of the regional economy</td>
<td>-6 alternative scenarios</td>
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<tr>
<td>-Education</td>
<td>-Conflict, equity, and culture</td>
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<td>-Health</td>
<td>-Infrastructure</td>
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<td>-Water, housing, and basic sanitation</td>
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small number of sisters, who initially traveled to Australia and the Pacific region to work essentially with women in the areas of health, education, care of the aged, etc. As time went on, the group extended its activities first to New Zealand, and thereafter assuming a more global orientation to the United States, Latin America and, more recently some African and Asian countries.

The organization decided to look at the future for two main reasons: changes in the environment in which the group was working, demographic changes, and their consequences in the membership of the organization itself. This late change reflects the ongoing demographic change occurring at a global level, namely the aging of the organization’s members in the North and the influence of many young members from the countries of the South. These two changes, plus a variety of other factors of social, economic, technological, and political nature, made it necessary to reconsider the aims of the organization, its methods, and approaches to society, as was explicitly recognized by the coordinating group, which called, first of all, for a long period of analysis of the situation at global, regional, and local levels. The initial decision to use scenarios to understand the future of the organization had been taken in 1990.

The organization’s future was observed in relation to the next occasion for the taking of decisions in the Order—1994, one horizon with a broad view of the forthcoming stages in 2001 and 2015. The basic questions were: what did the organization want to be in the year 2001 and in 2015, if certain decisions were taken in 1994? This was the immediate event for making decisions in which the persons in charge of the organization in the different regions had to be present. As a result, the whole exercise would last about 4 years.

The role of the Coordinator was precisely to raise questions and moderate the discussion: the exercise was to be carried out by the people engaged in the undertaking. The process began with a preliminary stage, lasting approximately 1 week, with the participation of those in positions of responsibility at central and regional levels. A preliminary analysis was made of the issues relating to the organization in a direct and indirect way, the various stages in the building of scenarios were described, with simple methodological instructions and examples in relation to each one of the regions in which the organization is active, for example, demographic changes, changes in family structure and development, changes in the educational systems, economic problems in the different countries, political changes in Latin America, Africa, and Asia, etc. Preliminary scenarios of utopian, trend, and normative type were worked out. The trend scenario of the various parts of the organization, and of the organization was a whole, consisted of a description of the situation that could be expected for the year 2001 and the year 2015, once more at global and at local levels, if decisions were not taken in 1994. The answer of the community was forthcoming in terms of the need to change its leadership model. As a consequence, the objectives on the basis of which the scenarios were drawn up were:

1. identify priorities in terms of problems and opportunities for the community;
2. determine the main actors in relation to the various keys and their strategies; and
3. prepare the groundwork for strategies decisions.

To this end, agreement was forthcoming on an approach whose two main purposes were:

1. **Educational**: Inform all members of the organization of the internal and external issues at stake for the organization as a whole and for the groups operating in
### TABLE 6
Process for Drawing up Scenarios

**A. Construct the data base (based on reports from the Provinces)**
- Identify the community system.
- Identify its environment.
- Identify issues emerging from the community in all those places where it is located, dividing them as far as possible into problems and opportunities.
- Identify the key variables of issues.
- Identify the actors and their strategies in retrospective terms according to each key variable.

**B. Build scenarios**
- Create sets of questions and hypotheses for each scenario.
- Develop the scenarios around the key variables and the actors.
- Indicate strategies for action and their possible consequences.

The process followed certain precise stages, in accordance with the procedure for the drawing up of scenarios described in the following outline (Table 6).

In each stage, the same activities were carried out:

1. Collect and circulate as many data and as much information as possible in relation to the composition of each region, its activities and internal and external problems.
2. Decide what emphasis to lay in relation to the future: emphasis on a better future for each member (identified as emphasis on the person), for each local group (identified as emphasis on the community) or at one and the same time for member and group (identified as emphasis on person-community). This was just as necessary as the information and data, and revealed the profound uneasiness of members at individual level, but at the same time a powerful motivation at the level of the organization.
3. Draw up a list of indicators to describe each region internally in terms of members, ages, places of origin, activities, and culture (with cultural differences constituting a serious issue), as well as externally regarding changes in the local population in terms of demographic structures, economic and professional status, political situation of the country, etc. Various meetings were held to evaluate and analyze the data from the different parts of the world, at the level of the central coordinating group. The analysis and evaluation were carried out internally, with the contribution of the General Coordinator of the project and

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the outside futures studies expert. This stage lasted more than 1 year. Note that each region identified variables, defined as those describing the region and without which the area of regional system could not survive. This stage likewise took round about 1 year, which brings us to 1993.

