

The primary goal of any healthy community is the continuous improvement of the quality of life for all of its members. Improvement implies movement in a favorable direction and, in order to assess such movement, communities must be able to measure and monitor changes over time. These measures, coupled with a vision of the future, can help regional planners chart a more favorable plan for the future.

SUSTAINABLE REGIONAL DEVELOPMENT

A Consensus Framework for Prosperity and Opportunity in the Next Century

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"Sustainability" is the term that is now being linked to this type of regional planning. For many communities and countries, the idea of "sustainability" is a key organizing principle, a foundation upon which planning is based. The concept of "sustainable development" is rooted in the idea that economic vitality, environmental quality, and social justice are interrelated and vital components of a healthy community. The one common thread that weaves its way through this concept is the shared need to enjoin economic, social, cultural, and environmental objectives. However, the difficulty lies in translating this mixture into a coherent and feasible plan. "Sustainability" simply focuses on this much needed translation through collaboration, proactive visioning and hard economics. In a nutshell, **sustainable development is all about the long-term health and vitality of a region, not during the next 10-15 years, but instead over the course of future generations.**

When we think about sustainable development, we think about all of the connections between elements of a healthy society in terms of generations. In looking at the Arizona-Sonora region, some of these elements include: natural resources (e.g., land, air, water, minerals); the cultural

resources; the people of the region and their very strong work ethic; employment opportunities and industrial development on both sides of the border; financial resources (e.g., banks, brokerage firms, entrepreneurs); all levels of educational institutions; cooperative agreements (e.g., NAFTA, Hands Across the Border, the Arizona Mexico Commission (AMC)); and technology. These are some of the interrelated economic, social, environmental, and cultural components that exist within this region. **In financial terms, these components can be thought of as the capital of the region or assets within its portfolio.**

With sustainability in mind, two choices are possible. We can live off the interest that this regional portfolio generates and leave the capital for future generations or we can use the capital now. Of course, using the capital now compromises the preservation of these resources for future generations.

In the past, visions of a more positive future often failed because policy makers did not address the underlying connections between economic change and the complex social, cultural, and environmental problems that we face. Today,

policy makers and scientists have begun to investigate these critically important connections within the context of sustainable development. In an effort to further define what sustainable development is, it may be helpful to outline what it is not, by describing two regional trends that at this time do not seem to be sustainable.

The state of Sonora has a large fisheries industry. However, primary productivity in the northern Sea of Cortez has dropped dramatically in the last 15 years. This situation has a significant impact on regional employment and the economy, as well as on the area's culture. This trend should be factored into the plan for the long-term management of this region. If more fish are caught than are produced each year or if we damage primary productivity in the Sea of Cortez, this, like overgrazing and deficit spending, is not sustainable, because *we cannot continue to do it forever.*

Agriculture in the state of Arizona uses 80% of the water consumed in the state but generates less than 3% of the gross state product (GSP). The cost of water for agricultural purposes does not reflect the true future cost of water nor the present and future cost of the externalities that come with high water consumption in a desert region, i.e.,

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the rise in salinity and sedimentation and the cost to clean and deliver water to this region 30 years from now. As the population continues to grow and the water table continues to drop, the aquifer and the Colorado River will become more and more saline, which will impact the remaining productive land and, ultimately, the population that depends upon agriculture for employment. We are already feeling the impact, for example, in the quality and high costs associated with CAP water. However, the real impact will be felt in the years to come, when the water we use today to support agriculture will be unavailable to support municipal and industrial growth in future years. *This is not sustainable thinking.*

We can see that these problems often are linked to one another and that the economic, social, and environmental decisions we make in different parts of our system have long-term effects on our region. For example, population growth and irrigation cause water consumption to rise. In response, we create more water by damming the rivers and drawing down the aquifer. This, in turn, causes a rise in salinity and sedimentation which ultimately impacts agricultural employment, the economy on both sides of the border, and fisheries in the Sea of Cortez. *This is not sustainable thinking.*

These are only two examples of trends that cannot possibly continue over the longer term. If they do, we will be leaving less capital in the Arizona-Sonora portfolio for future generations. My point is not to focus on decisions that have been made in the past, but instead to highlight how important yesterday's decisions are today and, in turn, how important today's decisions will be in tomorrow's decision-making arena.

