

Eastern Visayas in the Philippines of the 21st Century

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Introduction

Futuristics is a difficult art. Futuristics, futures studies, or social forecasting is unfamiliar or unknown to many. I would not be surprised if many among us doubt the usefulness of this new branch of the social sciences. You will agree with me that the exact configuration of a society in some future time depends on human decisions still to be made between now and that future time. Since nobody can claim to be able to predict human decisions accurately, one may say that futuristics or social forecasting is a useless exercise.

This is not exactly the case.

We make numerous decisions every day. You decide to attend this conference. A housewife purchasing provisions in a market not far from here makes decisions. Some of you here may participate in formulating or implementing a development plan affecting the Eastern Visayas region. You are thereby making decisions. Now most if not all these decisions are made based on some assumptions about the future, although these assumptions may not be explicit. Often, the way by which we arrive at those assumptions is not even clear to ourselves. In an informal sense, therefore, we are futurists; we make our own forecasts about the very small to the wider social environment we move in. What futuristics gives are the tools and formal techniques which make the process of estimating the future explicit and systematic. Futuristics becomes a useful, if not necessary, step in any serious development planning exercise.

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Among large corporations with huge investments affected by management decisions, futuristics is necessary and it is employed in one form or another for strategic planning. In assisting the serious task of nation-building, futures studies is indeed imperative.

This paper is an attempt to explore future possibilities for the Eastern Visayas region, within the national and global environments, in a manner that could assist planners and decision makers with the responsibility of charting the development of the region towards the 21st century.

National and Global Environments

One approach to social forecasting that seems workable is to study physical and biological constraints and opportunities affecting a social system. These constraints and opportunities, which may be termed here as biophysical pressures, are often objective and measurable factors that set predictable limits or paths within which the future devolution of a social system can be expected to be confined. Biophysical parameters, since they are more amenable to quantitative projections and manipulations than social parameters, could give more convenient handles for the student of social forecasting.¹

Firstly, throughout the world, a number of long-term trends could be safely assumed to hold true well into the 21st century (Table 1). The biophysical parameters in the table roughly correspond to, or form the physical basis of, the factors of production, the necessary inputs to any economic activity or to any human activity for that matter. In summary, the double squeeze between global resource and space pressures, on the one hand, and global population and knowledge/communication explosion, on the other hand, is expected to result in the following:

(a) Economic activities and corresponding products in the world market that are energy- and/or materials-intensive would tend to become more and more expensive, while those that are labor- and/or technology-intensive would tend to become less and less expensive. Effects on consumer preferences and lifestyles will be numerous and widespread.

¹S.D. Talisayon, "New Development Goals and Values in Response to the Global Environmental Crisis," paper read at the XIth American Studies Seminar-Workshop on Human Responses to the Environment, October 27, 1977, Caliraya, Laguna, Philippines, sponsored by the Philippine-American Educational Foundation.

Table 1. Long-Term Trends Affecting Fundamental Biophysical Parameters

Biophysical Parameter	Long-term trend
1. Energy	Oil would be 90% depleted globally by 2025 A.D. ² Oil price would continue its long-term secular increase, with the price of coal and uranium following closely.
2. Nonrenewable raw materials	Copper, lead, tin, zinc, gold, silver, and platinum may be depleted at about the turn of this century. ^{3,4}
3. Space	About 35 years from now, increased food production is virtually impossible through expansion of agricultural hectareage. ³ The area of cultivated land in the world is now slightly over one-third of a hectare per capita.
4. Population	6.25 billion people by 2000 A. D. is the latest UN estimate of world population by the turn of the century. World population may have just passed the inflection point and it is expected to increase at lower rates after 2000 A. D. ⁵
5. Technology (information)	Human knowledge is exploding exponentially; its diversity seems to have no foreseeable limit. ⁶

²M. King. Hubbert, "Energy Resources," in *Resources and Man*, pp. 157-239. National Academy of Sciences-National Research Council, Freeman, 1969.

³Harrison Brown, "Human Materials Production as a Process in the Biosphere," *Sci. Amer.* 223: 195-208, 1970.

⁴Paul R. Ehrlich and Anne H. Ehrlich, *Population, Resources, Environment: Issues in Human Ecology* (San Francisco, Freeman, 1970).

