TRANS-DISCIPLINARY MANAGEMENT PARTNERSHIPS FOR SUSTAINABLE DEVELOPMENT IN THE MEDITERRANEAN

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Abstract

From the 1972 UN Stockholm meeting on environment, to the UNCED report Our Common Future (1986), which introduced Sustainable Development (SD), to the UN Earth Summit (Rio 1992), that set the global policy framework, to the 2012 Rio+20 Summit, Sustainable Development has been understood and misunderstood, used and misused across environmental and socio-economic spheres. But a consistent theoretical and paradigmatic SD discourse, policy and practice have evolved, irrespective of deviations from the core framework. This paper discusses the evolving SD paradigm, its protagonists and antagonists, successes and failures, local and regional applications, in relation to policies and practices of UN Organizations, the European Union and national governments, with an emphasis on the Northern Adriatic Hub (NAH) of the Mediterranean Sea.

Keywords: Sustainable Development Paradigm, Public-Private Partnerships, Policy and Planning

INTRODUCTION & BACKGROUND TO SUSTAINABLE DEVELOPMENT

“Think Globally, Act Locally” Our Common Future (UNCED, 1986)

This research explores the following propositions: 1) that successful management of sustainable development (SD) can only evolve from an emergent local leadership; 2) such leadership must be able to actively motivate and involve a significant public majority in understanding the underlying issues and necessity for participation; 3) such a model of SD management also involves limits of scale, size and diversity of territory and population; 4) other limiting factors being the complexities of natural and human resources, socio-economic,
political and cultural structures; and 5) factors of historical and geographical location in relation to transport, communications, and large centers of power.

The most important aspect of these propositions questions the scale at which adequate trust can motivate a significant proportion of any population to support their leadership in enacting difficult measures to sustain their quality of environment and a modestly balanced way of life. The operative assumption encompasses defining quality of socio-economic and natural environment, and motivation to do what would be necessary to sustain those qualities that constitute shared values. Implicit contradictions involve social structure and class, attitudes among differentiated social groups, and the amount of mobility. In a classic overview *Social Mobility in Industrial Society*, (Lipset and Bendix, 1991) the authors list key issues of mobility involving generational shifts in values, opportunities for individuals, families, and groups to enhance their social status without social conflict, and openness to migration affecting the rate and scale of demographic shifts.

In short, these propositions assume a near perfect community with great homogeneity in values and minimal social disparity. This raises a further question over what degree of conformity to the model, agreement on what constitutes a desirable social and natural environment, and what is required to manage a minimal amount of conflict over what is needed to sustain those environments. Here we also raise the troublesome question of family and community, as raised in UN research, as to what constitutes the norms for any specific territorially based human population, and how internal and external influences affect stability or shifts over time, ([http://archive.unu.edu/unupress/unupbooks/uu13se/uu13se02.htm](http://archive.unu.edu/unupress/unupbooks/uu13se/uu13se02.htm)).

A second set of questions arises over hierarchal territorial, political-economic, and socio-cultural organization of power. Except for very few contemporary instances, power accumulates at higher levels of territorial agglomeration, and exerts a top-down management of social-economic and environmental conditions through hierarchal governing structures, including laws and regulations with the power and institutions to coercively enforce obedience. Again, while governing bodies rarely share a great amount of power and decision making with sub-national regions and communities, the factor of taxation and redistribution of national expenditures affect which sub-national units are enabled or disempowered to pursue local projects, ([www.ilo.org/public/english/bureau/inst/publications/.../dp19408.pdf](http://www.ilo.org/public/english/bureau/inst/publications/.../dp19408.pdf)).
Then too, aside from public sector structures of governance, private sector involvement also creates hierarchal structures of power and accumulation, production and consumption, the material economics of any community life at whatever scale. How much are communities able to withstand external investment pressures that may offer economic growth or opportunity, but without any sustainable commitment to local communities, thus able to remove physical and financial capital without any penalty or shared responsibility for any social and environmental costs, (www.univ-orleans.fr/gdre09/articles/CHATELAIN-rALF-teurlai.pdf).

Another set of questions arise over development. What level of development is sustainable, and what is not; how much is growth a benefit or a liability, and how much growth should be in quantities and how much in qualities? A new road, for example, may improve transport, yet open disruptive inroads into local economies that had achieved a level of sustainable prosperity and a relatively balanced socio-economic community structure, (http://www.eveoftheapoc.com.au/Downloads/DebtVsGrowth.html). Such studies, however, go back decades to Schumpeter von Mises, (Schumpeter 1947, http://www.jstor.org/pss/2113264) and (http://mises.org/daily/1877).

