

Beyond the Linear Logic of Project Aid

Alternative Understandings of Participation and Community Vitality

Amanda Kiessel, PhD, Sewalanka Foundation, Sri Lanka
amanda@sewalanka.org

Theme: Social Transformation

Research domain: Community Vitality

ABSTRACT

Since the mid-1980s, international development agencies have been responding to critiques of the ‘development industry’ by redirecting their assistance to (1) participatory community development initiatives and (2) targeted project-based aid. These two strategies are rooted in different worldviews and based on contradictory understandings of the nature of social transformation. This paper explores how recent research on complex adaptive systems, ancient Eastern philosophies, and the experiences of participatory development practitioners challenge the linear logic of conventional development interventions. It concludes with the implications of a non-linear world view for participation, community development, and alternative development frameworks like Gross National Happiness.

INTRODUCTION

The international development industry has changed significantly over the years. In response to critics’ claims that the post-World War II development ‘project’ has been a failure and a waste of resources, international aid agencies have sought new strategies to direct and target development assistance. Since the mid-1980s, there have been two notable changes. First, international donors have placed more emphasis on ‘participatory development.’ Bilateral and multilateral agencies and international non-governmental organizations (NGOs) alike have provided funding to form and strengthen community-based organizations (CBOs), conduct village-level participatory rural appraisals (PRAs), build village revolving loan funds, and support ‘community initiatives’ in countries throughout Asia, Africa, and Latin America. Participatory approaches and a village-level focus are expected to reduce the risk of inappropriate

interventions and, at the same time, contribute to democratic governance and a viable market economy [1].

The second change is that most donors have shifted from flexible, general assistance to more targeted aid and project-based funding [2]. Projects give the donor agencies more control over an intervention, making it easier to demonstrate ‘outputs,’ assess efficiency, and restrict financial support to activities that are consistent with the donor’s worldview. Today, most donors require project plans to be expressed in a Logical Framework matrix that includes the planned goal, purpose, outputs, and activities listed vertically and the intervention logic, objectively verifiable indicators, sources of verification, and project assumptions given horizontally. The planned inputs and expected outputs must be measurable, for example: “‘The number of people below the poverty line will be reduced by 25 percent’ or ‘Incomes will be raised by 30 percent’” [3]. They should also be clearly linked with the activity timeline and budget of the project. An implementing agency is evaluated by its ability to ‘manage the project cycle,’ complete the activities and deliver the outputs according to the pre-determined timeline.

Both participatory community development and targeted project funding are intended to increase the accountability and effectiveness of development interventions. The two strategies may have emerged from similar critiques of the international development industry, but that’s where the similarity ends. Field experience suggests that participatory development and donor-funded projects are based on contradictory understandings of the nature of social transformation. They are rooted in different world views [4]. This paper explores the growing challenges to conventional development interventions and the implications of this emerging paradigm for community development.

THE LINEAR LOGIC OF PROJECT AID

According to philosopher of science Thomas Kuhn, scientific disciplines trudge through long periods of relative calm and stability, punctuated by intense revolutions or ‘paradigm shifts.’ The dominant paradigm of a given period defines the boundaries for what are considered to be legitimate problems, theories, and methods in that field. New paradigms emerge when scholars encounter problems that can not be handled within the prevailing paradigm.

Conventional development interventions are rooted in a linear paradigm that emerged during the Scientific Revolution when leading 17th century thinkers like Descartes and Newton made major

advances in our understanding of linear systems and described fundamental laws of mathematics and classical physics. In linear systems, the same association between specific causes and effects applies at all times and in all places. This means that linear processes are predictable. They can be described by universal laws. Events proceed along an orderly path with a clear beginning and end. Once a system is defined, an external actor can provide specified inputs to produce the desired results.

