



The Global ARC

Global Action Research Center

Creating Just and Healthy Bioregions The Role of Action Research and Community Engagement

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Introduction

This paper describes the vision, mission and organizational strategies of The Global Action Research Center (aka The Global ARC). The Global ARC is a not-for-profit organization—in the process of becoming a 501(c)(3)—led by a mix of educators, researchers, scientists, professionals and community organizers all of whom are dedicated to critical study, open dialog, social learning and creative problem solving. The Global ARC strives to bridge sustainability solutions worldwide by building trusted relationships and knowledge networks. The organization's mission is to enable just and sustainable bioregional development through collaborative partnerships, networking and the integration of urban and rural sustainability solutions.

Bridging Knowledge and Action: The Mode 2 University

The university's role in society is dynamic. Its role is shifting now in the face of globalization and heightened competitiveness worldwide among nations and city-regions. In an article on this subject—titled “Universities, Localities and Regional Development: The Emergence of the 'Mode 2' University?”—Harloe and Perry (2004) document how “There has long been a tension between the roles of the university in servicing the needs of sub-national economies and civil societies, those of the national state and those of learning and the pursuit of knowledge in an abstract sense” (p. 212). Harloe and Perry identify forces that may be leading to a new “mode of knowledge production” as universities are faced with increasing societal demands and expectations. The position in liberal democracies through much of the twentieth century can be accurately characterized by a significant degree of separation and segregation between the university, the state and the market. Recently, however, it has been posited that the balance is shifting away from relative autonomy towards a new 'mode of knowledge production' in which the growing engagement of universities with their regions and localities is an important aspect. (Harloe and Perry 2004, 212)

The kind of university engagement Harloe and Perry refer to cuts a number of ways. On one hand, some university leaders and scholars advocate the corporatization of the academy following a conservative ethos focused on commercialization. This stems in part from the increasing stress being placed on universities to enhance regional innovation and competitiveness “via harnessing the economic benefit of science and knowledge, in which the sub-national scale plays an important role” (Harloe and Perry 2004, 216). On the other hand, some university leaders and scholars aim to make the academy more accountable from social justice and equity standpoints involving critical pedagogy and civically-engaged research and service learning. These two

types of engagement are not necessarily mutually exclusive. Harloe and Perry argue that these trajectories constitute a mixed bag including opportunities and threats embodied in conflicts over the university's mission, internal culture, governance and allocation of resources.

How significant are these changes in the disposition of research universities? Some characterize the changes as part of a broader societal shift from a Mode 1 model of science and research to a Mode 2 model of science and research (Gibbons 1998; Gibbons 2000). Mode 1 science is organized by disciplines and conducted by scholarly communities of practice that use ontological frameworks defined by their discipline. This structure, Gibbons argues, "provides the guidelines about what the important problems are, how they should be tackled, who should tackle them, and what should be regarded as a contribution to the field" (Gibbons 1998). In contrast, Mode 2 science is characterized by knowledge production in the context of applications, transdisciplinarity, heterogeneity and organizational diversity, enhanced social accountability, and a more broadly based system of quality control (Gibbons 1998).

How does this shift from Mode 1 to Mode 2 factor into the dynamics shaping research universities and why is this worth considering? Harloe and Perry's (2004) work is telling; they spell out four characteristics that define a Mode 2 University:

First, it is closer to government and the market and is more directly responsive to national and regional needs in teaching, research and specific enterprise activities. Second, it conducts research in an interdisciplinary fashion and according to new criteria such as economic and social relevance. Third, it is innovative and interacts in a number of different networks and it is a key player in evolving systems of regional and local governance. Finally, changes in mission and practice are accompanied by internal turmoil, reorganization and restructuring. (p. 217)