4. Identify the key variables (defined as those identifying the region or the whole organization), the variables common to the whole organization and the variables that differ according to regional differences. The identification of the key variables implied a difficult task: to decide what was the “mission” of the organization, processed by all—although in different versions—which consisted of “spreading the Christian message in different contexts and among different peoples.” Other variables describing the system as an “organization” were likewise identified by means of this process (mainly by fax and e-mail). At this point, it proved possible to build scenarios, with the key variable “mission” and the other variables, in terms of the three emphases simultaneously (person, community, and person-community).

5. Provide more reactions and indicators in the different groups on the sets of scenarios and at the same time making virtually a final preparation for the key meeting when decisions were due to be taken for implementation at the end of 1994. This was done by means of a major central Coordination Meeting held at the beginning of 1994 with the participation of all the members responsible for the organization in the different regions and the coordinating group. All the regions opted for person-community emphasis, because they noted through the scenarios the disastrous results of the other two options, namely emphasis focused on the individual person, or focused on the community, in such a way as to destroy the mission and finally the members.

6. Draw up the scenarios (trend, utopian, and normative) for each region and starting from this basis, develop a sum-total of scenarios (trend, utopian, and normative) for the whole organization. Accordingly, there was a meeting that lasted about 1 month in which decisions were taken on this basis for each region and, what is even more important, for the whole organization.

All the scenarios looked to the year 2001 and to 2015. They were worked out in answer to the same question: What could the organization and each region aim at and desire for the year 2001 and for 2015 if certain decisions were taken in 1994?

The variables mentioned in the framework of the following page were all used in the scenarios. The trend scenario was the departure point, followed by the development of the utopian scenario, and then by the normative scenario. Plans for action were drawn up on the basis of the normative scenarios at the regional level (during 1994) and in the form of a draft at the level of the whole organization in the course of the Final Meeting at the end of 1994. The utopian scenario focused on the great hopes of the members of the organization, and the normative scenarios were those alternative scenarios that proposed the possible goals of the whole organization and at regional levels.

In view of the fact that the organization itself was highly normative (in sociological terms), a strictly scientific evaluation of each scenario was not considered acceptable. In actual fact, the trend scenario on the bases of the different regional scenarios produced an awareness that, if no action was decided on, then the organization might become totally transformed or absorbed by other similar organizations. The utopian scenario was important because it illuminated and illustrated to all members the most intimate
TABLE 7
Key Variables

1. "Mission" was identified as the key variable, and was described as the expansion of the Christian world, mainly by means of support to women with problems (women living alone, women as heads of monoparental families with young children, women in need of education and medical back-up etc.). This took for granted variations between one region and the next, but which emerge particularly and, in fact, as a new aspect compared with the last 200 years, marked by an awareness of the different cultures and the need to respect differences.

2. Quality of life, a variable that includes many indicators, meant individually, the possibility of each member to develop her capacities and collectively, the possibility for the community to live all together in a spirit of understanding and solidarity.

3. Government, later changed in the last phase to governance, indicates a complex set of issues relative to agents of government at the local and central levels. The change in the concept of governance was an interesting indication of the educational process developed throughout the exercise and related to the knowledge generated in this period regarding the complex mechanisms involved in the operation of the organization, in contrast to the old idea of centralized power.

4. "Internationalization" indicated the great and growing importance of members from different countries. In this variable also, there was a change in concept so that from "internationalization" the title became interculture, in which the idea of the members belonging to a certain nation was partially replaced by that of belonging to different cultures.

5. "Size and dispersion" meant the organization becoming smaller in terms of size and the dispersion in small groups within the different regions. This was what had given rise to the whole process. The underlying issue in this case was what types of limits could there be on the size of each group, and what was the extent of the dispersion of its members that the organization could tolerate, given the aging of a large proportion of its members and the impulsion of the young but less educated members from the developing countries. This variable implies extremely important decisions and accordingly different scenarios.