Finally we live in a dynamic natural world with equally dynamic factors of human agency. And however much combined human activities over time have impacted the natural world, it has been a coevolutionary process, from adapting to nature to adopting technologies that shape elements within nature to meet human demands. But as recent worldwide natural disasters have proven, despite all our technological wizardry, we have at best extremely limited power over tectonic and other natural forces. Thus, however rationally conceived, any concept and implementation of management, whether social, economic, or environmental, faces limitations, contradictions, and illusions. But if we can actually manage any social or environmental construction for the purpose of sustainably developing that particular entity, at what scale or levels of size, quantities, and diversity would it be possible? To proceed from that question, this research will examine a set of differential scales from the Mediterranean basin as a whole, to its Adriatic arm, and the North Adriatic Hub — the region encompassing Slovenia-Croatia Istria and Italy’s Friuli-Venezia-Giulia coastal littoral. But a further examination would reduce the socio-spatial environment and economy to the level of a city such as Koper (Capodostria), to ask how local governing bodies and powerful political-economic stakeholders might, or might not, be able to develop and manage principles, policies, plans, and programs to implement a sustainable social ecology.
What then is sustainability, and how has this concept evolved? To first take the premise of sustaining human life on earth to its logical conclusion, our solar system has a finite existence, the sun burning itself out over millions of years. Second, in the grand scale of planet earth’s evolution, human beings are a recent phenomenon, with an uncertain future. And as so many species have already become extinct during our sojourn on earth, whether or not through human agency, research across the natural sciences indicate that our population has exceeded normal species reproduction rates to the point of a potential demographic crash in relation to overall carrying capacity, available resources and rates of consumption. If we couple these factors with the rate of climate change impacts on our biophysical environment, the longevity of our species remains questionable, all things considered.

To pose a counter scenario, a massive population die-off from biological causes, such as a pandemic, or from a catastrophic natural or man-made disasters such as nuclear war, would reduce the human population to more sustainable numbers. But the chaos induced by such processes might also negatively impact our ability to manage that smaller number. Another counter scenario, however unlikely, would be discovery of immense new sources of renewable energy and food sources derived from previously unexploited biochemical matter. But both would have to be globally affordable for massive concentrations of impoverished populations. Even if discovered, such a cornucopia could trigger a potential population surge to match new resources. Such scenarios are global in scope and involve relatively short time frames, which could be equally catastrophic, and even only relatively so, any unified global management is highly unlikely. Therefore, while resources may be globally transportable, rising costs coupled with declining ability of populations to pay for necessities, especially foodstuffs, indicates a paradox. Some places will face local catastrophes, while others experience local sustainability. Much of the world’s poorest human populations already survive in marginally sustainable habitats, which will become unsustainable for any human population. Impending world food and fresh water shortages will impact hundreds of million human beings with a consequent reduction of ability to charitably transfer food and other assistance from sustained economies to those in greatest need. Such prospectives generate scenarios such as Garrett Hardin’s controversial “lifeboat ethics” (Hardin, 1974), in which for some to survive, others will have to be abandoned. How and who will manage such quasi-doomsday scenarios, which ever closer to reality? Climate change science may be more
disapproved of than disproved, but presents irrefutable evidence for desertification and loss of large swathes of formerly humanly habitable lands.

From Bad News to Good News

Turning from negative global consequences to potentially sustainable scenarios, also returns this exploration from global to local. If sustainable management of public and private affairs, natural and social environments, cannot succeed beyond a limited scale, can top-down organization successfully sustain balanced development over any extended period of time? Governmental ability to use carrot-stick approaches, rewards and coercion, seldom work beyond a limited scale without excessive police control, adding costs that may offset benefits. Can any large socio-territorial units, whether nation-states or multi-state systems, succeed in application of SD policies and practices? The answers are that some might, others cannot, and what can the expanded EU really do to regulate and equalize such SD policies and practices?

It should now be clear that both SD and its management can only proceed from micro-level socio-economic environments, after which higher agglomeration may be possible. Furthermore, as earth’s terrestrial surface (30%) divides into three zones, uninhabitable mountains and deserts (20%), with the remaining 10% potentially habitable (http://ecotope.org/). But global biomes further divide into biogeochemical-climatic systems, one of the smallest being the Mediterranean Biome, found only three places outside of the core Biome surrounding the Mediterranean Sea (http://www.worldbiomes.com/).