The methodologies and logic used by these 17th century scientists were highly effective for the problems they were trying to solve, and it wasn't long before they began to spill into other disciplines. Even human society was seen as a linear system, moving along a fixed path towards a pre-determined endpoint. This paradigm has been attractive because it provides a sense of security in an uncertain world [5]. It suggests that the future is predictable and controllable, and it enables us to imagine a society that is rationally ordered and manageable [6]. If we uncover the universal laws of development and have the right experts at the controls, we will progress quickly and certainly towards the desired end state, a 'developed society.'

Conventional development projects are based on two linear paradigm assumptions:

1. Those who are 'developed' have the ability (and obligation) to intervene on behalf of those who are less developed and objectively measure their progress along a fixed path
2. It is possible to direct social change and achieve predictable results through planned development interventions.

Development is reduced to a formula, a project recipe: if specialists provide X inputs and conduct Y activities in a community, they will get Z results. This is the logic behind the Logical Framework. The implementing agency is expected to predict in advance the types and amounts of inputs needed, when each activity will be done, and what the measurable output or impact will be. The implementer is then evaluated on their ability to make the world match their prediction. A successful project will use each budget line as predicted, conduct each activity according to the plan, and produce the expected outputs by the target deadline.

Since the projects are intended to address pressing concerns, like poverty, hunger and environmental degradation, and resources are scarce, a premium is placed on cost effectiveness: reaching the maximum number of people for the least amount of money in the shortest possible time frame. It is cheaper and simpler to assume that these project formulae are universally applicable, and that the same linear relationship between inputs and outputs can be applied to different individuals, different social groups, different villages, different regions, or different

countries. All of the areas covered by the project are expected to travel on the same path to the same endpoint.

CHALLENGES TO THE LINEAR PARADIGM

The challenges to this linear understanding of social transformation come from many directions including recent scientific advances, ancient Eastern philosophies, and the experiences of participatory development practitioners.

Complexity Science

Over the past century, scientists have begun studying a number of systems that cannot be explained within the linear paradigm. Einstein, Bohr, Schrödinger, and Heisenberg demonstrated the existence of non-linear phenomena, processes which are inherently probabilistic, uncertain, and unpredictable. They showed that there are systems in which a given cause can lead to more than one outcome, and if the process is repeated the results may be, and often are, different. These non-linear systems do not follow a pre-determined path and cannot be described by universal laws. They also showed that measurements of space and time are relative. Frame of reference matters and an objective description of nature is not possible. In a process reminiscent of the Scientific Revolution in the 1600s, the recognition of nonlinear phenomena and relativity has slowly extended from mathematics and physics to other areas of human interest and opened new questions and areas of explorations.

Researchers are beginning to understand that certain systems, like brains, ant colonies, human organizations, national economies, and ecosystems share common properties that cannot be studied through reductionist methods or within a linear framework. They function as *complex adaptive systems*. A complex system refers to a dynamic network of many, constantly interacting parts. A system is described as *adaptive* when these parts, called agents, have the ability to process information and respond to feedback. In the brain, the agents are neurons; in a human society, the agents could be individuals, households, organizations, companies, or nations, or a combination of all of these. System level patterns emerge from the micro-level actions and interactions of numerous individual agents [7] [8] [9] [10]. Change comes from within the system. There is no external planner. Attempts to precisely control the path of the system from the top can lead to unanticipated, or even undesirable, outcomes.

Eastern Philosophies

The concepts that are emerging from complex adaptive systems research are not new. There are strong parallels with the ancient lessons of Eastern philosophies like Buddhism and Taoism. In these traditions, the world has always been viewed as an unpredictable, perpetually changing system. There is no linear, uniform path towards a fixed endpoint. The Buddha taught that the world is incessantly in motion (*samsara*) and everything around us is impermanent (*anicca*) and transitory [11]. Lao Tzu taught that “It is natural for things to change” [12]. The Tao is a flowing, ever-changing reality and “Those who follow the natural order flow in the current of the Tao” [13, p. 129].