When we look at this region there are numerous measures that can tell us which way our region is going, and if we are doing better or worse than previously. Some of these measures include: salinity, juvenile crime; unemployment; per capita income; wages; health care costs; educational access; adult literacy; per capita recycling; marine biodiversity; poverty rates; desertification; per capita water consumption; food costs; pollution; life expectancy; birth weight; family size; economic growth; exports; and imports.

All of these measures are indicators. They are small pictures of a much bigger mural. Over time they can tell us how our region is doing and, if some component of our region is in decline, these

indicators should trigger a regional response to initiate counter measures to halt or redirect the trend. These indicators, if properly identified, can help us understand more about the linkages between different parts of our system and our region and help explain how these different parts

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affect one another. These indicators will help economic decision-makers more systematically determine how their decisions affect a broader range of issues. This, in turn, will help regional planners develop more effective plans.

The Arizona International Campus (AIC) of the University of Arizona would like to help the AMC as it constructs a plan that includes all of these important interrelated economic, cultural, environmental, and social components. We would like to work with the AMC on a plan that leaves the capital in the region's account and provides a healthier system for both the present and the next generation. **This is what sustainable development is all about.**

AIC has entered into an agreement with the National Oceanic and Atmospheric Administration (NOAA) to undertake a project that: (1) will introduce the Arizona-Mexico Commission to the concept of sustainable development; and (2) will develop baseline data on the Commission members' knowledge of and attitudes toward sustainable development. In conjunction with the Commission's Quality of Life committee, AIC will initiate a longitudinal study on development and stewardship of the region in which we live. The ultimate goal will be to provide the Commission with indicators of sustainability and of community participation, thus contributing to the Commission's

long-term effectiveness.

In stage one, AIC and the Quality of Life committee will focus on enhancing the Commission's understanding of sustainable development and regional stewardship. In this stage, AIC will sponsor a Plenary Session speaker who will discuss sustainability in the context of the "Arizona-Sonora Vision" document. The speaker will emphasize definitions, community participation, and also talk about how issues of sustainable development are being dealt with in other parts of the country.

During stage two, in the spring of 1997, the AIC/Quality of Life team will provide facilitators for the interplenary committee meetings who will provide valuable information on definitions of sustainability and indicators. The facilitators will help the members initiate ideas on how indicators can be developed and help identify what some key indicators might be for each committee or cluster.

In the summer of 1997, one year from now, the AIC/Quality of Life team will submit a report to the Commission that will outline how sustainable development principles can be used to facilitate the economic development of the region and how indicators can be used to measure sustainability and trigger corrections and counter measures when unfavorable conditions are found. It is hoped that these activities will be the beginning of a long-term collaboration between the AMC and the Arizona International Campus.

Lucian Spataro, Jr., is the Associate to the Provost at Arizona International Campus. His academic background and professional career focuses on both environmental and economic issues. He has a B.S. from the University of Arizona and an M.S. (in environmental studies) and a P.h.D. (in an interdisciplinary program in environmental studies, communication, and higher education) from the Ohio University. Dr. Spataro was previously Director of Academic Affairs at the Universidad del Noroeste in Hermosillo, Sonora, and earlier served as Director of Economic Development for the State of Sonora PRISSA program. Dr. Spataro is both a certified Industrial Engineer and a certified Environmental Auditor.

Arizona International Campus of the University of Arizona is the State's newest four-year institution. AIC focuses on providing a high quality education to college students who are looking for a smaller, challenging, and more interactive learning environment.