6. Collaboration indicates the degree of collaboration between the groups in the organization and with other groups, religious and other, outside of the organization, for example, ecological groups, women's groups, etc.

7. Training was understood in the widest possible sense. The education of its members for their different tasks and life-long education were especially necessary for a highly normative organization.

8. Promotion of women

Source: Adapted by Eleonora Masini (1995) from "Two Scenarios Implemented in the Social Area."

thoughts and the most ambitious desires of the different regions and members, leading to the realization that this scenario was impossible. The utopian scenario led members to opt for the normative scenario, which might lead towards the best possible decisions and accordingly towards the organization's future in terms of possibility and feasibility of the various normative scenarios.

The development of the trend scenario implied a long process that required an exhaustive analysis of the data (rigorously collected by each region and by the whole organization). The utopian scenario took very little time, because all groups were very much aware of what they considered the best or the most desirable solution. At the same time, it was precisely in the course of this phase of development, i.e., the utopian scenarios of each region, that members gradually realized that the scenarios were unachievable, due to the lack of the necessary human and financial resources under the existing circumstances. This realization was in itself useful in terms of decision making (Table 7).

The most difficult obstacles were coordinating people and overcoming the intrinsic lack of confidence in the method. It was no easy task to coordinate groups and people and to win the confidence of those in charge of the organization. These difficulties were
gradually overcome, because the taking of decisions was at stake. Such obstacles were overcome by means of a complete knowledge of the situation and a joint evaluation of all its activities. One problem that caused tremendous difficulty was the tendency—still present in many members precisely in the final stage—to attempt to make recommendations on every possible occasion rather than drawing up an action plan deriving from the normative scenario. This major difficulty, which became apparent in certain variables more than others, derives from the religious-normative nature of the organization and the consequent tendency to make theoretical declarations. Coordination was very emphatic about avoiding this point and in fact successfully did so.

The advanced state of implementation stemmed from the development of a deep understanding shared by the members of the organization and its officials of the various issues in the different parts of the world, as well as the mechanisms by means of which each issue had been developed and the perception that members had of these issues. In many cases, the idea of a clear vision of the future was attained, so that the educational objective was achieved.

Considerable and often unexpected difficulties emerged in the last phase during the in-depth meeting of participants from the different regions. Power struggles, which had not emerged in either the collection of data and information or in the construction of scenarios, became apparent when it came to the conclusions in the final action plan. At this point, strong leadership was required, either by the coordinator (whose role was at all times of guidance and support) or by the main group. In any case, the action plan followed the normative scenario and was capable of avoiding the trend scenario (scenario without action) and the utopian scenario, in both of which the future of the organization could have been disastrous after the year 2001.

**Final Conclusions**

As an outcome of our experience, certain fundamental issues should be taken into account when building scenarios. They are as follows:

1. No single way of working out scenarios exists nor can the same method be used in exactly the same way in all cases.
2. The structure for creating scenarios should be flexible to be able to make variations in the process. If we realize that the variables proposed are not adequate, we can go back on them. However, this does not mean that everything can change. Certain time limits have to be respected without wearing a strait-jacket in the process!
3. Reflection should identify above all: What is changing? What can change (variables)? Who can bring about the changes, for example, actors? What needs to change?
4. Scenarios require a large amount of time. This is necessary to collect as many quantitative and qualitative data as possible. Such data should be as reliable as possible, be continuously adapted to the present and to the complex needs of the organization, without sacrificing the necessary level of methodological consistency.
5. The actors are those having an influence over a given field of action. They are not leaders. The optimum is to count on the participation of all those who are representatives of spokespeople of a community connected with the problem in the course of study, and which may be found at the center of such problems.
6. Participation should not be manipulated or betrayed. The Coordinator must be ethical and intellectually honest because otherwise the experts will not communicate and participate. Creativity and dynamic strength should flow from the group. Similarly, steps should be taken to avoid “the person underneath being crushed by the person on top,” eliminating biases and mixing up topics and actors having different positions. It is the people who make the scenarios; it is no use imposing visions. Participation should be respected, otherwise, it becomes an inefficient and dangerous (aggressive) proceeding.