While this research focuses on terrestrial human habitat (http://www.unhabitator.org/), which divides into bioregions, or ecoregions (http://www.eoearth.org/article/Ecoregion) according to scientific designations of climatic-ecological communities, such spatial units also include and are often dependent on freshwater systems (http://www.feow.org/). Sustainable Development (SD) has evolved into multiple discourses encompassing many spatial dimensions — global, continental, regional, national, subnational, local settlements and urban areas. It has also spanned ecological, economic, political, social and cultural spheres. At each level and sphere, contentions philosophical, scientific, and pragmatic issues have arisen over interpretation and implementation. But a core paradigm has consistently evolved though UN Organizations — the Environmental (UNEP) and Development (UNDP) Programs, in conjunction with the Commission on Environment and Development UNCED. A generation
of environmental scientists and development professionals have been trained in programs that evolved within an SD Paradigm integrating research, practices and core discourses.

The core SD Paradigm revolves around both global and local convergence into a collaborative framework for research, policies, planning and programs, that address interlinked issues of environmental and development. The UNCED found that each depended on the other; environmental conservation was not possible without economic development to meet the needs of communities who would otherwise over exploit fragile environments. Yet, without conserving such environments, those communities could not sustain their economic viability. From an initial concern with underdeveloped communities and their often endangered natural environments, global concerns evolved new views of development. Underdeveloped places may remain so, yet developed places face a crisis in overdevelopment, synonymous with excessive consumption, dwindling natural resources, conservation, consumption, and massive generation of waste with harmful impacts on natural environments and human habitat. The SD paradigm thus expanded to encompass all impacts of human habitat and agency on all earth biogeochemical systems — the webs of life: biosphere, atmosphere, and hydrosphere upon which viable human social and economic life depend.

Global environmental concerns emerge from an agglomeration of innumerable local and regional problems. Solutions to global environmental problems must therefore start with local action and change. Likewise, global economic problems impact innumerable localities, rural and urban, in which solutions must also be found closer to home. These global problem have spread to developed economies where demand for rapid capital accumulation drives away production toward cheaper locations, de-industrializing those economies, displacing workers across industries and communities, thus de-developing once developed locales.

To address development trends toward and against sustainability, requires a geographical outlook, that views people and communities as components within localized bio-social ecosystems. Although exceptionally habitable ecosystems are unevenly distributed across the biosphere, human settlements have developed around water, densely populating shoreline ecosystems. Historically, socio-technical innovation has changed human habitat toward greater urbanization. According to UN sources, as of 2005, 50% of the global population (7 billion), are now urban dwellers (http://www.unfpa.org/swp/), forcing greater densities with surrounding urban sprawl often replacing prime agriculture land.
The Mediterranean Biome: A sea of seas, a region of regions

One of the oldest biomes to support human habitat, the Mediterranean Sea and its littoral have evolved as a mosaic of micro-social ecologies and human settlements (Horden and Purcell, 2001). Through several millennia of deforestation, over grazing, soil erosion, intermittent droughts and plagues, frequent tectonic disruptions, war and famine, human habitat has survived, and currently serves over 427 million people living directly around the sea and its littoral (www.fao.org/sd/climagrimed/c_2_02.html). Settlements stretch up mountain slopes, into deserts, up river valleys, and precariously hang on to island cliffs. Mediterranean populations swell by more than 200 million tourists annually with increasing impact (www.pcbs.gov.ps/Portals/_PCBS/Documents/KS-SF-08-095-EN.pdf), thus this region represents an excellent sample in which to assess the viability of the SD paradigm in theory and practice. But the Mediterranean Sea region is too diverse, localities sharing only a few generalized factors of climate, ecology, and terrain, but divided into more coherent sub-regions present greater opportunities for devising any set of SD policies, plans and practices to implement and manage SD processes. Thus, the most effective focus for examination of SD theory and practice would be at the level of a community or bioregion, however ill-defined by statistical or other measurements. In practice, government, private, and academic sectors, also tend to more closely connect with regional civil society networks, as local socio-economic, ecological and geographical factors may also sprawl across political boundaries.

