Sustainability is a condition of existence which enables the present generation of humans and other species to enjoy social wellbeing, a vibrant economy, and a healthy environment, and to experience fulfillment, beauty, and joy, without compromising the ability of future generations of humans and other species to enjoy the same.

Guy Dauncey, President, British Columbia Sustainable Energy Association; Consultant to Civano Development, Tucson
The American West, for many, has been about becoming, not being; about betting on the future with little regard for constraints; about exploiting a place for short-term gains. Arizona, for its part, has traditionally embodied the type of place people move to for an opportunity, not necessarily to stay. That would make Arizona seem an unlikely state to be concerned about sustainability. Yet in discussions of almost every public policy issue, few other words are used as often, with as much fervor, or with as many meanings as sustainability.

Today, “Arizona” and “sustainability” represent a place and a concept poised together at the brink of humankind’s most urgent need. This shift marks a dramatic point in the state’s history. From the beginning of Euro-American settlement, Arizonans have focused their attention on state building in a forbidding place. Raising Arizona was the challenge of the 20th century. Sustaining Arizona is now the challenge of the 21st.

Turning sustainability’s broad tenets into workable policies is a multi-faceted puzzle. As internationally respected scientist Mostafa Tolba, chairman of the United Nations Commission on Sustainable Development, has written: “Achieving sustainable development is perhaps one of the most difficult and one of the most pressing goals we face. It requires on the part of all of us commitment, action, partnerships and, sometimes, sacrifices of our traditional life patterns and personal interests.”

Many of the challenges of sustainability are those that policymakers have struggled with for decades. Environmental quality, family well-being, economic development, and smart growth have been covered in countless publications, including prior editions of Arizona Policy Choices. Sustainability, however, approaches the issues from a different perspective. Better described as a journey than a destination, sustainability draws on knowledge from many disciplines and accepts people as part of — and decision makers in — the environment. It looks for integrated solutions that serve the economy, environment, and society simultaneously. It acknowledges the part that values play in choices and everyone’s responsibility for a quality future.

Sustainability reflects both a monumental concept of life on a global scale and a simple notion of balance applicable to
everyone. The most commonly used “official” definition comes from the 1987 United Nations’ landmark report Our Common Future, where it was defined as “meeting the needs of present generations, while not compromising the ability of future generations to meet their own needs.” Increasingly, governments, businesses, and organizations everywhere are putting sustainability into practice as:

• An overarching value that requires best practices at every level of organization
• A framework for evaluating policies that will advance strong economies, healthy environments, and equitable opportunities
• A fresh organizing principle for local, state, and national programs
• A mantra requiring everyone to take responsibility for a quality future

Sustainability, however, is not a new idea. Many American Indian tribes long considered decisions in light of their effects on the seventh generation. Gifford Pinchot, the first chief of the U.S. Forest Service, is well known for describing conservation as “the greatest good for the greatest number for the longest time.” In turn, many public policy analysts have called for systems thinking, integration, and holistic solutions to recognize complex connections among difficult issues.

The untoward effects of global development, dramatic population growth, climate change, and widening gaps between the “haves” and “have nots” have sounded sustainability alarms. Many public and private sector leaders have concluded that business as usual threatens not just quality of life, but life in total. At the same time, executives with a wide range of businesses and organizations are realizing that doing good and doing well can be mutually reinforcing over the long term, not mutually exclusive. Thus, while sustainability has developed in response to threats, it has also grown because of the desire to find new ways to solve old problems.

Today’s concern for sustainability has roots in many places. Publications such as The Club of Rome’s 1972 report, The Limits to Growth, and reports from international blue ribbon

Governments, businesses, organizations, and individuals everywhere are putting sustainability front and center as:

• An overarching value
• A policy framework
• A planning model
• A mantra

**DON’T EAT YOUR SEED CORN**

What is “sustainability?” It boils down to this: Don’t eat your seed corn. A time-tested concept, sustainability highlights the need to build replenishing systems that can supply the present without compromising the future. Sustainability is about people: How to foster a robust workforce and strong communities. Sustainability addresses innovation: How to spark it, nurture it, and protect it so the idea pipelines don’t run dry. Sustainability can be a lens to focus on values: Inspired by faith, family, personal commitment...on the built environment and on markets. And, of course, sustainability is also about natural resources: How to use, renew, and account for environmental capital.

Commissions have often linked the great issues of peace, freedom, development, and the environment. For example, *Environment* magazine summarized the United Nations report, *Our Common Future*, as follows:

- Human needs are basic and essential; economic growth – but also equity to share resources with the poor – is required to sustain them; and equity is encouraged by effective citizen participation.
- Environment is where we live; and development is what we all do in attempting to improve our lot within that abode. The two are inseparable.
- The concept of sustainable development does imply limits – not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities.