Researchers can leverage the forces driving a shift from Mode 1 to Mode 2 universities for purposes of promoting sustainable development. Indeed, there is a rising tide of work focused on such aims. Highlighting the importance of equitable knowledge co-production and use through university-community partnerships and collaboration, we are beginning to see books like Farrant et al's *Approaches to sustainable development : the public university in the regional economy*; Gilderbloom and Mullins' *Promise and betrayal : universities and the battle for sustainable urban neighborhoods*; Jones et al.'s *Creating knowledge, strengthening nations : the changing role of higher education* ; Shapiro's *A larger sense of purpose : higher education and society*; Rhoads and Torres' *The university, state, and market : the political economy of globalization in the Americas*; and Sonnert and Holton's *Ivory bridges : connecting science and society* (Farrant 2001; Gilderbloom and Mullins 2005; Jones, McCarney, and Skolnik 2005; Rhoads and Torres 2006; Shapiro 2005; Sonnert and Holton 2002). This body of work can add significant value to the discourse and praxis of civically-engaged research aimed at promoting sustainability. Upon reviewing such work, the essential role of infrastructure and service learning becomes clear.

Building infrastructure for civically-engaged research and service learning

Infrastructure is vital to the efficacy of research and service learning. The National Service-Learning Clearinghouse (NSLC) defines service learning as "a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities."¹ Integrative teaching and learning of this sort requires a new type of infrastructure. Infrastructure constitutes the underlying framework, interactive systems and organizational/social/intellectual capital necessary to enable, sustain and enrich service learning. Defined in this way, infrastructure includes conceptual, epistemic and cultural dimensions as well as institutional and technical dimensions (e.g., information, communication, and visualization technologies useful for transdisciplinary

collaboration and knowledge management). The efficacy and societal impact of service learning depends upon theoretically-informed, university-community partnerships. The role of infrastructure is key.

Progressive Planning and Sustainability: The Global Action Research Center

The Global ARC is guided by a philosophy dedicated to eradicating root causes of poverty, social injustice and environmental degradation. At the heart of this philosophy is a proactively creative commitment to linking knowledge to action for the common good. We promote planning-related research and action focused on community building and sustainability solutions that are networked, systems-oriented, globally-minded, ecologically sound and holistic.

The Global ARC's philosophy values community-based organizations, civically-engaged research, methodological pluralism, the role of intellectuals and universities in bridging science and society, and participatory democracy in the context of progressive planning. Progressive planning faces multiple and interlocking challenges that go well beyond land use and the built environment. Current financial and economic crises are generating new types of stresses and demands on governments worldwide. The faith that market forces alone can lift all boats (i.e., spur equitable and sustainable wealth creation for the common good) no longer holds the same sway it did during the past several decades. Deregulated entrepreneurial capitalism has lost some of its luster. The range of wicked problems we face calls for intelligent teamwork including efforts to dovetail planning, economic development, ecological management and regulatory innovation. Examples of wicked problems include watershed and ecosystem degradation as a result of rapid urbanization and high volumes of non-point sources of pollution that transcend jurisdictional boundaries; food and water insecurity due to climate change; and the globalization of hazardous waste flows which gives rise to new disease vectors and environmental justice problems.

Progressive planners and activists promote sustainable development in neighborhoods, cities, city-regions, rural towns and hinterlands. Progressives understand that the world is complex and that the problems we face require solutions that are networked, systems oriented, globally minded, ecologically sound, and holistic. Progressive planning combines critical theory, practical know how, organizing skills, vision and action in community-based efforts to eradicate poverty, social injustice, and unhealthy living conditions. Progressives envision a healthier and more livable world—a world where people flourish by working together for sustainability, community well being and the common good.

The term *progressive* is used in an increasingly wide range of academic, grassroots, institutional, policy and planning contexts. In addition to progressive planning one can find diverse calls for progressive regionalism, progressive globalization, progressive governance, progressive communications, progressive cities, and progressive networks. Planning has its roots in progressive ideas. In the US case this includes the Progressive Era reforms of the early 20th century. Progressive planning combines critical theory, practical know how, organizing skills, vision and action in community-based efforts to eradicate poverty, social injustice, and unhealthy living conditions. Progressive imaginations create actionable visions of alternative development for the good society.