Generalized Ecological and Development Science Background to SD

Over 20 years of global experience demonstrate the importance of the UNCED initial slogan on global and local, but an intermediate set of spatial and ecological zones is also necessary to bridge the gap between local with global. Initiated by the International Union of Biological Sciences (IUBS) the International Biological Program (IBP) 1964-1974, focused on productivity of biological resources, environmental change and human adaptability to such changes, while mapping Biomes as ensembles of environmentally determined ecological zones, both impacting and impacted by human agency (http://www7.nationalacademies.org/archives/International_Biological_Program.html). But Biome units, e.g., Tundra, Boreal, Steppe, Mediterranean, Desert, etc., needed a further breakdown into smaller more discreet units of bio-geo-chemical processes, which were further mapped out as bioregions, eco-regions, etc. Necessarily including impacts of human agency on environment resulted in several approaches. First a further development from the
IBP results, entitled *Man and Biosphere* (MAB) now established under the UN *Education, Science and Cultural Organization* (UNESCO), identified critical core areas within each biome, labeling them as earth heritage sites that needed to be strictly controlled for conservation of the genetic fabric of each biome. Second, the UNEP along with scientific organizations and academies, launched a number of smaller scale studies of human-environment interaction.

Following the *UN Conference on the Human Environment* (1972 Stockholm), which had a direct impact on EU policies, the UN formed a *World Commission on Environment and Development* (WCED) chaired by Norwegian Prime Minister Brundtland. The WCED mandated to investigate how two United National Organizations (UNOs), the *UN Development Program* (UNDP) and the *UN Environmental Program* (UNEP), could collaborate to address myriad problems of Human and Natural Environments. The resulting report, *Our Common Future* (1987), described SD as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

The report became a founding document for both *Sustainable Development* (SD), and the 1992 *UN Conference on Environment and Development* (UNCED), also called the *Earth Summit or Rio Summit*. The UNCED resulted in agreements on Biodiversity, the *Framework Convention on Climate Change* (UNFCCC), and the *Agenda 21* action plan, adopted and signed by 178 countries. (all on-line references from within the UNO http://www.un.org/en/).

A second step on the road toward SD evolved from the Istanbul UN *Conference on Human Settlements* (Habitat II - 1996) twenty years after Habitat I (Vancouver, Canada 1976). Habitat II raised further questions about how to manage sustainable development for the entire range of human settlements of all sizes. Focusing on humanity’s *basic needs* as a human right, the meeting formally initiated a UN-NGO partnership with regional offices and national committees coordinated though the Nairobi, Kenya, based Centre on Human Settlements. Together these UN meetings initiated a coordinated SD process involving governments, academic natural and social sciences, and concerned NGOs representing worldwide civil society, in following a feasible agendas for monitoring and reporting on environmental and socio-economic problems. It was from this matrix of UN sponsored meetings, international conventions and organizations that SD was launched as a trans-disciplinary matrix to manage policy planning and action. Thus was enabled what I label the *SD Paradigm* (SDP) and associated *Core SD Discourse*. 
Evolving with the millennium year (2000-2001) the UN action agenda formalized as set of *Millennium Development Goals* (MDG) for the new century, which was ratified by the UN General Assembly in 2002. Also known as *Rio+5*, this document established 40 chapters for priority action, including principles designated as *Best Practices*. It further enabled a Local Agenda 21, with an associated *Local Best Practices*, formulated by sub-national administrative units, including many Urban Governments, who were pushing ahead with managing SD policy, planning, and action. Subsequent international meetings were held every 5 years to assess progress and examine new problems. But global implementation of Rio+5, MDG and Agenda 21 increasingly faced confusion following political events of 9/11 and the USA’s invasions of Afghanistan and Iraq, causing some processes to be shelved using national security priorities as excuses. In the following decade of global uncertainty, a *Global Financial Crisis* of 2007-2009, also called the Credit Crunch was triggered by speculative financial practices. Economic strategist, Edward Luttwak, labeled this emerging global crisis *Turbo-Capitalism* (Luttwak, 1999), predicting a coming collapse. Following up Luttwak’s predictions, economist Robert Reich labeled this process as *Super-Capitalism* (Reich, 2007) generating successive waves of recessions, collapses and government bail outs. Thus the 21st Century began with great expectations, which rather quickly collapsed into a decade of global socio-economic and political disasters that further constrained ongoing SD efforts. Entering this century’s second decade, we face a convergence of global socio-economic and political crisis along with a rapidly emerging set of ecological crises partially the result of human agency connected with *Global Climate Change*.

