It is a privilege to be alive at a time when so much that had previously been accepted without question is being challenged, and there is such exhilaration and liberation exploring new ideas, approaches and methods, values and behaviors. As a contribution to such transformations, this special issue of Agricultural Systems should prove to be a defining event, a marker on a watershed in agricultural research and a signpost to the future of agricultural research and development (R&D).

Those many development professionals who read Agricultural Systems know that they live in a world of change so rapid and profound that to stay afloat challenges us to learn and unlearn at an unprecedented rate. The mission of agricultural R&D organizations, including the centers of the Consultative Group on International Agricultural Research (CGIAR) research network, has moved its focus from increasing production to attacking poverty. New networks, partnerships, negotiations and relationships have proliferated as the search for solutions to this more inclusive and complex challenge intensifies. At the same time, poor farmers find their realities and livelihoods increasingly buffeted and stressed by change, volatility and uncertainty in a multiplicity of social, economic, political and environmental conditions. Their aspirations rise and their adaptations evolve, faster and more radically than ever before. There are massive challenges-professional, institutional and personal-confronting all those engaged in the practice, management and evaluation of agricultural R&D. As the development community strives to address these new and more intense demands, its players are challenged to accept and internalize changes in their concepts, methods, mindsets, values, behaviors and relationships.

The words and methods that scientists and other professionals in R&D currently employ both hinder and help the change process. Certain frequently-used words tend to be loaded with a baggage of associations and meanings which impede change. Evaluation for example implies judgment by and accountability to a third party. Impact evokes the imagery of anticipated or ex post outputs of a research pipeline. The two words combined as impact evaluation are associated rather narrowly with a limited range of dominant methods employed by agricultural economists. In contrast, fresh words and phrases can help by signaling new methods and approaches for learning which embrace many disciplines. Examples in this issue of fresh concepts which are rapidly gaining currency, include innovation systems, impact pathways, situational learning, pro-poor rural innovation, and action learning. They are evidence that the paradigm is evolving. The shift is from linear pipeline to learning process. Action learning, with participants as action learners, is an umbrella phrase for the fundamental changes in concepts, methods; mindsets, values, rules and behaviors that are beginning to alter the practice of agricultural research and development.

Institutional Learning and Change (ILAC) is part of an emerging redefinition of good professional practice in agricultural science. It entails and requires continuous learning, unlearning, and learning-about-learning. Elements may include frequent
exposure to field realities, co-learning with poor farmers, and changing priorities and programs through continuous monitoring and evaluation. The professional world these changes open up, understands development as a more complex system than previously believed and one that demands new roles and behaviors, participatory processes, methodological pluralism, multiple stakeholders and interrelated accountabilities. There is, however, a unifying core around which all this complexity, diversity and dynamism can be oriented and organized: the commitment of the international community of international financial institutions, R&D organizations, and individual professionals, to attacking poverty through institutional learning and change as opposed to cosmetic organizational restructuring. Accountability to poor people takes on primary importance, and subsumes and fulfills accountabilities to donors and others.

Institutionally, there are implications for the policy process, for governments, and for research organizations and their management, incentives, procedures and cultures. The term ILAC is gaining currency to express increasing awareness of and transformation in these dimensions. The term institutions is used here not in its popular sense as a synonym for organizations but as referring to the formal and informal rules, regulations, norms and practices that govern and determine the agricultural R&D system as a whole. ILAC presents formidable challenges to national organizations as well as to the Centers of the CGIAR research network and the financial, donor and NGO communities. ILAC implies continuous learning and unlearning in place of one-shot ex post evaluations; learning from what does not work as well as from what does; acknowledging, managing and moderating asymmetrical power relationships; emphasizing broader and more equitable relationships; involving the full range of stakeholders, not least poor farmers; and relating to farmers' complex, diverse and risk-prone realities.

For the individual as well as for organizations and networks, the challenges of ILAC can be formidable. Institutional change requires continuous personal learning and change. Self-critical reflection, and learning from error as well as from success are vital elements. Some find ILAC and its implications threatening. For others it represents liberation. There are profound implications for professional identity, personal fulfillment, and ways of being and of relating to others. ILAC concepts and processes will not, prima facie, appeal to all, and will meet with resistance. T.H. Huxley famously observed that all new truth begins as heresy. ILAC demands heretics with the courage to confront established conventions. It needs pioneers, champions and leaders. Those who adopt such roles find that, at least initially, they are minorities and as such are often marginalized. Their innovations, experiences, arguments and findings are still liable to be ignored or greeted with skepticism. However, their numbers, commitment and confidence are increasing. Some have contributed to this volume. May their words and leadership support, encourage and inspire others.

The stakes are high. There are divergent roads. The choice that has to be made between them cannot be evaded. More of the same in the old pattern looks set to
run ever deeper into diminishing returns. In contrast, institutional learning and change accepted with an open mind and pursued with resolution, imagination and sensitivity, promises growing and lasting gains in the effectiveness and efficiency of agricultural R&D focused on poverty. For the lives and livelihoods of many millions of women, men and children in poor farming and farm laboring families, the potential benefits are beyond measure. There is an immensely important message contained in this issue of *Agricultural Systems*: to be serious about poverty, the national and international agricultural R&D community has to be serious about institutional learning and change.

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