

A MULTI-CAPITAL PERSPECTIVE

As mentioned earlier, every time a community imports a good or service that it could cost-effectively produce for itself, it “leaks” dollars and loses the critically important multipliers associated with them. Financial capital, however, is not the only form of “leakage” that can undermine the strength of a local economy. Natural, human, social, and built capital²³ are also all critical to sustainable development and, when sourced and grown locally, can strengthen the resiliency of the local economy.

From a natural capital perspective, one approach that Santa Fe might take to promote import replacement—an approach consistent with grounding economic development in place—is to nurture nascent local industries rooted in natural resources. These industries offer opportunities for greater self-reliance and for export earnings. Some examples are explored in the following two pages.

²³ From a multi-capitalism perspective, sustainable economic development is sourced from at least five forms of capital:

Natural capital is supplied by the interdependent web of natural living systems that generate, provide sustenance, and enable the evolution of life on the planet. Water, soil, energy, and raw materials are all examples of natural capital.

Human capital consists of peoples’ capacity (including their health, knowledge, skills, motivation, and competence) to engage in productive, value-adding work. This capital can be grown through healthcare, education, training, self-development and experience.

Social capital refers to the capacities of a community to foster cooperation and trust among people and groups. A community with high social capital tends to have strong working social networks and institutions (e.g. families, churches, cultural organizations, business networks, schools, civic groups, etc.) whose interdependent efforts support the achievement of collective goals.

Built capital consists of both “hard” assets (e.g. tools, machinery, produced goods, buildings, physical infrastructure - including transportation, water, telecommunication, waste disposal and energy, etc.) and “soft” assets (e.g. intellectual/cultural assets, databases, web platforms, copyrights, etc.) that are used to enable the generation and exchange of goods or services, and which can also be further developed to add greater value.

Financial capital facilitates economic production, though it is not itself productive. Money is capital if it is invested to provide valuable goods and services or to produce some other form(s) of capital returns. Financial capital contributes to increasing community wealth if it is invested to generate increased human, social, natural, or built capital, as well as financial returns, where applicable.

For more information, please see <http://www.eoearth.org/article/Capital>

SUN

As a place known for “dancing ground of the sun,” Santa Fe is a natural cradle for solar-energy technologies. Indeed, passive-solar building design is a contribution derived from ancient native technologies. Ed Mazeria, a Santa Fe architect, and others have successfully demonstrated how the sun and heat-absorbent materials can replace fossil fuels for heating or cooling buildings. This industry, especially in the construction materials arena, plus distributive solar electrical generation, are two business sectors here that offer potential for scaling-up.

There are already a few locally owned solar installation companies doing well in Santa Fe, and the potential for expanding market demand is great, especially if long-term financing were available (see Finance Opportunities section in this report for more details). While the cost of solar panels has dropped precipitously in recent years, the one-time, up front cost of installing a solar array is prohibitive for most people. With long-term financing, however, the actual cost is zero if the monthly finance payments are no more than the building’s existing monthly electrical costs. This applies to City, County, State and school buildings, as well as to commercial and residential buildings. With appropriate financing, everyone who pays an electrical bill can afford solar electrical generation. Homewise, an affordable housing builder in Santa Fe, has demonstrated this on a small scale by establishing a solar installation loan fund.

²⁴The Green Builder® Coalition, in cooperation with Build Green New Mexico (BGNM), Santa Fe Area Home

Builders Association (SFAHBA), and members of the City of Santa Fe Water Conservation Committee (SFWCC) have created water modeling software that generates a Water Efficiency Rating Score, or WERS®. The premise is that verified measurement and incentives will increase participation in conservation efforts.

The initial goal was to integrate the WERS® into the BGNM program and use it to document an empirical method of calculating eligibility for water use reduction tax credits. In February of 2014, goals were generated along with an initial action plan. In the following months, a formalized committee, consisting of representatives from BGNM, the SFWCC, the SFAHBA, The Coalition, and the Santa Fe Community College (SFCC), continued to refine the WERS® program.

Measurable parameters were established as the foundation of WERS®, along with a scoring scale of zero to 100 with zero being the most desirable. The decided focus was on water using elements that could be measured. Initially, indoor water use was considered that involved the main plumbing fixtures of toilets, showers, lavatories, kitchen sinks, clothes washers and structural waste. Structural waste is the amount of water that is typically wasted before usable hot water arrives at the furthest hot water using fixture. The calculation for structural waste is based on the water wasted for conventional water heating systems.

²⁵<http://www.wers.us/tag/green-chamber-of-commerce/>

WATER

From acequias, to water conservation and harvesting, to the introduction of WERS²⁴, to “constructed wetlands” (black water to potable water recycling), Santa Fe has been a leader in designing, implementing, and selling water management systems. There are currently a few small enterprises in this sector, but the potential for scaling up Santa Fe’s contribution to this industry is large. It should be noted that in the first week of June of this year, the Santa Fe Green Chamber of Commerce is co-sponsoring a three-day national water conference in Santa Fe.²⁵

SOIL REGENERATION

The soils in Santa Fe’s region range from decomposed granite to clay to volcanic to alluvia. But due to rapid runoff and flash floods that have eroded the good soils, plus overgrazing in the late 19th and early 20th centuries, Santa Fe has had to develop technologies for soil regeneration. This has led to a few local landscaping businesses (e.g. San Isidro Permaculture and Santa Fe Permaculture) in this market. As the region gets more serious about producing food locally, more businesses here will emerge. These technologies plus water management system designs provide permaculture entrepreneurs with an opportunity to grow consultant businesses that would assist farmers, ranchers, and others throughout New Mexico and the Southwest to grow healthier soil and produce greater yields.