**MANAGING ONGOING CONVERGENT CRISES: FOCUS ON SD**

The forthcoming 2012 Rio de Janeiro Earth Summit (Rio+20) may be a deciding event for world history and human future as leaders of business and government meet with scientific, NGO and Civil Society participants, to address critical SD issues. This meeting may face an even more grave question of survival for many human habitats and populations.

Late 20th century political, economic and scientific elites struggled with questions of how to manage sustainable development, and despite some success, stumbled in their search for solutions of the major issues that exponentially increased in severity. As of 2011, we face ever growing and rapidly changing worldwide crises across environmental, socio-economic and political arenas. Managing sustainable development has reached the edge where many places struggle for survival, with shrinking agricultural capacity and growing ecological...
problems challenging world food production. Water is always a limiting factor for agriculture and for human habitat. Much of the world’s Arid Belt already suffers from severe drought and desertification, (www.afedonline.org/afedreport/english/book7.pdf), while increased frequency and severity of cyclonic activities creates chaos in both coastal zones and inland flooding (wind.mit.edu/~emanuel/anthro2.htm). Aside from possible correlation between climate change and tectonic activities, human habitats face enormous costs from natural disasters. Such impacts on global economic activity affect the ability of local and national economies to rebuild infrastructure, rehouse refugees, and restart civil society. To maintain 20th century lifestyles is an increasing challenge, especially for highly developed, urbanized societies. This problem matrix severely constrains national political economies to manage their human, natural and capital resources, and to redistribute resources from place to place as needed.

The 1995 Barcelona Europe-Mediterranean Conference issued in a multi-state regional framework within which SD and other issues could be cooperatively organized and managed. The resulting Euro-Med Partnership (EMP) established socio-economic and intercultural organizations among EU and non-EU nations that somewhat shared Mediterranean cultural histories, which attempted to solve an wide range of differences and share an equally wide range of potential collaborations. Although starting up with good intentions and support from major stakeholders, practices began to lag among countries, as not all exerted similar effort to actualize the principles. Once again, the political events of 2001 and US international policies had global consequences, opening a rift between North (European) and South (Arab-Muslim) Mediterranean, while exacerbating Arab-Israeli conflicts, Over the past several years the Arab Spring, a series of popular revolts, has dramatically shifted internal political alliances and with the European states, especially former colonial powers allied with the US in supporting dictatorial Arab regimes. At the time of this writing, the Libyan situation of NATO militarily supported regime change is still unfolding, adding ambiguity to any Euro-Med collaboration.

Following EMP modifications in a 2005 meeting (Barcelona+10), French President, Nicolas Sarkozy, organized a 2008 meeting of all 43 heads of Euro-Med states, proposing a Union for the Mediterranean (UM) as a reinvigoration of the Barcelona process. While endorsing major EMP principles, such as a potential Economic Free Trade Zone, economic, social, and cultural issues, the meeting put Politics and Security on top of the agenda. One potentially significant result for the NAH region was inauguration of the Euro-Mediterranean University
in Piran, Slovenia, which is emerging as a major post-graduate center for intercultural dialogue. But once again, Mediterranean political issues have taken over, and the current Libyan crisis will have many unforeseen consequences on Euro-Med processes. Therefore, it is auspicious to look north to the NAH region for a potential of a locally organized collaborative management approach to SD policy and planning.

**Managing the Global Economy, One Village at a Time**

Returning to this paper’s original motif, *Think Global [BUT] Act Local*, requires a new geographically flexible and sectorial diverse SD Management approach that can be modified and adapted to multiple locations and their material conditions, or give up on any such universal SD model. Previous theories of development, such as the *Rostovian Take Off* model (http://www.nvcc.edu/home/nvfordc/econdev/introduction/stages.html), assumed a universal 5 stage progress toward socio-economic modernity, and suggested an illusory even-playing-field for liberal free-market economic theories to benefit all. But as an African proverb states, “it takes a village to educate a child,” at what scale of geo-social economic unit can SD be realized to creates an optimally distributed level of equity and productivity? The SD paradigm and discourse demands some measure of distributive social and environmental justice. Is this possible in the 21st century given the range and levels of socio-economic, political, cultural, and ecological problems facing seven billion human beings inhabiting diverse environments with unequal natural resources and locational advantages? Management at such a scale seems politically impossible.