⁵"World Population Growth Shows Clear Signs of Slowing Down," *Times Journal*, Manila, 22 June 1978, p. 5.

⁶John McHale, *The Future of the Future* (New York, Ballantine Books, 1969).

b) A gradual shift in factor mix, or the relative proportions of the various factors of production, will take place worldwide that could lead to the blossoming of human learning and art and the "knowledge industries." This is analogous to the "post-industrial" stage forecast by a number of Western futurists.⁷

c) A parallel shift, but not a complete shift, will take place in development goals because the double squeeze that will tighten in the 21st century would make human resource-centered development modes more viable than purely material output or GNP maximization types of development goals.

These trends are now visible, especially in the Philippines. In fact, socioeconomic conditions in the Philippines in this generation closely approximate, in a strange coincidental way, the global conditions we expect to obtain in the 21st century:

- a) high population density,
- b) mix of Eastern and Western cultures,
- c) ethnic diversity with English as lingua franca,
- d) terrestrial/marine territorial mix,
- e) simultaneous combination of peace, and wartime conditions (the Mindanao-Sulu conflict),
- f) high value placed on education and knowledge,
- g) growing scarcity of agricultural and forested land, scarcity of indigenous energy resources,
- h) strong government and mixed economy.

The Philippines is literally in a crisis situation. It is very possible that the institutions, practices, and viewpoints we are presently evolving and adapting or developing in the Philippines may anticipate the basic forms/outlines and substance of social life that would be viable under the pressures expected in the 21st century all over the world.

In fact we can observe clear indications of the expected factor shifted in our emphasis in service trade, like tourism and export of skilled manpower, in cottage and small-scale industries, in our experiments with social indicators and social technologies like bayanihan schools, in the popularity of the tricycle. Gradual shifts in development goals can be observed in our experiment with the barangay concept and the human settlement framework, land reform, cooperatives development, emphasis on employment generation, and functional education for out-of-school youths.

⁷Daniel Bell, *The Coming of Post-Industrial Society: A Venture in Social Forecasting* (New York, Basic Books, 1973).

Thus, many apparently unrelated developments could be viewed as a set of coherent developments along the expected pattern of adaptation to, or coping with the crisis situation.

Knowledge/communication industries, especially education and training, would become growth industries in the 21st century when manufacturing and power industries would find great supply-side difficulties. In this regard, it must be noted that the Philippines ranks very high, if not the highest, among southeast Asian countries in terms of such knowledge/communication industries indicators like literacy, university enrolment, professional/technical workers, radios and television sets, mail and telegram traffic, telephone sets, etc. The Philippines has well-known schools in management, economics, and agriculture and we export managerial manpower abroad. Management, development planning, and community development, like education, are among the applied behavioral sciences which would gradually eclipse the applied physical sciences in the 21st century. While the 19th century was a century that saw the flowering of physical inventions and gadgets, the 21st century would be a century that will see the flowering of social inventions and social technology.

An examination of the global distribution of resources helps in understanding one of the sources of political conflicts which would be the external environment of the Philippines in the 21st century. Annex A shows in outline form how maldistribution of resources contribute to global political developments. Short of a resource war or a collapse of the international economic system, the environment within which the Eastern Visayas would find itself can be characterized as crowded, resource-scare, "tight" capital and technological resources, and more formalized and regulated organizational/social environments.

Future Possibilities for the Eastern Visayas Region

Region VIII, particularly Samar, is one of the so-called depressed areas or low-income areas in the country. It lies in the typhoon belt; abundant water, brought by typhoons and tropical depressions, cause floods and waterborne diseases like schistosomiasis in poorly-drained areas. Local people felt that the region has been "forgotten" by past administrations since the American colonial regime. Many of its municipalities have suffered from large out-migration, mainly by its more promising and ambitious young people seeking better opportunities elsewhere.

With this history and in the context of the above global and national environments characterized by scarcity of resources whether physical, capital, or technological, it is too easy to picture bleak scenarios of the future of Eastern Visayas. An examination of resource constraints and opportunities within the region should be one of the bases for drawing more accurate scenarios of the future (Table 2).