All things are seen as interdependent and inseparable parts of the cosmic whole, of the same ultimate reality. This means that there is no separate, objective observer or planner and the source of motion and change comes from within the system. The highest aim is to see the world as it is, to become aware of this flow, of the unity and mutual interrelation of all things, and to transcend the notion of an isolated individual self. This ancient concept is captured by one of the most well-known researchers on non-linear systems, Albert Einstein:

“A human being is part of the whole, called by us 'Universe'; a part limited in time and space. He experiences himself, his thoughts and feelings as something separated from the rest--a kind of optical delusion of his consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and affection for a few persons nearest us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole nature in its beauty” [14].

Development Practitioners

Participatory development practitioners often share a similar understanding of the nature of human society and social transformation that contradicts the linear assumptions of conventional development projects. They say that community dynamics are complex. There are no universal laws and it is not possible to exactly predict or control the change process. A community worker from Sewalanka Foundation, a Sri Lankan development organization, offered this explanation.

“In chemistry, when Carbon and Oxygen come together, you get Carbon Dioxide. It's crystal clear. It's always the same. But in social science, in social mobilization, when people come together, it's different every time. If we take one

community, there are many different characters and things are changing every week” [15].

This worldview is not restricted to the so-called “developing countries.” Saul Alinsky’s work in the Chicago slums gave him the following understanding of social transformation:

“[An] organizer is loose, resilient, fluid, and on the move in a society which is itself in a state of constant change...The basic requirement for the understanding of the politics of change is to recognize the world as it is” [16, p.11].

Community workers can provide support and stimulate discussion on ‘the world as it is,’ but they are not the source of change. Motion must come from within the system, within the community. Social transformation comes about through the actions and interactions of the people in the community, the ‘local agents.’ According to a Sewalanka field coordinator:

“Social mobilization is about self-development. We help them with whatever they need, but they have to find their own path, not us. At the end of the day, the people have to say ‘We have done that,’ and not ‘This social mobilizer has done it’ or ‘Sewalanka has done it.’ They should say, ‘We have done the work.’”

This understanding of change is reminiscent of the *Tao Te Ching*: “When the best leaders achieve their purpose, the people claim the achievement as their own”¹⁷

Practitioners argue that uniform project formulae are inappropriate because there is no single path. The process and the direction of change may be different even in neighboring communities.

“We adjust according to the place and the people. That’s up to the social mobilizer. Doing social mobilization is not easy. Nobody can exactly figure it out...We can’t apply the same system in every village” [18].

Rather than making a rigid plan and then sticking to it, experienced community workers promote a process of action and learning. This approach is called by different names: participatory action research [19], the learning process approach [20] [21], and process-oriented participatory development [22] [23] [24]. Myles Horton put it simply. He said his work in rural Appalachia finally taught him that “The way to do something was to start doing it and learn from it” [25]. The idea is also captured in the title of a book that he did with Paulo Freire: *We Make the Road by Walking* [26]

IMPLICATIONS FOR DEVELOPMENT INTERVENTIONS

If society is seen as a dynamic, non-linear system, where change emerges from local-level interactions and planned interventions produce unpredictable outcomes, what does this mean for development and other attempts to direct social change? It does not mean that we are forced resign ourselves to drifting along through history and accepting the undesirable circumstances that emerge through the results of our actions like massive inequality, species loss, hunger, pollution, and war. It means that we need to reevaluate how we think about change in a changing world. According to one of the researchers investigating complex adaptive systems:

“It’s like a kaleidoscope: the world is a matter of patterns that change, that partly repeat, but never quite repeat, that are always new and different... We are a part of this thing that is never changing and always changing. If you think that you’re a steamboat and can go up the river, you’re kidding yourself. Actually, you’re just the captain of a paper boat drifting down the river. If you try to resist, you’re not going to get anywhere. On the other hand, if you quietly observe the flow, realizing that you’re part of it, realizing that the flow is ever-changing and leading to new complexities, then every so often you can stick an oar into the river and punt yourself from one eddy to another... It means that you try to see reality for what it is, and realize that the game you are in keeps changing, so it’s up to you to figure out the current rules of the game as it’s being played... you observe. And where you can make an effective move, you make a move” [27, p. 330]