7. The scenarios stimulate the imagination within the rational process of analysis. Scenarios do not imply a merely speculative and imaginative type of thought. Despite an underlying intuition, controls and parameters exist to ensure a process of rigorous reasoning, while it is vital to arrive at collectively validated questions and interests.

8. It is not possible to draw up scenarios from behind a desk. This is an iterative process of reconsidering and pinpointing the connections between the forces of change. Of course, scenarios are not total solutions; nevertheless they do help us make as few mistakes as possible.

9. The diffusion of a future-oriented document has impacts, influences opinions, not necessarily the “real”/reality. What is important is that the document also implies a criticism of society and constructs a reflection on the choices made by society.

10. Always in the present, we look to the future to identify the germs of change. Studies on the future represent a window onto the world and an all-powerful political instrument, as has been demonstrated by experience, for example, in China, Poland, and Eastern Europe. Whenever scenarios are drawn up, however, we should ensure that they are used with care.

References

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Appendix: Methodological Guide for the Building of Scenarios

Identification of issues that are experienced and brought to the surface by means of reports on the questionnaires:
Problems | Opportunities
--- | ---
- Aging, fairly young sisters, small congregation | - Historic ties, preparation for aging
- Dispersion, isolation | - Communication, unity, work in network, quality of life
- Formation | - Specificity, multicultural experience

Identification of variables (those without which the system ceases to be what it is):

<table>
<thead>
<tr>
<th>Internal variables:</th>
<th>External variables</th>
</tr>
</thead>
</table>
- Aging, small number | - External resources |
- Dispersion | - Justice and peace |
- Formation | - Secularism |
- Balance between community and apostolate |

Key variables (this is essential in the process): (a) mission, (b) solidarity with the poor, (c) interculture, (d) dispersion, (e) small size, and (f) promotion of women.

Building of scenarios: Scenarios are not predictions regarding what the future may be, but representations of a series of possible developments in the future, based on past and present trends, and on present and future decisions. A description of the possible developments of future situations may help decision makers to make choices with a smaller margin of error and a better understanding of the consequences of their decisions.

The alternative scenarios are oriented to future developments and not to present analyses. They are:

1. **Trend or reference scenario**: which is fundamentally extrapolative—that is, prolonging the present;
2. **Contrasting scenarios**: castrophic or utopian. The utopian scenario is a reality that is possible, but which at the same time cannot actually come into being. A long-term vision is required. The decisions to be taken concern the creation of an absolutely new situation, absolutely outside of anything that may at the same time appear to be viable.
3. **Normative scenario**: It is not utopian but extrapolative-normative insofar as it links the present with the orientation towards objectives.

The process consists of formulating questions starting with “if” and thereafter using the variables that have already been identified. The relations between variables and consequences show where action could take place.

**Example of Trend Scenario**

Main question: If the mission could continue to be what it has been until now.

**Present moment, if:** (1) if the process of aging continues/if vocations continue at the same rate; (2) if dispersion continues or if it will increase; (3) if formation does not become a central element for change; (4) if women’s issues continue to be central for the Mission.

**2001, then:** (1) we will have a small and older community (practically of the same size); (2) there will be less sisters in each place (thereby increasing isolation and individualism) or vocations will no longer be forthcoming; (3) the prophetic objective in our time may be lost; or (4) demands for and needs of an answer may be more urgent.

**2015, then:** (1) we may be much smaller and less active; or (2) dispersion may lead to a life $1 \times 1$. 


For each key variable exhaustive efforts are made to identify the actors (who?) and their strategies (why?), to draw up a map of their possible alliances and conflicts.

<table>
<thead>
<tr>
<th>Key variable</th>
<th>Historic behavior</th>
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<tbody>
<tr>
<td></td>
<td>Past</td>
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<tr>
<td>Actor 1</td>
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<td>Actor 2</td>
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<tr>
<td>Actor 3</td>
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Examples of main questions:

1. Utopian scenario: (a) what kind of Community do we want to be? (b) What are the seeds of change?
2. Catastrophic scenario: If the pressure of demands is very high, how can dispersion destroy intimacy?
3. Desirable scenario: If the mission, with all its limitations, focuses on the quality of life of the individuals and on service, and is more adequate to its specific goals (solidarity with the poor, interculture, women, etc.).

For each scenario, the same procedure is carried out: (A) if; (B) then; (C) actors; and (D) plan of action.