**Local Best Practice Policies for the Northern Adriatic Hub Region (NAH)**

Design and management of any viable SD model must be adaptable to specific local circumstances, while emerging from local socio-cultural, ecological and historical conditions. How can such micro-level efforts be merged into higher levels of agglomeration, and how can such district or regional levels of collaborative policies and practices be managed? In the specific instance of the Adriatic Sea (NAH) and its littoral, its political-economic and socio-cultural history is at least as complex as its geography. Terrain, climate and vegetation quickly shift from Mediterranean landscapes to rugged interiors, continental climate and ecosystems. If we have already assumed the entire Mediterranean Sea basin is in all ways too large and diverse in which to create any form of SD management, other than in limited arenas, such as clean “Blue Flag” beach policies and practices, what about the Adriatic? Even if all the states sharing the Adriatic were EU members, and agreed to find common cause in
specific matters, how would any SD management policy emerge in practice? Perhaps a sub-regional experimentation. The Northern Adriatic Hub (NAH), would encompass a portion of Italy’s Friuli-Venezia-Giulia, and the Istrian region of Slovenia and Croatia as far south as Pula. Historically, this region has experienced multiple Imperial rulers and conglomerate states, i.e., Yugoslavia, also multiple reorganization into separate nation-states. But perhaps what once divided may find common cause in a relatively common littoral economy, varied from their respective hinterlands. Trans-national coalitions among European Parliamentarians may also facilitate more localized regional SD policies, but the model would ultimately have to stand on four legs: (1) local government, (2) private sector business and industry, (3) education and academic research, and (4) civil society and NGOs. These cross-national sectors would then confer and collaborate on a wide range of SD issues, from environment to economy, culture and heritage to social organization.

As both global and local economies are increasingly interconnected and dominated by a knowledge economy that generates social capital, increasingly enhanced through social networking, it has as many problems as prospects. Flows of information through networks connecting nodes, create a vast global grid that organizes individuals, communities, cities, regions, and countries on the basis of information flows. Urban-regional planner, Manual Castells, developed concepts and theories of the *Informational City* and *Networked Society* (Castells, 1989 & Castells, 1999), which have since come to pass. This framework has been further developed through the *Global and World Cities Research Network’s* (GaWC) hierarchal model (http://www.lboro.ac.uk/gawc/), that assesses all the world cities, according to multi-sectoral flows of information related activities rather than spatial area or population size. Thus when cities in the NAH really fulfill the prospects of a HUB through effective multi-factoral, multi-sectoral networking and information exchange to create a highly efficient urban region, inclusive of suburban development and smaller communities within the region, its role in the international economy may develop accordingly. But internal socio-economic, communication, collaboration and efficiency within the region, including logistics and transport, may be even more important than international connections.

Regional assessment of internal multi-factorial capital resources, their management, distribution, investment and allocation (i.e., circulation), are critical to SD policy planning and programs, especially through accessing DICT system networks. But such networks need both digitally and commercially literate participants thus focusing emphasis on education and
practical experience, especially assessing human resources as social capital and initiating lifelong learning systems to continually enhance civil society and the knowledge economy. When sectors of society are left too far behind the frontal edges of socio-cultural and political-economic affairs, the whole society suffers.

**Dilemmas and Prospectives**

Can sustainability be managed, if so, how, if not, what are the consequences. This remains a frequently asked question across a global spectrum of socio-economic and political discourses. Social management of sustainability is thus multidimensional, multifaceted, and multinational, the study of stakeholder involvement becomes trans-disciplinary. Thus SD implicitly involves social management as a multi-stakeholders partnership to share responsibility for dialog and policy discussions that lead to concrete plans and action. Critical assessment is needed of local and regional capital for investment in innovation, technology transfer, and social entrepreneurship incubators. The internet and ever evolving open sourced software applications provide an increasing online community base for information and mobilization. Expanding e-government services create information and referral (I&R) service centers to accelerate circulation of information. Various EU information and support resources can facilitate circulation ideas on best practices, policy, scientific and technical research among NAH local governments and civil society stakeholders. Baseline studies that collect local and regional data on changing socio-environmental resource are integral to SD management, and can involve university researchers, students and local stakeholders. SWOT Visioning studies also assess changing impacts on local aspirations and global trends that may potentially impact local eco-nomic/eco-logical development potential.

