



The Future of the Western Hemisphere

SUMMARY:

The Western Hemisphere, presently divided into 38 nations has an abundance of biological, mineral, and physical resources including extensive water spaces, fisheries and other oceanic and animal resources, as well as vibrant groups of peoples, and many individual cultures, speaking nearly 1000 languages.

The hemispheric resources have always been shared among many nations. An example: the large schools of migratory oceanic fish which proceed without boundaries between the nations. Other shared resources are flows of air, clouds with water, river water, ocean currents, and animals. No one nation can solve the future sustainability problem by itself; rather, all nations depend on cooperation with the others since so many resources are shared. *It is important to observe*, the indigenous trading nations shared resources throughout the hemisphere for millennia.

Most of the hemisphere's 38 nations are governed by constitutional democratic governments created from 235 to 150 years ago throughout the hemisphere. The intra-Hemispheric peace in the last 100 years (there have been no intra-hemispheric wars) has led to a stability which has enhanced hemispheric trade, increased sharing of resources, and strengthened relations between nations, while relieving the nations of the suffering and costs of war. Relative balances of human populations with food, water, and other natural materials including energy have been our good fortune to enjoy for centuries, indeed twenty or more millennia.

The critical question is: Will the western hemisphere's citizens modify their lives and governments to continue enjoyment of these resources or will an imbalance with the hemispheric resources continue over the next fifty years?

Clearly a roadmap to create such a sustainable future with continuing resources is necessary. For the first time, we are presenting a future analysis of the next 45-50 years of the Western Hemisphere and its nations. While the USA Club of Rome has had previous member authors present global or national future analyses, this one is hemispheric. It is our hope that this beginning will bear fruit to modify and examine many trends of individual, local, national, and private sector actions which are not sustainable and need modification. This study is thus a beginning, not the ultimate answer.

To quantify our analysis, we have used the International Future model (Hughes, 1995, 2005) for each nation, summed into four regions, then summed into the whole of the Western Hemisphere. The 50 year future of the Western Hemisphere (2005-2055), using the projections of Barry Hughes' International Futures Model information has been

perused, and we have found critical problems in each of the following domains of information addressed then by committees composed of wise, experienced field practitioners in the following fields: 1.)Population; 2.)Food and drinking water; 3.)Health; 4.)Environment; 5.) Energy; 6.)Legal issues; 7.)Economic issues; 8.) Poverty alleviation; 9.)Social issues; 10.) Language, culture and art issues; 11.)Education; 12.)Governance; 13.) Security issues; 14.) Technology issues; 15.) Religious issues. These committees have engaged in debate and research was undertaken to find wise solution sets to these critical problems. Solutions to the critical problems which this model illuminates have been examined by each committee of experts. The model clearly indicates two separate but interrelated, sets of forward moving processes: First, the highly industrialized existence and heavy production-oriented culture characterized by the large industrial urban centers scattered from Vancouver and Fairbanks to Santiago and Buenos Aires. In this portion of the Hemisphere, a fossil-fuel based economy powers hundreds of millions of urban inhabitants whose lives demand a great variety of material resources and demand infrastructure support systems including high-performing resource levels of medical, transport, energy, agriculture, water and services. Second, a rural existence, which frequently is composed of indigenous mountainous citizens (the original hemispheric inhabitants) in poverty (less than \$2/day/ person) with minimum demand on most resources (except forests, soil, and water) and very little demand for infrastructure services. This population in poverty will have extremely high population growth-- up to 131% in 50 years in Northern Central America and the Andes from Southern Ecuador south to Paraguay plus Haiti. This rural life is characterized by very little access to services and infrastructure resulting in very high infant mortality, low education levels, almost no access to capital, and poor infrastructure access (clean drinking water, sewerage facilities, etc). It is highly likely in this next 50 years that the two sets of life-styles will robustly conflict over resources and governance opportunities. We clearly see the beginnings of this conflicting interaction occurring in 2010 in several ongoing processes: 1.) migration from the poor nations into the richer; 2.) internal migration to the cities for employment; 3.) civil disobedience of the citizens living on less than \$2/day in specific nations; and 4.) civil demands in both a national and international setting developing from Chiapas, Mexico to Bolivia. We view this interaction between the two groups competing for resource usage as they change in their attitudes toward civil processes regardless of nation, as one of the large challenges of the hemisphere's next 50 years.

Other rapidly changing major processes occurring simultaneously and rapidly includes resource depletion chiefly by the industrialized citizens: problems from depleting fossil energy and its environmental by-products, fish, agricultural soil, forests, and CLEAN drinking water. The chopping of forests for cooking, heating, building and sales, and high population rates are the major simultaneous events in the rural poverty group. There are also critical and accelerating sets of non-sustainable problems unique to the highly industrialized groups which are likely to become problems of even greater urgency than at present. These include loss of capacity of governance, corruption, air and water pollution due to weak administrations, criminal groups operating outside government control and even internationally, etc. There are other problems in the poor rural (or

semi-urban) groups which include population growth up to 131% in the 50 years, child mortality rates up to 117 deaths/1000 births, high levels of maternal deaths, lack of education (especially for girls), cutting down the forests which provide important oxygen, sequestration of carbon, biodiversity, potential sustainable water resources, and other services.

The study has delineated sets of solutions for all these critical problems which if initiated now, rather than later when the crises appear, will lead to sustainable paths for the nations and peoples who choose to follow them.

AWARENESS of being a part of the hemisphere is lacking. Awareness of all citizens' actions reverberating to create the hemisphere's future is one of the primary prerequisites for the changes if we are all to come together to create a sustainable path for the mutual future of all. Many other recommendations have been made by the committees and listed in the RECOMMENDATIONS SECTION. The problems will for the first time be presented directly to stakeholders whose actions are having an effect on the hemisphere (such as woodchoppers and their resource managers in North Central American, Andean, and Amazonian forests; cement mining concerns; fishermen and their resource managers throughout the hemisphere, energy production units, etc.; local drinking administrators; coal mining companies), and of immense importance to national governments and their ministries, international government units, and local governments when relevant (as in the case of local drinking water managers).

It is our hope that these techniques can be used as a "hurricane monitoring system" is used: A predictive model, into which frequent input of data reveals patterns, trends, and directions of slightly future events. The ears of almost all citizens of the Greater Caribbean Basin and the Eastern US coast are glued to the information from this weather system during at least July to September each year. Not many could invent or run the system. All benefit from its information, saving lives, property and preventing suffering and loss. That is what this study aims to be for the Western Hemisphere seen as seen as one system of interlocking environmental and human forces.

Dr. Thorhaug and Andrew Oerke, the principal authors of the study are available with appropriate notice to give talks and seminars or workshops for public and private institutions.

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