Some scenarios, by and large nonexclusive, consistent with the unique resource endowments of the region are the following:

a) Multipurpose dams and associated waterworks extensively distributed over Samar Island moderate/check flooding at the same that they provide irrigation and/or water supply and generate hydroelectric power, thereby unleashing the productivity of wide areas of alluvial valleys in the island. As a result, economic and social feasibility of farm-to-market roads increase, more are constructed and/or improved, and household incomes rise.

b) A cattle program is launched in Samar, including as its components a breeding and research station, extension of technical know-how to backyard raisers and small ranch owners, credit packages, leasing of government land to rural cooperatives, and a buying/marketing network at Catbalogan. Western Samar becomes the center of the cattle industry supplying the needs of Central and Western Visayas and the Bicol Region.

c) Tongonan-1 and Tongonan-2 are completed by 1990 bringing power throughout the island of Leyte and portions of Western Samar. Cheap power attracts industries to Ormoc. Population growth in Ormoc becomes very rapid and it becomes the capital of the new province of Western Leyte. Elsewhere in the region, cheap power accelerates the growth of small- and medium-scale industries. Sales of consumer durables increase and Tacloban becomes the prime commercial and financial center of the region. Cheap power also affects the agricultural sector. Food processing and other agro-based industries produce more competitive products than those from neighboring islands. The Pan-Philippine Highway becomes the corridor to Mindanao and Luzon for distribution of these products.

d) The government sets up and operates an aquaculture complex in Northern Samar through a World Bank or ADB loan. Various marine products are exported to Japan. Employment is generated. A joint program of instruction and research greatly aids the Samar Regional School of Fisheries/Fishermen Training Center, and benefits redound to small-scale municipal fishermen throughout the coastal areas of Samar and neighboring islands.

e) Experiments by Banfarms at Sab-a Basin successfully develop rice varieties and techniques that could convert the region's extensive swamplands into rice producing areas. The technology is duplicated in Samar, as well as in Bicol and Central Luzon swamplands, further contributing to the acceleration of rural incomes in these regions.

Table 2. Unique Resource Endowments of Eastern Visayas (Region VIII)

Resource	Comments
1. largest potential pasture-land of 880,000 hectares in Samar	This is due to the large rainfall and the abundance of low and intermediate slope upland grazing areas in Samar Island.
2. largest available swamp-land of 120,521 hectares mostly in Northern Samar	Not all areas may be converted to brackishwater fishponds because mangrove swamps provide shelter and spawning grounds for marine fauna.
3. considerable geothermal potential at Tongonan Springs near Ormoc City	Leyte Island lies along the major Philippine fault, giving rise to hot springs and to a mountain backbone along the west coast. An estimated 250 MW could be tapped from Tongonan Springs.
4. greatest diversity in rainfall pattern	Eastern Samar especially the Guiuan area is among the wettest parts of the Philippines, while north-western Leyte especially the Villaba area is among the drier parts.
5. considerable low- to medium-scale hydroelectric potential	There are numerous rivers in Samar Island.
6. presence of copper, iron, manganese, magnetite sand, rock asphalt, etc.	

f) The Pan-Philippine Highway is completed. The ferries at San Bernardino and Surigao Straits are efficient and reliable. Tacloban becomes the central place in Eastern Visayas, its economic and ekistic influence zone extending to Surigao, Surigao del Norte, particularly in the tertiary sector like higher education and advanced health care and medical services. Motorist-oriented establishments like restaurants, motels, repair shops and gasoline stations increase in number along the Highway.

The above scenarios can be assigned probabilities. Among the factors that tend to increase these probabilities are, first, the scenarios are rendered more feasible by the demand for food in markets internal and external to the region, and second, they are rendered desirable to decision makers by the employment opportunities generated by the corresponding projects. Among the factors that tend to decrease the scenarios' probabilities are availability of capital, entrepreneurial entry points, and managerial manpower. Political support from the national government as well as the eventual outcome of certain structural reforms in the government, particularly in the area of administrative decentralization, are important factors that may considerably increase or decrease the probabilities of certain scenarios.