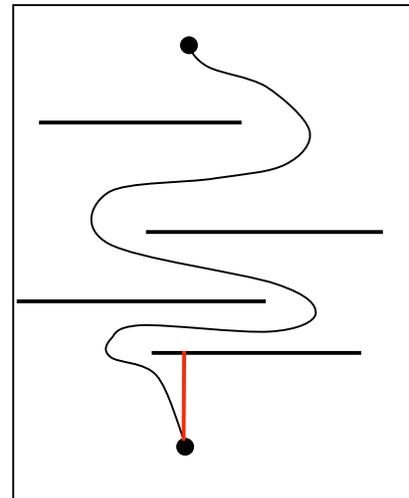


Figure 1. Development as an unpredictable path.

Strategic Action and Flexibility

A complexity paradigm is a call for a more strategic approach to directed social change, a process of constantly observing and analyzing the system, identifying strategic spaces for action, and channeling our energy and resources more effectively. According to Harsha Navaratne, the Chairman of Sewalanka Foundation, attempting to follow a linear, pre-determined plan can restrict our ability to act effectively. Development is a balancing act, an art, and the exact path can't be predicted. Once, to explain this point, he took out a blank sheet of paper and made a

mark at the top (Figure 1). ‘This is where we want to go, but now we are here,’ he said, pointing to the bottom of the page. He then drew lines across the middle of the page.

“We cannot go directly. There are many obstacles in the way. There are many constraints, and the situation is constantly changing. If we try to go in a straight line according to our ideology and theories, we will get stuck.”

He drew a winding line from the bottom of the page to the top that bypassed all the ‘obstacles.’

“You have to find a creative way to reach your goal. You have to keep your eyes focused on where you are trying to go, but you have to understand that to reach that place you may have to try many different paths. You have to compromise. You have to be flexible and creative” [28].

Pre-determined project plans confine genuine participation and limit the ability of the ‘participants’ to adapt to local conditions, learn from experience, and adjust to changing circumstances. Many donor-funded projects have supported the ‘institutional capacity building of community based organizations,’ but as long as this occurs within a rigid project framework, the CBOs rarely continue meeting and functioning beyond the end of the project. Social transformation requires time and flexibility. Community groups need space to test different strategies, learn from their mistakes, and try new ideas.

Community Vitality through Individual Awakening

Complex adaptive systems research suggests three main areas of interventions to promote directed change in a constantly change world:

1. Activity and reactivity of individual agents,
2. Interactions between agents, and
3. Policies and institutions that contribute to an enabling macro environment.

Participatory development practitioners focus on the first two of these three. The reason is that, although government policies and programs are important, they do not affect all people equally. In most societies, inequality is high, and some people have less influence and access than others. Participatory development practitioners focus on the first two types of interventions in an attempt to change network structure and dynamics, to alter ‘the fitness landscape.’ By increasing the influence and links of poorly connected agents, they hope to increase their capacity to shape policies and institutions, access information, services, resources, and markets, and direct the process of social change.

Community workers are sometimes called catalyzers, mobilizers, change agents, or motivators. Their main role is to change peoples' attitudes and encourage them to be more 'reactive,' more likely to act and interact with their network neighbors. In the Sri Lankan context, the primary obstacle is the 'dependency mentality' that has been developed through decades of paternalistic policies and aid hand outs. "Usually villagers complain about government organizations, and they blame the system for not solving their problems" [29]. The social mobilizers explain the constraints and limitations of external assistance, and they encourage them to identify what they can do on their own. They stimulate discussion on the nature of the overall system, our interdependence with others, potential sources of change, and the potential for personal and collective action. According to one community worker, "Basically every individual has a selfish part; they have a concept like 'mine.' We have to change that to 'we,' and try to help them work as teams" [30]. This individual awakening or personal transformation is seen at the basis of social transformation.