Major Trans-national corporations (TNCs) have reacted to Green lobbying networks and proponents of social and environmental justice, initiating a twofold response. A first response was propaganda, advertising, and public relations campaigns, *green washing*, to counter negative images. A second, and more effective response came from board rooms and top executive suites, as many corporate executives and shareholders began to understand the greater benefits of sustainability and implement top-down changes to improve their reputation, stock values and shareholder confidence. Corporate SD leadership also emerged to promote and implement innovative sustainable change throughout their supply chains and operations, which improving overall efficiency and cost saving, thus profitable.
Since 1992, progressive firms seeking to combine social and environmental responsibility have organized corporate sector SD lobbying, e.g., the World Business Council for Sustainable Development (WBCSD). But what about the small to mid-sized firms (SME), which cannot afford highly paid CSR consultants or hire CSR expertise? The European Commission has established a Director General for Enterprise & Industry (DG-ENTR) especially to assist SMEs, while with the global recession, many emerging social entrepreneurial organizations are able to provide such expertise at low cost to SME firms. As one facet of SD, Social Entrepreneurship (SE) connects flexible associations of individuals with social consciousness and a desire to assist underserved social areas, but also have innovative entrepreneurial motivation. Many SEs are formed while members are still university students. Today, SD and SE have become embedded in mind sets of a growing number of university students and graduates who seek innovative approaches to make a living while contributing to positive social and environmental efforts. Such individuals combine into expanding networks of digitally literate, intellectually acute, and widely knowledgable, young SE practitioners who form an formidable force to link with multi-sectoral programs.

A focus on the NAH suggests a comparative longitudinal study across the three nation region (Italy, Slovenia, Croatia), to assess costs and benefits accruing to local communities and to international corporate entities in the global tourism and hospitality sector, including both air travel and environmental impacts. One can never discount the McDonald’s effect, a global standardization of product and cost, with strict franchise clauses to protect their international supply chain (http://web-japan.org/trends01/article/010820bus_r.html). Such a study should first enumerate how many international tourist-hospitality firms operate in each countries, especially in the coastal zone from Venice to Dubrovnik. A preliminary estimate indicates that the ratio of locally to globally owned services is better than an international average for high tourist areas, yielding possible interesting results about causes and cost-benefit factors.

Alternatives: Cultural and Ecotourism

“All of Europe is a Museum” (http://www.europeanmuseumacademy.eu/) Culture evolves throughout history. Both Europe and the NAH, have enough history-as-artifact to fill any touristic thirsts. But as culture evolves, many local arts and crafts continue to produce high quality creative works across all forms of media, performative and visual products. Links between EU, national and local institutions and organizations support and assist individual artists, artist groups and communities to develop their cultural expressions
and production, EU and international circulation of cultural and creative products, but it takes local initiative to weave such production and support into their cultural tourism fabric, and then effectively promote it. To date, the NAH has produced above average quality of information and media promoting cultural tourism, from ancient sites to post modern arts, but inter-regional cooperation in policy, planning, and programs, could enhance its touristic attraction to a much wider audience.

Europe and the NAH are resplendent with natural wonders, forests, mountains, and numerous agricultural villages still set amid fields, vineyards and orchards. But in the face of globalization and EU wide regulation and economic pressures, many small farming communities are facing hard times. Ecotourism that takes visitors off the beaten tracks and out of sprawling cities and resorts can enliven both the tourist experience and assist SD in local communities. Long established tourist routes, such as Slovenia’s Karst Wine Route (http://www.slovenia.info/?vinska_cesta=326&lng=2), can assist in local SD and expanding the opportunities for tourists to experience local ensembles of nature and culture, but more effort needs to be put into planning networks and nodes for traveling and stopping along the way while following such routes. Decentralization is axiomatic to SD and redistribution of tourist expenditures away from crowded resort areas and packed city tourist areas.

Bringing together Cultural and Ecotourism should be an objective of every national, regional, and local tourist board, which also means reaching out to both cultural and rural communities to involve their representatives in such network planning. This would include activating international social networking across the internet, targeting people-to-people communication for input and feedback on what people want from their touristic experiences, especially those who are already committed to SD in their own communities, and those on the edge of shifting toward more sustainable lifestyles.

Of course, all these processes involve management. But what kind of management? SD is like holistic health, if one part of the body is weak or ill, then the whole body suffers. To heal the whole community is also to heal individuals. New SD approaches such as the World Bank-UN sponsored, community based WEHAB project (Water, Environment, Health, Agriculture, Biodiversity), take an integral approach involving preventative medical, ecological and social health to develop healthy economies as well as community ecosystems and individual well being http://www.cbd.int/events/wssd-wehab.shtml.
Sustainability cannot evolve outside of cooperative multi-sector, multi-level, co-evolutionary development. Management Education thus turns toward community based approaches to integral economic, town, rural and regional planning, involving a shared sense of responsibility among professionals and citizens from all walks of life.