A plus factor that would be felt worldwide with regard to accelerating demand for food is the shift, almost by force, of attention, R & D efforts, and investments to marine sources and to marginal upland sources. Thus the desirability of scenarios of the type of (b) and (d) would be felt worldwide and Eastern Visayas in one region that has resource potentials along this direction.

The negative factors enumerated above are omni-present wherever primary resource or frontier areas need to be developed. Almost always, development planners think of how to bring in capital, entrepreneurs, and managers from the outside. Extremely rarely do development planners formulate plans on the basis of assumptions that these factors would have to be found or cultivated from within. The Bayanihan School Program of the Palawan National Agricultural College is perhaps among the extremely rare cases of the latter.⁸ Innovative social inventions like this program,

⁸This program was conceived and has been implemented by President Miguel P. Palao of the Palawan National Agricultural College. For further details, contact President Palao or cf. "Social Benefit-Cost Analysis of the Bayanihan School Program of the Palawan National Agricultural College," S.D. Talisayon, Aborlan, Palawan, 1977.

adapted to development needs of resource-deficient frontier areas, would become more and more crucial as the world, particularly the Third World and "Fourth World," goes through the tightening population-resource double squeeze in the 21st century. For a country that does not suffer any lack in managerial manpower and management training programs and institutions, relative to many Asian countries, the Philippines could pioneer in innovative courses in areas like functional literacy, development management, short-term entrepreneurial courses, and the like. Such courses would be in demand in Tacloban the moment large amounts of cheap power are generated at Tongonan and stimulates small- to large-scale industrial ventures in the region.

STRUCTURAL REFORMS RELEVANT TO EASTERN VISAYAS' FUTURE

Organizational innovations and similar social inventions represent a possible modality of responding to resource pressures, as well as a necessary correction to structural flaws which are negligible in resource-rich environments.

An example of structural reform relevant to the experience of Eastern Visayas is the integrated area or river basin framework of development. Basically, this concept is an *area-oriented* approach to organizing a development effort, in contrast to a *sectoral* approach to development. Corollary to this concept and indispensable to it is that of a strong *area manager* or *area administrator* with sufficient political and administrative powers to integrate all sectoral inputs from the central government and bring them effectively to bear on the development of the area. The latter, corollary concept requires administrative decentralization of the national government and this is precisely the formula tentatively offered by the Presidential Commission on Reorganization to the Interim Batasang Pambansa.⁹ The Commission proposed to adopt the "river basin approach" and states that "there now appears to be a need for providing for a strong regional leadership." However, the Commission expected that decentralization would be met with resistance from the central offices.

The integrated area development or IAD framework has also been proposed for defining business lines and organizing

⁹"Organizing for Development: A Presentation Prepared for the Interim Batasang Pambansa" by the Presidential Commission for Reorganization, June 13, 1978, Metro-Manila.

development ventures by the private sector by Mr. Sixto K. Roxas of the Bancom Group of Companies,^{10, 11} Among the advantages of this framework for development are the following:

a) Political boundaries coincide, or are made to coincide as closely as possible, with natural boundaries. As a result, externalities whether positive or negative, that arise in a sectoral or in a product-oriented approach disappear because they are properly internalized or accounted for within the decision-making or accounting unit. Negative externalities like pollution are averted or minimized in the most effective fashion.

b) The framework leads to a *community needs-oriented* manner of organizing activities, rather than to one that is dictated by concern for one sector, or one product or service. The needs of the community determine the priorities among the sectors, products, or services.

Although administrative decentralization would apply to all regions in the country, Eastern Visayas is unique in that a unique model of integrated area development has been tested here in the last four years through the Leyte Sab-a Basin Development Authority and much later through the less administratively powerful Samar IAD Program Office. At the same time that it indicates the political commitment of the national leadership to the development of the Eastern Visayas, the Authority can be viewed as an experiment in structural reform which, if proven successful here, could be duplicated elsewhere in the development of frontier areas.

Concluding Statements

Ultimately, the future of the Eastern Visayas region depends on how well and how clearly goals and subgoals are defined for the region by decision makers in the region as well as national decision makers in Manila. Futuristics could be employed in augmenting the initial ideas in this paper to further clarify important elements in the external environment, and the crucial constraints and, opportunities in the internal environment bearing on the viability of the goals themselves and on the feasibility of implementing programs towards those goals.