Chester Hartman (2002), a long time champion of progressive community-based research and planning for affordable housing and community development, identifies the following themes as key dimensions of a progressive agenda: “social justice, particularly as it relates to issues of poverty and racism; the relationship of research to activism; the importance of networking; the various organizing roles one can play; the dynamic between power holders and those who challenge the system that supports them; how urban planning skills can be used as an empowerment tool; and the value of chronicling and analyzing the activism one is involved in” (p. 1). Tom Antotti is a progressive community-based planning researcher and scholar at Hunter College in New York City. He has been serving on the Steering Committee of the progressive Planners Network since 1975, and

he coedits *Progressive Planning Magazine*. Angotti (2008) defines progressive community planning as “planning that seeks to achieve local and global equality, social inclusion and environmental justice” (p. 8).

A research-action framework that addresses 21st century challenges

It is imperative that we instill eco-efficiency, equity and green cultural values into our systems of production, distribution, and consumption (including how we measure the success and failure of development). Doing so requires collaboration across public and private sectors and knowledge commons. The Global ARC’s philosophy provides a research-action framework that addresses 21st century challenges concerning urban and regional development. It does so by pointing the way to resources and efforts that can: (1) foster global-mindedness and analytical capacity to bridge spatial scales (from neighborhoods to world systems) in planning research and professional practice; (2) help us study, understand and improve city-regions as socio-ecological places with diverse, often competing, cultures and values, and (3) extend the aims of progressive regionalism to include metropolitan-rural relations and interdependencies.

The Global ARC has four major projects:



1. DARTS (Database for Action Research Toward Sustainability)

The Global ARC uses an interactive Sustainability Database for organizing the challenges, solutions, and opportunities that our members want to share for research, social networking and action purposes. The database has 6 broad *areas of concentration*: • Food • Water • Energy and Climate • Land and Ecosystems • The Built Environment, • Health and Human Development. The Sustainability Database is designed for planners (academic and professional), community-based organizations, social entrepreneurs, and others from both the public and private sectors who are civically engaged (at local, regional, national, and/or global levels) in efforts to create sustainable and healthy communities.



2. JOURNEYS OF THE GLOBAL ARC

Journeys of the Global ARC are field research and learning expeditions that focus on sustainability solutions in varying regions of the world. The Journeys draw attention to and bridge sustainability solutions through multimedia and knowledge networking. From the field, the Journeys: (i) create content for the Global ARC’s Sustainability Database by chronicling a diversity of solutions to unsustainable development; (ii) broadcast promising struggles to improve quality of life and place through the power of storytelling, multimedia and social networking technologies; and (iii) strengthen and interconnect the Global ARC’s partnerships.



2. KNOWLEDGE COMMONS (to be developed)

The Global ARC’s Knowledge Commons will become an Open Access digital library that solicits, archives, and interconnects published resources in support of community-based efforts to link knowledge and action for healthy and sustainable development. The objective is to encourage knowledge discovery and networking across a range of diverse boundaries. We are especially keen to link progressive community-based planning initiatives with knowledge in the sciences, the arts and humanities, culture industry, and business.



4. CASE STUDIES: A PARTNERSHIP PROGRAM FOR SUSTAINABILITY

As a Center, The Global ARC will select and concentrate on a few carefully chosen projects (case studies) concerning water, food, and/or energy. The Global ARC will play an active role in the development and scaling up of these select projects. We see an especially urgent need to identify and support solutions that create green jobs following Principles of Responsible Investing and ESG criteria: Ecological stewardship,

Social justice and good Governance). A key element of this program involves capacity-building for project development, evaluation, science communication and knowledge networking.

The Sustainability Database is composed of challenges, solutions and opportunities. The challenges are anchors around which everything is organized (i.e., solutions and opportunities are tied to challenges). For instance, the challenge to reduce vulnerability posed by water scarcity in San Diego, California could include rain water harvesting off roof tops as a solution. Posting opportunities is optional. The database enables The Global ARC's contributors to cross reference one another's solutions. The idea is to enable organizations to share their challenges and solutions in a holistic and comparative framework designed to stimulate knowledge-action networking, especially at a regional scale.

KEY DEFINITIONS

Member: A *Member* is anyone who registers to the Global ARC web site. There is a registration link on the home page. By registering and becoming a member you can comment on posts (challenges, solutions, opportunities) created by The Global ARC's contributors. Members become "Contributors" when they enter content into the Global ARC's database. The general public can view all the content on the web site, but only members can post comments and upload content as a contributor.