In 1999, the U.S. National Academy of Sciences published its report on the topic, *Our Common Journey: A Transition Toward Sustainability*. This report observed that sustainable development is “now central to the mission of countless international organizations, national institutions, corporate enterprises, ‘sustainable cities,’ and states.” It also focused on defining issues:

- What is to be sustained? The answer: Nature, Life Support, and Community.
- What is to be developed? The answer: People, Economy, and Society.

More recently, the Intergovernmental Panel on Climate Change (IPCC) – an eminent scientific group established by governments around the world to assess evidence on global warming – highlighted the urgency of instituting sustainable practices in a series of summary reports released in 2007. The IPCC reports concluded with high confidence that human-related activities, particularly burning of fossil fuels and agriculture, had precipitously increased the concentration of carbon dioxide and other greenhouse gases to unprecedented levels, leading to a rise in global temperatures. The probable result, according to IPCC scientists, will be widespread climate warming that will likely trigger extreme weather patterns, disastrous sea level rises, loss of arable land, increased fire risk, and other negative environmental, economic, and social effects that could persist for centuries. Current policies to address the issue, according to IPCC reports, are not sufficient to slow the trend. New policies and actions are needed.

While many nations and industries are not yet vigorously addressing sustainability issues, the goal has been embraced by some unexpected players. *Fortune* magazine noted that Wal-Mart, the world’s largest retailer, has decided to transition itself into the world’s largest sustainable company and, in so doing, anticipates cutting fossil fuel consumption and becoming the dominant marketer of organic milk and cotton. Wal-Mart also wants its suppliers to reduce packaging and energy use, which could magnify the effects of its sustainability mission enormously. At the same time, production home builders in the U.S. have brought “zero energy” subdivisions to the marketplace, particularly in California, and manufacturers of everything from old-line household products to cutting-edge technologies have taken up source reduction, recycling, and renewable materials.
Still, the journey toward sustainability is full of barriers. Interest groups each have their own jargon, stakeholders, and experts, and most sustainability enthusiasts start from a narrow discipline that shapes their outlooks on solutions. While everyone may want to sing the same song, it takes time to learn the music.

As a result, sustainability may best be addressed at the local and state levels. Michael Willis, 2006 president of International City/County Managers Association (ICMA), wrote in Public Management, “The answers to the issues of our age do not come solely from the global political arena but also from the very things we do at the local level. For nowhere is change more achievable than at the individual and local levels. In so many ways, it’s the things we do locally that really count.” True, states and metropolitan regions by themselves cannot easily measure their impacts on global conditions. What they can do, however, is monitor their progress toward balance as a proxy for contributions to world sustainability.

At the state and local levels, sustainability can be viewed simply as the “right” or “wrong” trajectory toward specific goals. Based on measurable indicators, states, counties, and cities must:

- Maintain policies and actions that take it in the right direction
- Change policies and actions that take it in the wrong direction

To make progress toward sustainability, communities need to agree on a set of goals and create a dynamic process for making decisions, tracking trajectories, and recognizing balance. They need to identify what is to be measured and monitored so their policies are meaningful for everyone. They need to make sustainability stand for positive actions and accomplishments. Because the stakes are high, the expectations are similarly high.

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**Governors Speak Out on Conservation, 1908**

We, the governors of the States and Territories of the United States of America in conference assembled, do hereby declare the conviction that the great prosperity of our country rests upon the abundant resources of the land chosen by our forefathers for their homes, and where they laid the foundation of this great nation.

We look upon these resources as a heritage to be made use of in establishing and promoting the comfort, prosperity, and happiness of the American people, but not to be wasted, deteriorated, or needlessly destroyed...

We agree, in the light of the facts brought to our knowledge and from information received from sources which we cannot doubt, that this material basis is threatened with exhaustion. Even as each succeeding generation from the birth of the nation has performed its part in promoting the progress and development of the Republic, so do we in this generation recognize it as a high duty to perform our part; and this duty in large degree lies in the adoption of measures for the conservation of the natural wealth of the country. [Applause]

We declare our firm conviction that this conservation of our natural resources is a subject of transcendent importance which should engage unremittingly the attention of the nation, the States, and the people in earnest cooperation...