HERITAGE FOODS

Seeds of Change was originally a Santa Fe based company, founded in 1989, with a mission of providing “organically grown seeds for farmers and gardeners, while preserving countless [native] heirloom varieties in danger of being lost to ‘advances’ of modern industrial agriculture.” Quite successful, it was acquired by Mars, Inc., and disappeared from New Mexico. It serves as an example, however, of future food-related opportunity for new local businesses.

Rick Schneider, a Santa Fe resident, is in the process of putting together a native seed/food production system based on Landrace corn. When complete, beyond broadening a special crop opportunity for local farmers, new jobs will open up for shuckers, millers, and marketers. The combination will not only be able to save a heritage seed but sell uniquely delicious corn meal to local tortilla markets and—because of its delicate flavor—to gourmet restaurants, locally as well as in New York, Los Angeles, San Francisco, and beyond. Because it is an indigenously generated seed suited to our climate and soil conditions, it takes less water to grow it and has other ecosystem advantages.

Native chili and other indigenous seeds also can provide significant value-adding business opportunities. The potential for discovery of other heritage foods leading to a greater, sustainable local economy is real.

LOCAL, SUSTAINABLE AGRICULTURE

Due to the seasonal nature of growing fresh produce in Northern New Mexico, local food is available for only a portion of the year. Santa Fe Community College (SFCC), however, sees this as an opportunity and is in the process of developing a pilot hydroponic farm to produce fresh produce and fish year around. If successful, this could lead the way for local farmers to provide in all four seasons sustainably fresh, food production throughout the Santa Fe region. This technology could in turn be sold to communities worldwide with scarce water resources.

RANCHING & GRAZING INNOVATIONS

Appropriate livestock and native grasses that consume less water and do not deplete the soil, provide great potential for generating a sustainable local food supply. As an example, Tall Foods, a new, locally owned company in Santa Fe, is raising ostriches as a healthier, equally flavorful, red meat alternative to beef. Ostriches consume far less water than cattle, do not compact the soil, offer a number of byproducts, and do not require the amount of forage. The Quivera Coalition and the South West Grassfed Livestock Alliance are two other local examples.

BIO-FUEL

SFCC is researching and developing bio-fuel production from algae for use as a backup energy source, complimentary to intermittent solar and wind electrical generation. Bio-fuel is also a good prospect for replacing gasoline and diesel. In addition to research and development, SFCC is training the workforce for these future businesses.

All of these natural resource industries demonstrate Jane Jacobs’s argument about the power of import replacement. Even though these industries start by meeting local demand, they gradually grow to meet regional, national, and global demands. But unlike business attraction strategies, these industries ensure that economic development is rooted in place.

HUMAN, SOCIAL & BUILT CAPITAL

Beyond financial and natural capital perspectives, local import replacement strategies for Santa Fe can also be bolstered through the lens of the other three capitals (human, social, and built). From a human and social capital perspective, one of the critical “leakages” that adversely affects economic development in the Santa Fe area is its professional talent pool. Numerous local business owners and business support professionals spoke about educational skill gaps in the local workforce. As businesses become more inclined to move to where a professional talent pool is readily available, local youth who pursue higher education and professional development degrees are inclined to follow. Likewise, new businesses might be discouraged from relocating to the Santa Fe area for similar reasons.

Successful import replacement requires growing and attracting a stronger professional talent pool that can meet the needs of existing and potential new local business development. The pending vacancy of the SFUAD campus offers Santa Fe an opportunity for addressing this need. The temptation to attract another outside education institution to fill the lease would miss the opportunity to leverage local talent and enjoy a greater “multiplier” effect.

A better idea might be to expand the adjacent “Higher Education Center” to the campus and develop it as a consortium hub for higher education and research institutions throughout New Mexico. Better still, focus the hub on sectors that strategically support the development of Santa Fe’s economic future. The Houston Advanced Research Center (HARC) is a successful example of this model. HARC is a not-for-profit university consortium that serves as a hub for sustainable technologies research and development in the Houston area. A similar consortium could be developed on the SFUAD campus as a higher education and research center for local sustainable development. The campus could be revamped with mixed-use development of buildings (combining retail, entertainment, educational, and city government functions) and with degree programs supporting sustainable design, engineering and architecture.

A second critical “leakage” (from a social and built capital perspective) that currently affects economic development in the Santa Fe area is the lack of affordable housing stock. Due to this current imbalance between supply and demand, Santa Fe is currently “importing” low-and-medium-income workers who live in neighboring regions such as Rio Rancho and Espanola. These families end up receiving income from Santa Fe and spending it elsewhere, thus reducing potential local multiplier effects through the recirculating of dollars. Compounding this leakage is the fact that the majority of local affordable housing projects (by volume) are currently being built by non-local construction companies. This “problem,” however, offers an opportunity for economic development. Local financing and policy strategies that can incentivize affordable housing development by local businesses could leverage this multiplier effect.