Contributor: A *Contributor* is a Global ARC member who publishes to The Global ARC's Sustainability Database (including challenges, solutions, and opportunities). Members automatically get Contributor Status (as soon as they register and get a Global ARC account).

Challenge: A *Challenge* puts the spotlight on a significant problem, concern, or issue. Challenges set the stage for action by inspiring communities and researchers to work together on sustainability solutions. As a database entry, Challenges include an overview statement, goals, actions, a call for research and optional supporting documentation. The idea here is to encourage contributors to articulate actionable vision (i.e., challenges) in terms that can be understood across disciplines and sectors.

Solution: A *Solution* is an applied, community-based approach to a challenge that addresses a particular problem, concern or issue. Solutions might be at a very early stage of development, or quite far along with significant results ready to share (progress, lessons learned). Solutions are the heart of the database (challenges provide meaningful context/inspiration). In the spirit of promoting meaningful discussion, what someone calls a *solution* can be challenged via thoughtful comments (is it really a solution, how do we know?).

Opportunity: An *Opportunity* is an invitation to do something (join forces) with those engaged in a solution. This could be a paid or unpaid research internship, a job, a contract, a one day volunteer event, or any other opportunity to add value to a Global ARC solution.

Table 1. Community Engagement for Just Sustainability: Key Principles and Approaches.

Principles	Approach
Place-based; take into account complexity, multiscalar flows & networks	<ul style="list-style-type: none"> • Facilitate multidisciplinary, place-based, action research taking into account how local, regional and global forces interact. • Highlight urban-rural interdependencies by making hidden resource and energy flows/transfers more apparent.
Integrative and multidisciplinary; weave together knowledge commons, create synthesis	<ul style="list-style-type: none"> • Cross fertilize planning with sustainability science and other relevant fields through better communication and collaborative means. • Create incentives for integrating increasingly diverse types of data, information and knowledge (e.g., physical, biological, socio-technical, expert and non-expert).
Normative; articulate critical standpoints while avoiding fundamentalism; promote justice	<ul style="list-style-type: none"> • Promote the three E's of sustainable development (equity, environmental stewardship, and economic efficiency) in a whole systems approach aimed at eradicating root causes of poverty, social injustice and environmental degradation. • Raise consciousness of asymmetrical power relationships and uneven development (calling into view social and environmental justice issues, ethics and the sociology of knowledge)
Historical and Forward-looking; action-oriented	<ul style="list-style-type: none"> • Articulate historically-informed views of alternative futures (i.e., actionable "Vision") sensitive to issues of class, race, gender & ecology. • Pursue a core set of pressing problems/projects that require regional-scale intervention. • Establish multi-sector constituencies (including university-community partnerships), networks and cultural bridges necessary to advance progressive agendas for the common good.
Collaborative and communicative; embrace values of inclusiveness, transparency and accountability	<ul style="list-style-type: none"> • Foster relationships and networks driving the shift from "planning for the public" to "planning with the public" (good governance). • Devise creative ways (e.g., multimedia narratives) to improve the co-production of knowledge, research translation and communication for the common good. • Build sustainable cyberinfrastructure that supports the continual improvement and progressive use of regional information systems and planning and decision support systems.
Comparative and evidence-based with metrics for evaluation	<ul style="list-style-type: none"> • Encourage comparative methods in research and education as a way to foster global-mindedness in regional planning theory and practice • Support efforts (often led by non-profits and regional planning organizations) aimed at creating regional indicators and informatics for measuring progress toward sustainable development. • Devise performance-based measures of sustainability solutions, programs and policies to promote learning and continual improvement.