¹⁰Sixto K. Roxas, "The Economic and Investment Future of the ASEAN Region," Pacific Forum Conference, Metro Manila, 1977.

¹¹Sixto K. Roxas, "The Foreign Investor in Asia-Pacific," Pacific Forum Conference, Singapore, 1976.

ANNEX A

I. OBJECTIVE ELEMENTS OF THE GLOBAL SITUATION.

In the "South" (Africa, South and Southeast Asia, South America, Oceania):

1. high population growth rates
2. low economic growth
3. low technological capital
4. some control over international political forums
5. moral superiority
6. direct supply control over oil prices
7. net raw material exporters (except food)
8. low mutual or intra-regional trade

In the "North" (Europe, Japan, North America, North Asia):

1. low population growth rates
2. high economic growth
3. high technological capital
4. full control of international financial institutions
5. military superiority
6. indirect demand control over oil prices
7. net raw material importers (except food)
8. high mutual or intra-regional trade

LEADS TO:

II. OBJECTIVE ELEMENTS OF THE INTERACTION:

1. widening disparity of population sizes
2. widening disparity of per capita income
3. widening disparity of per capita resource utilization
4. entrenchment of export specialization: resource flow from the South in exchange for technology counterflow from the North
5. extraction and depletion of raw materials tend to increase the relative price of raw materials, but
6. demand for technology to increase substitutability among raw materials and efficiency of raw material utilization tends to increase the relative price of technology.

LEADS TO:

III. SUBJECTIVE OR PERCEPTIVE ELEMENTS OF THE INTERACTION:

1. sharpening of a dualistic or contrasting perception of the problem situation, between "North" and "South" or between "developed"

and developing''; confrontation politics

2. increasing political exercise of one's advantage,

by the "South":

oil embargo
producer cartels
political "noise"
moral appeal

by the "North":

hints of military action
threat of "food weapon"
population control programs
indebtedness via world
financial institutions

BUT—

3. antithetical recognition of interconnectedness of global ecosystem and global economy, and interrelatedness of peace in every country to global stability
4. common recognition of the threat posed to everybody by possible explosive world future scenarios like

IV. ALTERNATIVE WORLD SCENARIOS

1. EXPLOSIVE SCENARIOS

- 1a. Arab-Israeli war, with or without superpower interventions, threatening oil supply to Europe and Japan, or
- 1b. Remilitarization of resource-poor Japan and destabilization of East Asia, or
- 1c. Superpower proxy war in Africa, or
- 1d. Sino-Soviet war, or
- 1e. Resource wars, e.g. over fishing grounds, oil-rich disputed territories, Antarctic claims, or
- 1f. Trade war, protectionism, global recession, loan defaults by poor countries, and collapse of Bretton-Woods system, OR—

2. EVOLUTIONARY ADAPTATION SCENARIOS

- 2a. Incremental and slow accomodation of Third World by First World in competition with socialist Second World enough to discharge tensions and avert conflicts;
- 2b. Massive starvation and hopelessness in "Fourth World" countries;
- 2c. Drastic self-reexamination and restructuring of development goals in many Third World countries;
- 2d. Ecological problems and anti-materialist counterculture moderate First World's voracious appetite for energy and raw materials;

- 2e. Global economy shifts away from materials/energy intensiveness and towards labor/information intensiveness; world development approaches a hard-earned "postindustrial" plateau stage of human resource centered development and neospiritual renaissance; OR

3. REAGGREGATION

- 3a. Reaggregation of the world into economic blocs for more manageable pursuit of common interests;
- 3b. Ethnic/ideological/religious commonalities provide the cohesive forces to resolve conflicts at the regional level;
- 3c. Status quo is maintained as far as interbloc or interregional conflicts are concerned;
- 3d. Self-sufficiency, complementation, internal trade, bloc intensification of cultural identities replacing some elements of nationalism and providing new mode of maintaining global stability
- 3e. Blocs would be:
 - European community
 - COMECON-USSR
 - North American bloc
 - ASEAN
 - Japan-PRC tandem(?)
 - West African bloc
 - Islamic bloc
 - Atlantic South America