LIMITS TO GROWTH: QUANTITATIVE OR QUALITATIVE
Since Malthus, theories on overpopulation questions of growth, and limits to growth, have been discussed across a wide range of ideological and scientific arenas. Quantitative growth without factoring in costs or changing proportional distribution of benefits remains problematic. The SDP has generated new approaches to environmental economics, although food resources are a zero-sum game, as supplies fluctuate, those who can afford to will consume more, those who can’t will consume less. As food stocks are managed for a global market, prices will rise or fall in relation to supply and demand, thus potential agricultural futures cannot meet global demand for prices that are universally affordable.

Given the global debt crisis, unsustainable growth-oriented development and corruption affects individuals, commerce and industry, national governments and international financial institutions. Quantity over quality coupled with demand for rapid capital reproduction and accumulation, has proven a failure however much a small segment of humanity have profited from it (Reich, 2007).

CONCLUSION
Given global ecological and climate changes and associated economic and political discord, the question must now be asked — is the future of human habitat and human socio-economic relations sustainable? On strictly economic terms, the answer in NO! When we add ecological sustainability into the equation, the cumulative answer is a resounding NO!

This turns us to the question — is there a future for sustainability? — and the answer is yes, and no. So long as global and national institutions, along with multitudes of individuals, continue to think and operate in a business-as-usual mentality, the answer is still NO! But if societies and individuals can make psychological changes to view human existence as co-evolutionary within local bioregions and global ecosystems, to self-manage our relations with the natural world and the human habitats, built environments and productive economic forces, the answer is YES. That answer, however, depends on factors that delve deep into human
psychological and even genetic propensities, that challenge existing systemic constructions of identity, ethnicity, and social class.

In many ways, Sustainable Development projects a new paradigm for humanity, but not one that is easily accomplished. How each individual and community choose to manage their lives and actions, will create future scenarios and realities throughout the narrow slice of planet earth’s surface that we inhabit. Despite technological capacities, human power has limited ability to affect tectonic processes, solar, cosmic, and earthly radiation, macro-climate change, oceanic and atmospheric currents. We do, however, have the potential capacity to manage and change ourselves toward adapting sustainable lifestyles and practices. But that opportunity seems to slip away in doubt and uncertainty, or even denial of planetary changes.

Both sustainability and development start in place — at home with each individual, family and community. At the locus of Mediterranean, Alpine and Central European ecosystems, the Northern Adriatic Hub (NAH) has all the resources at its disposal to make a difference and to promote a sustainable management of human and natural resources. Without reference to other countries that share this Hub region, Slovenia has taken a green policy path toward managing sustainability, which looks good on paper and in regulations and touristic brochures, but only at each community level do those policies transform into practice.

Within the NAH a large number of locally organized private-public partnerships and cooperatives may further evolve with worker participation in ownership. But collaboration is also needed with individual entrepreneurial enterprises, to form a strong network for promoting and managing sustainable development throughout the region. That process is exponentially enhanced when coupled with an educational network that promote criticality and creativity through social learning and building individual self confidence. Reorganizing schools and universities into lifelong learning systems that promote such SD values at each step of the lifecycle, provides a matrix for optimizing manual, affective and cognitive abilities within social processes.

In summary, a collation and qualitative analysis of evidence on SD history, theory, policies, planning, and practices in general, more specifically to the Mediterranean region, and most specifically to the Northern Adriatic (NAH), would indicate limits to large scale and scope SD are impractical. This research has not yet examined NAH local case studies to assess
effective community SD projects, especially those built around adapting or innovating Local Agenda21 Best Practices (www.iclei.org/index.php?id=1613), which might be locally replicable. But to conclude such further studies would be the next step toward development of any theoretical model for sustainable development in this region. If local authorities and civil societies can share and learn from each other’s experiences, potential networks might develop. The next question would be how large and diverse could such networks grow — limits to growth — could they encompass the entire NAH region, or what part of it, and sustain SD efforts through ups and downs amidst local impacts from global changes. These questions need local researchers to find answers over time, thus suggesting collaboration among regional universities, faculties, and student researchers with local community roots.

REFERENCES