DARTS

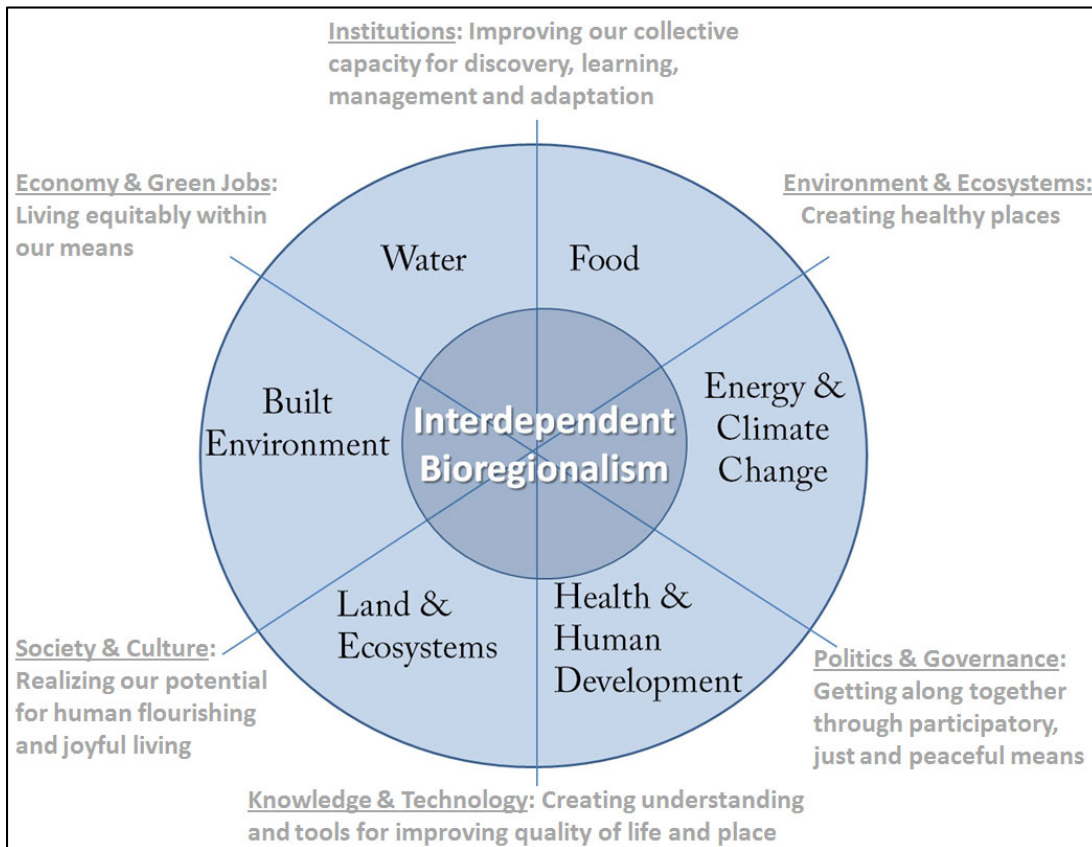
Database for Action Research
Toward Sustainability



<http://www.theglobalarc.org/programs/database/>

- Browse to see what others are doing,
- Comment on existing sustainability challenges and solutions, and/or
- Contribute a challenge and solution of your own

Figure 1 (below) shows the six major Areas of Concentration in the Global ARC's database (i.e., food, water, land, energy, the built environment and health). The six challenges surrounding the piechart (e.g., creating healthy places) constitute a broad framework for just sustainability. Table 2 provides more detail about this framework. The Global ARC works with geographic concepts including watershed and foodshed from the perspective of promoting interdependent bioregionalism.



A Sustainability Framework: Six Interconnected Challenges

ENVIRONMENT AND ECOSYSTEMS: *Creating healthy places*

Natural resources, environmental flows and ecosystem services

Hydrosphere (Water), Lithosphere (Land), Atmosphere (Air), Biosphere (Life)

- Minimize the use/waste of non-renewable resources (fossil fuels, minerals, biodiversity)
- Create and implement sustainable uses of renewable resources (aquifers, freshwater, wetlands, soils, biomass)
- Keep within absorptive capacity of local, regional, global sinks (air, land & water)

SOCIETY AND CULTURE: *Realizing our potential for human flourishing*

Social and cultural resources

Civil Society, People, Families, Community groups, Cultural diversity, Cultural heritage