Community Vitality through Interaction

In addition to looking at individual attitudes and behaviors, community workers focus on changing interactions between individuals. Most communities have what is called a 'small world network structure' [31]. People have many 'local' connections with similar individuals and a few weaker connections with 'distant' individuals. (Figure 2). Forming community organizations can be seen as a way of increasing the density of local network connections. The rationale is that if these densely connected network neighbors are able to make decisions collectively and work together as a single agent, they will have more influence in their interactions with others than they did as single individuals. For example, government officials and private companies tend to be more responsive to a demand from an active, well-organized group than a demand from a single person. Participatory development practitioners help increase

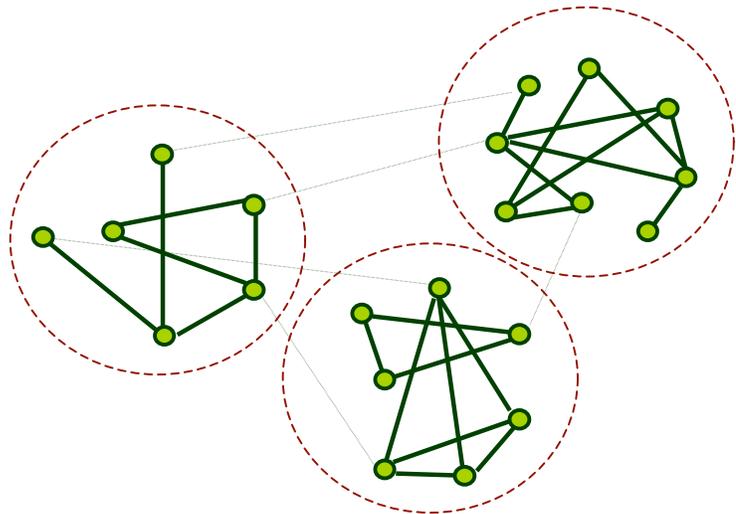


Figure 2. A small world network. Communities tend to have dense local connectivity with fewer inter-area connections.

community vitality by strengthening inter-community links, and (based on the interests and context of the community) forming new links with external agents.

A project has a clear beginning and end, but a development process is on-going. This does not mean that an indefinite intervention is needed. The small groups and community organizations formed through the mobilization process increase villagers' capacity to innovate and adapt to change because they provide a forum for dialogue: for observing and analyzing the situation, identifying opportunities and potential constraints, and learning from mistakes. A community organization is considered sustainable when the villagers are "constantly evaluating and evolving and able to address whatever issues come up"[32]. "What you're trying to do is maximize robustness, or survivability, in the face of an ill-defined future" [33]. Participatory development practitioners have updated Chinese philosopher Kuan-tzu's proverb, "If you give a man a fish..." to reflect this understanding of community organizing and resilience.

"If you give me a fish, you have fed me for a day. If you teach me to fish, then you have fed me until the river is contaminated and the shoreline is seized for development. But if you teach me to organize, then whatever the challenge, I can join together with my peers and we will fashion our own solution."

Applying Non-Linear Lessons to the Development Industry

To summarize, a non-linear understanding of social change draws into question the assumptions underlying conventional development projects and offers the following lessons:

- Social change can not be precisely predicted or controlled. Development is a process of observing, identifying opportunities and constraints, learning from experience, and adapting to changing circumstances.
- Each society has its own unique historical path and dynamics. There is no single structure, technology, or universal development formula that can be directly imported from one system to another.
- Change emerges from within the system, from the actions and interactions of individuals. There is no external, objective expert.
- Change takes time and does not proceed at a uniform, predictable pace. Groups need space to test different strategies, learn from their mistakes, and try new ideas. Social transformation cannot be forced into a short, rigid timeframe.
- Personal transformation is at the basis of social transformation. Change agents influence attitudes and behaviors through example and by providing opportunities for dialogue and experience.