Let us conserve the foundation of our prosperity. [Great applause]

Excerpt of a public declaration from state and territorial governors following the first conference of governors convened by President Theodore Roosevelt in 1908.
Lessons on Sustainability from Arizona’s Past

An ancient land of long habitation but a short modern history, Arizona has been described as part of the Old West, the New West, and the Next West. Now, the time has come for the Sustainable West. Societies have always interacted in complex ways with their economies and environments. No exception, Arizona’s history has been full of adaptations to an arid land. The state also has felt the impact of national trends as well as disgraces of its own making. From both the good and the bad experiences, five lessons stand out for sustainability.

Success can be short-lived, but places can be reborn. Think of Tombstone’s silver boom and bust, grasslands ravaged by overgrazing, and the reinvention of copper and railroad towns.

Boom and bust is a phrase inextricably tied to the West. Arizonans most often apply it to mining communities, with Tombstone being one of the best-known cases. Between about 1877 and 1886, Tombstone’s approximately 50 mines produced almost $30 million in silver, and to fuel those operations Tombstone used “enough wood, stacked four feet high in four-foot lengths, to stretch nearly 200 miles” according to anthropologist Thomas Sheridan. But the heyday ended when low silver prices and flooding in the underground mines made extracting the ore impractical. Tombstone’s woodcutting economy also died with the mines.

During nearly the same period, large-scale livestock grazing arrived in Arizona – by rail. Cattle growers shipped huge numbers of stock to what seemed like endless acres of grass, particularly in southeastern Arizona. Then drought struck, first in the mid-1880s, and again in the early 1890s. From mining, woodcutting, and grazing, huge swaths of land were left without trees and grass, creating a “ moonscape” that remains evident even now.

History also shows that the “busted” can be renewed. Wilderness designations and new grazing practices have helped some southeastern rangeland to heal. Old mining towns, notably Bisbee and Jerome, leveraged their colorful histories and historic buildings to retool as arts and tourism centers. More recently, the railroad and Route 66 town, Winslow, moved toward revitalization with renovation of its La Posada Hotel, the last great Fred Harvey railroad stopover designed by Mary Jane Colter. What is different today, though, is the accelerating pace and breadth of change. If we consume our last reservoirs of natural resources and historic landmarks, how will we renew places in the future?

The powerful and the weak can readily change places. Think of the legislative power shift from rural to urban, the economic impacts of Indian gaming, and the far-reaching effects of American Indian water settlements.

With a single stroke, a balance of power can shift. In 1960, Arizona’s population topped 1 million, due to urban growth, yet rural areas still held sway in the legislature. The reason was Arizona’s federal model for lawmaking: the House of Representatives was districted by population, but
the Senate was districted by county. Since most counties remained rural, they held disproportionate power. A U.S. Supreme Court decision in 1964, however, changed Arizona’s and other states’ legislatures forever by requiring “one man one vote.” The result was a shift of influence from the country to the cities. Today, more than 80% of Arizonans live in urban areas, a fact reflected in the membership of the modern legislature.

Another U.S. Supreme Court decision in 1993 changed tribal fortunes when it enabled Indian gaming. By 1994, 16 Arizona tribes had negotiated gaming agreements with the state, and 10 casinos were already in operation. Since then, casino dollars have ignited economic development on many reservations. The result is that once-ignored tribes have become prominent players in decisions about Arizona’s urban development, and indeed, its entire future.

A third stroke of change occurred with the federal Arizona Water Settlements Act of 2004. As told by George Webb in *A Pima Remembers*, the Pima Indians had farmed along the Gila River for centuries, but saw their way of life altered in the early 20th century when the Gila was dammed upstream. The 2004 settlement reinstated the Pima water rights, giving the Gila River Indian Community, Ak-Chin Indian Community, and Tohono O’odham Nation new resources and importance to municipalities and developers that are trying to assemble water portfolios to meet metropolitan demands.

**Benefits on one hand can mean hardships on the other.** Think of the unanticipated effects from water projects and the social costs of economic and population expansion.

Many of the West’s major reclamation projects were justified by benefits that seemed to outweigh any potential costs because the dams provided hydroelectric power, stable water supplies, flood control, and economic opportunities. Today, however, unintended consequences from these vast waterworks have become apparent. Damming of waterways, for example, has inadvertently destroyed riparian habitats across the state.

The demise of Phoenix’s Golden Gate barrio shows how progress can steamroll social and culturally viable communities. Comprised mostly of low-income Mexican Americans and immigrants, Golden Gate in the 1950s stood directly in the path of airport expansion. Ultimately, most Golden Gate families were relocated to the new area of Maryvale so the airport could grow, but the resettlement process sowed mistrust and tension among Latinos starting new lives as well as existing Maryvale residents. While Sky Harbor Airport has since become one of the busiest transportation hubs in the nation, its success was built in part on the involuntary sacrifices of earlier residents.