- Enable the flourishing of civil life in association with others, and joyful living conditions
- Ensure environmental and social justice for all
- Fulfill the needs of the present generation without undermining the ability of future generations to meet their own needs

ECONOMY AND GREEN JOBS: *Living equitably within our means*

Economic resources, Markets, Livelihoods

Cash, Monetary instruments; Workforce, Systems of innovation, Principles for Responsible Investing (PRI)

- Establish full and productive employment (including livable wages/benefits) based on sustainable means of energy use and transportation
- Make affordable health care, community services and a social safety net available to all
- Instill efficiency in markets and systems of production, distribution, exchange and consumption

INSTITUTIONS AND NETWORKS: *Organizing ourselves to enhance learning, improvement and adaptability*

Formal and informal organizations; Established patterns of value, beliefs, and expectations

Organizational design, Hybrid organizations (public-private), Transboundary organizations (local-regional-global)

- Create institutional arrangements that enable social learning and continual improvement in collective efforts for the common good.
- Establish new Means of Administration (federated, integrative, holistic)

POLITICS AND GOVERNANCE: *Getting along together with intelligence, justice and peace Political Community*

Public administration, State-Society relations, Rules governing the commons, Regulatory frameworks

- Establish good governance (i.e., accountable, transparent, participatory, respectful of human rights and cultural diversity)
- Bring about a culture of regulatory innovation that effectively integrates science, society and democracy

KNOWLEDGE AND TECHNOLOGY: *Creating understanding and tools for improving quality of life and place*

Intellectual and technical capital, Wisdom, Know-how, Universities

Systems of knowledge/technology production, sharing, and use; Knowledge commons, Appropriate technology

- Create web infrastructure, planning and decision-support tools (on-line interactive maps, visualization, grids, GIS, models, scenarios, informatics) that can empower social learning and institutional transformation
- Enrich knowledge production, integration and sharing through creative combinations of story, art, multimedia, and social networking technologies
- Stimulate mutually reinforcing interconnections among those doing grassroots-based action research for healthy communities
- Invest in appropriate technology (socio-technical systems) that can foster sustainable development

Table 1: Challenges, Solutions and Opportunities: The On-line Forms

Form	Field	Field Content
Challenge	Title	Title must be 100 characters or less
	Area(s) of Concentration	Select one or more of the six areas of concentration that make up the Global ARCs sustainability framework
	Introduction	150 words or less: Identify your organization or initiative and how it relates to the challenge
	Overview	500 words or less: Outline the significance of the challenge: Who Cares? Why? You can add links in this text box or you can use the add links feature below.
	Goal(s)	40 words or less, per goal: Provide a list of goals (i.e., aims and/or hoped for accomplishments). Relate these goals to other goal sets if possible--such as the UN's Millennium Development Goals. To add more than one goal click "Add Row" below the text field.
	Action(s)	40 words or less, per action: Provide a list of actions (i.e., initiatives in pursuit of the goal or set of goals). To add more than one Action click "Add Row" below the text field.
	Call for Research	500 words or less: Suggest an agenda for further research (i.e., outline what more we need to know to address this challenge). Methods, data sources, and institutional context are also worth noting here, if possible.
	Links & Supporting Materials	Add web site links and upload material free of copyright restrictions.
	Location	Provide a precise or general location as appropriate
Solution	Title	Title of the Solution in 100 characters or less
	Introduction	150 words or less: Identify who is leading the solution; and the partners involved, if any.
	Description	500 words or less: Describe the solution including its intended audience/targets.
	Progress & Evaluation	500 words or less: Discuss progress and/or any evidence of outcomes/impacts. Describe your evaluation plan if you have one.
	Needs	500 words or less: List the information or resources you need to improve and possibly scale up your solution.
	Links & Supporting Materials	Add web site links and upload material free of copyright restrictions.
	Location	Provide a precise or general location as appropriate
Opportunity	Title	Title of the Opportunity in 100 characters or less
	Opportunity	300 words or less: Describe the opportunity and its requirements (e.g., eligibility, timeframe, expectations).
	Location	Provide a precise or general location as appropriate
	Contact Information	Provide email address or some other way to enable interested parties to get more information.

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