- Change is catalyzed when ‘mobilized’ agents form strong enough ties with their ‘network neighbors’ to act together on common issues and collectively establish links with powerful individuals and groups outside their immediate circle.

Applying these lessons to the international development industry would require a dramatic shift in how aid agencies channel resources, evaluate accountability and effectiveness, and measure success. Funding for ‘participatory development’ would need to be flexible, process-oriented, and available in smaller amounts over a longer time frame. It seems unlikely that these changes will come without pressure from the academic community. Most ‘evaluations’ of development projects are self-assessments conducted at the end of the project period with a focus on the expected outputs and indicators from the initial project plan. Both the implementing and the funding agency have a vested interest in showing positive results; the project’s underlying assumptions are not questioned. In contrast, ethnographies of specific development projects, like Ferguson’s *The Anti-Politics Machine* and Uphoff’s *Learning from Gal Oya*, tend to highlight the unanticipated consequences of the intervention, the role of individual actors, and the influence of the local socio-political context and constantly changing conditions [34][35]. More of these field-based, long-term studies of specific interventions are needed to provide insight into the social change process and inform development policy makers on which types of intervention strategies are most suitable.

GROSS NATIONAL HAPPINESS AND A NON-LINEAR PARADIGM

The view of human society and social transformation shared by modern complex adaptive systems researchers, ancient Eastern philosophers, and experienced participatory development practitioners is consistent with the alternative development framework of Gross National Happiness (GNH). First, GNH provides a flexible reminder of where we want to go: a society that maximizes well-being and quality of life, equitable use of resources, cultural diversity, environmental protection, and good governance. It is a value-based ‘mark at the top of the page’ that we can focus on as we deal with the daily complexities of the change process. Second, it does not assume that all human societies will move along a uniform path towards a fixed endpoint, but provides the space and flexibility for people to adjust to the local context, adapt to change, and learn from experience.

Finally, a GNH framework highlights the role of individual agents in system-level change. Happiness cannot be experienced at a national level. This means that GNH has to be more than a

compilation of existing national-level statistics and indices that hide individual and village-level disparities. Participatory action research will be needed to understand happiness in context and ‘from the bottom-up’ and analyze how people’s definition of happiness varies between places and over time. According to our ancient teachers and our modern scientists, happiness emerges from the type of personal transformation that leads to social transformation. It comes from recognizing the incessant motion, unity, and interdependence of all things and from “widening our circle of compassion to embrace all living creatures and the whole nature in its beauty.” Einstein reminds us that even if we are unable to achieve this completely, “striving for such achievement is, in itself, a part of the liberation and a foundation for inner security” [36].

REFERENCES

-
- [1] Hulme, D. and M. Edwards. (1997), “NGOs, States, and Donors: An Overview”, in Hulme, D. and M. Edwards (Ed.), *NGOs, States and Donors: Too Close for Comfort?*, St. Martin’s, New York, NY, pp. 3-22.
 - [2] Kuruppu, S. (1994), *Recent Trends in Foreign Aid*, Institute for Policy Studies, Colombo.
 - [3] Examples given at a ‘Partner Conference’ held by one of Sewalanka’s donors, Field notes, September 18, 2006
 - [4] Kiessel, A. (2007), *Social Change and Complex Systems: The Art of Participatory Development in Rural Sri Lanka*, Doctoral thesis, University of California, Santa Cruz.