Arizona’s population growth over the past half century has been a blessing as well as a curse. It has brought jobs, economic growth, and expanded cultural opportunities, but also created...
strains between newcomers and long-term residents and raised concerns about how to create a sense of community in new places. Growth is also responsible for increasing anxiety about quality of life, water, and air quality.

**Staying power requires new thinking and adaptation, not just persistence.**

Think of reclamation, long-term goals, and evolving toward balance.

As indigenous farmers proved, water is the essential ingredient to make desert communities bloom. Yet rains and rivers in this harsh climate are fickle. Thus, a stable water supply for Arizona’s biggest cities depended on engineering genius, steady political backing, and deep pockets over long periods of time. Ironically, Arizona’s two best-known federal water projects – Roosevelt Dam and the Central Arizona Project – marked both the beginning and end of America’s federal commitment to huge investments in water storage and transfer.

Leadership had to adapt. The campaigns that won big federal water projects in the early and mid-20th century are now often characterized as boosterism – an outmoded type of promotion that tended to blindly deny all faults or problems. Today, leaders have taken up the mantra of sustainability as it has become clear that the traditional pattern of putting the economy first cannot continue without increasingly large negative effects. Jobs, housing, population growth, natural resources, transportation, family life, and all the rest must be balanced.

Misguided policies, wrong-headed practices, and clashes of values must be addressed sooner or later. Think of federal intervention, cures for the maladies of “King Real Estate” and car-dependent cities, and individualists versus collectivists.

When state leaders have not been willing to correct public policy mistakes and missteps, change has come anyway – by federal pressure, judicial decisions, and voters’ actions. In 1948, an Arizona Supreme Court decision confirmed the right of American Indians to vote in Arizona elections. In the late 1970s, the U.S. Secretary of the Interior forced Arizona to enact groundwater management laws by threatening to block the Central Arizona Project. Recent court cases ordered equitable K-12 funding and improved services for English language learners. Broad grassroots efforts helped win school integration in Arizona the year before the issue was decided nationally by the U.S. Supreme Court’s decision on *Brown vs. Board of Education*, and also brought Arizona a holiday honoring Martin Luther King, Jr. after boycotts cost the state the 1993 Super Bowl.

To address the downsides of economic dependence on population growth and the negative impacts of car-dependent cities, new policies – albeit first steps – are now being enacted. Some
examples: With support from policymakers, business leaders, and civic groups, voters approved light rail for metropolitan Phoenix, financial support for K-12 education, and more funding for science and technology research at the state’s public universities – all to improve the state’s economic position and quality of life.

At the same time, Arizona owes much to the collaborative efforts of community builders and massive investments from the federal government. While Arizonans are often portrayed as archetypal rugged individualists, historian Richard White notes that Arizona and other states “can more accurately be seen as the child of government and large corporations,” and anthropologist Thomas Sheridan adds: “Behind every rugged individual is a government agency.”

Innovations in public policy have often come when the values of individualism and collectivism had to be balanced. So, if issues must be addressed sooner or later, the question is why not sooner? Can we do a better job of educating our public leaders? These five lessons touch on a few highlights from Arizona’s past. They show the necessity of stewardship, the huge payoff of investments for the future, and the value of a long-term timeframe. Arizona’s past lessons suggest that, for sustainability to occur, the policy watchwords of the future should be resilience, equity, innovation, balance, and reconciliation.

**INTERPRETING LESSONS FROM ARIZONA’S PAST**

<table>
<thead>
<tr>
<th>LESSONS FROM THE PAST</th>
<th>POLICY PRINCIPLE FOR THE FUTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success can be short-lived, but places can be reborn.</td>
<td>Resilience</td>
</tr>
<tr>
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</tr>
<tr>
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</tr>
<tr>
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</tr>
<tr>
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<td>Reconciliation</td>
</tr>
</tbody>
</table>


**INNOVATIONS IN PUBLIC POLICY HAVE OFTEN COME WHEN THE VALUES OF INDIVIDUALISM AND COLLECTIVISM HAD TO BE BALANCED.**

**THE NEXT BUSINESS EVOLUTION**

Sustainability in business is the natural evolution of the Total Quality Management (TQM) movement. Two decades ago, everyone was talking about TQM – there were conferences, seminars, and awards. But few really knew what it meant. Today a company without a quality management process as part of its core business is not likely to be in operation. Looking at the current craze over sustainability, it feels like TQM all over again – lots of talk, with tremendous uncertainty about what it means and how to do it. But I expect that sustainability, with its longer term view on economics, society and the environment, will also become a norm in business within the next several years. And we will all be better off for the evolution.

Ed Fox, Vice President of Communications, Environment, and Safety for APS