-
- [5] Dewey, J. (1930), *The Quest for Certainty: A Study of the Relation of Knowledge and Action*, George Allen and Unwin, London.
- [6] Toulmin, S. (1992), *Cosmopolis: The Hidden Agenda of Modernity*, University of Chicago Press, Chicago, IL.
- [7] Waldrop, M. M. (1992), *Complexity: The Emerging Science at the Edge of Order and Chaos*, Simon and Schuster, New York, NY.
- [8] Holland, J. (1996), *Hidden Order: How Adaptation Builds Complexity*, Perseus, Cambridge, MA.
- [9] Watts, D. (1999), *Small Worlds: The Dynamics of Networks between Order and Randomness*, Princeton University Press, Princeton, NJ.
- [10] Beinhocker, E.D. (2007), *The Origin of Wealth: Evolution, Complexity, and the Radical Remaking of Economics*, Random House, London.
- [11] Dhammapada, 113
- [12] Lao Tzu (1970), *Tao Te Ching*, trans. Ch'u Ta-Kao, Allen and Unwin, London, ch. 29.
- [13] Huai Nan Tzu quoted in Capra, F. (1982), *The Tao of Physics*, Flamingo/Harper Collins, London.
- [14] Albert Einstein (1954), *Ideas and Opinions*, Random House, New York, NY.
- [15] Focus group interview, June 3, 2006.
- [16] Alinsky, S. (1972), *Rules for Radicals: A Pragmatic Primer for Realistic Radicals*, Vintage Books/Random House, New York, NY.
- [17] Lao Tzu (1970), *Tao Te Ching*, trans. Ch'u Ta-Kao, Allen and Unwin, London, ch. 17
- [18] Focus group interview, June 14, 2006
- [19] Fals-Borda, O. (1979), "Investigating Reality in Order to Transform It: The Colombian Experience." *Dialectical Anthropology*, Vol. 4 No. 1, pp. 33-55.
- [20] Sweet, C. and P. Weisel. (1979), "Process Versus Blueprint Models for Designing Rural Development Projects" in G. Honadle and R. Klaus (Eds.), *International Development Administration: Implementation Analysis for Development Projects*, Praeger, New York, NY, pp. 127-145.
- [21] Korten, D. (1980). "Community Organization and Rural Development: A Learning Process Approach," *Public Administration Review*, Vol. 40 No. 5, pp. 480-511.
- [22] Ul-Haque, W., N. Mehta, et al. (1977), "Towards a Theory of Rural Development," *Development Dialogue*, Vol. 2, pp. 11-19.
- [23] Bunch, R. (1982), *Two Ears of Corn: A Guide to People-Centered Agricultural Development*, World Neighbors, Oklahoma City.

-
- [24] Uphoff, N. (1992), *Learning from Gal Oya: Possibilities for Participatory Development and Post-Newtonian Social Science*, Cornell University Press, Ithaca, NY.
- [25] Horton, M. (1990), *The Long Haul: An Autobiography*, Teachers College Press, New York, NY.
- [26] Horton, M. and P. Freire. (1990), *We Make the Road by Walking: Conversations on Education and Social Change*, Temple University Press, Philadelphia, PA.
- [27] Waldrop, M. M. (1992), *Complexity: The Emerging Science at the Edge of Order and Chaos*, Simon and Schuster, New York, NY.
- [28] Personal communication, December 12, 2004
- [29] Interview, June 3, 2006
- [30] Focus group interview, June 22, 2006
- [31] Watts, D. J. (1999), "Networks, Dynamics, and the Small-World Phenomenon", *American Journal of Sociology*, Vol. 105, No. 2, pp, 493-527.
- [32] Interview, March 27, 2006
- [33] Waldrop, M. M. (1992), *Complexity: The Emerging Science at the Edge of Order and Chaos*, Simon and Schuster, New York, NY.
- [34] Ferguson, J. (1990), *The Anti-Politics Machine: 'Development,' Depoliticization, and Bureaucratic Power in Lesotho*, University of Minnesota Press, Minneapolis, MN.
- [35] Uphoff, N. (1992), *Learning from Gal Oya: Possibilities for Participatory Development and Post-Newtonian Social Science*, Cornell University Press, Ithaca, NY.
- [36] Albert Einstein (1954), *Ideas and Opinions*, Random House, New York, NY.