

## SCIENCE COUNCIL OF THE CGIAR

### Stripe Review of Social Science in the CGIAR System

#### Scoping Paper<sup>1</sup>

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#### **A Tradition of High Quality Social Science in the CGIAR System**

The traditional role of social science in the CGIAR System was one that was narrowly defined and focused on working collaboratively with scientists on issues related to technology generation and delivery. The research agenda centered on several sets of key questions: the extent of and constraints to adoption; the impacts of adoption on yields and cropping income; and ex-ante returns to new technologies (henceforth, *adoption, impacts and assessment*). The findings and input of social scientists have influenced and contributed to the direction of the research agenda and overall strategy of individual centers. Those findings and inputs have also influenced the research agenda of the social scientists of NARS's from developing countries.

There is a perception that, while small in numbers, social scientists played an important and significant role in the CGIAR System during its early years. There are many examples of path breaking research that came out of the CGIAR Centers: the work on constraints to adoption at IRRI; the tracking of adoption by CIMMYT; the research on risk at ICRISAT; some of the first *ex ante* research exercises at ICRISAT and CIAT; rapid rural appraisal methods developed by CIP; and the initial policy studies at IFPRI as well as in other Centers, such as IRRI and CIMMYT. Some of that work was made possible and enhanced by collaborations between social scientists within the CGIAR System and those in the Advance Research Institutes—e.g., at Universities such as of Tokyo, Yale, Harvard, Sussex, New England, Chicago, California, Reading, Stanford, Hohenheim, Cornell and many other US Land Grant and European universities. Most of the breakthroughs were accomplished at a time when the analytical toolkits of social scientists (including powerful computers, sophisticated econometrics, etc.) were quite minimal and data series scarce. In fact, one of the main tasks of the early social scientists was to put together novel data sets – and it often was around these information resources that many of the early breakthroughs by the CGIAR social scientists and their collaborators were made.

One hypothesis for the apparent success of the early CGIAR social science program is that, despite the absence of powerful methods and data, research was focused on a relatively small number of themes—adoption, impacts and assessments—and there were opportunities to link social and natural science and pursue new and high quality interdisciplinary research. Admittedly, these were new fields, which made new discoveries relatively easy, but nonetheless social science research made many contributions. Despite limitations in the

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methods and approaches it was possible to succeed in creation of research teams with adequate critical mass. An additional hypothesis to explain the early success was that a) the challenges and research resources available in the CGIAR System were great enough; b) salaries and compensation packages were lucrative enough; and c) the expectations of a successful career path were high enough that some of the best and brightest economists and social scientists were attracted to the System—either in a direct participatory role or in a collaborative way. In other words, high quality human capital and (relatively) good financial support helped raise the productivity of social science as the CGIAR was established and expanded.

### **Expansion of the Social Science Research Agenda**

In recent years, there has been an expansion in the amount and—at least on the surface—types of questions that social scientists in the CGIAR System have been asked to answer. A partial list includes: impacts of agricultural technology beyond yields and incomes (including impacts on poverty, livelihoods, equity, environment, gender, and nutrition); returns to agricultural research investments; farm-level technology planning and assessment, including a range of participatory methodologies; the role of agricultural technology in diversifying rural economies; agricultural research in broader rural development efforts; contributions to natural resource management; agrobiodiversity; the organization of input provision; multi-partner technology development and innovation systems; and an expanding agenda of policy-related research.

There are several possible explanations for this expansion in the range of social science research in the CGIAR. Some of them are related to development of science and technology in many fields including development in social sciences; other explanations are related to changes in the public concerns emphasizing new challenges. The Green Revolution, which helped play a role in transforming many economies, brought about a new set of development challenges; after several decades, there were clearly both winners and losers associated with the new technologies. In addition, the Green Revolution is known to have produced its own set of problems (especially environmental ones) that are receiving attention. A decline in support from governments and donors for national research and extension systems also occasioned a reconsideration of strategies in the CGIAR. More broadly, donors' growing concerns about achieving measurable progress in lowering poverty rates and pressures to see agriculture within a wider context of rural development and livelihoods contributed to a diversification in themes, methods and partners for CGIAR social science. The shifting vision of the CGIAR System—to one targeting poverty alleviation as its major goal—also has undoubtedly contributed to the expansion of the social science research agenda.

While it is beyond the scope of this paper to provide analysis, it is fairly clear that the rise in demands on social scientists and the expansion of the agenda has led to an expansion in the number and variety of social scientists and the share of the resources that they command. Recent EPMRs document the rising demand for Centers to move into social science-oriented programs. Reviews of the Centers often point to the need to strengthen and expand their social science programs.

### **Concerns for the Quality of Today's Social Science Research Effort**

Unfortunately, despite the rapidly growing role of the field, there is a strong perception that social science in the CGIAR System is not as effective as it should be. This is a perception that appears in many areas. Above all, the reviews of the Centers—both those organized externally (EPMRs) and those run by the Centers themselves (CCERs)—demonstrate that there are weaknesses in the current social science programs of many centers; this notwithstanding that the external reviews have also identified high quality and innovative social science work in some Centers. For example, from recent EPMRs it can be concluded that:

- CIAT has no core capacity to do impact analysis;
- CIMMYT social science was only working in half of the areas that CIMMYT recognized as its core tasks; and this was before it shut down what was traditionally known as one of the most successful Economics Programs in the CGIAR System;
- According to ILRI's 2008-10 MTP, a large share of its work is social science in nature and more than 20 research scientists work in this area, yet there is almost no evidence that its social scientists are publishing in journals reviewed and recognized by their peers;
- IWMI greatly expanded its social science capacity, mostly with young and inexperienced social scientists without hiring almost any one that had proven he/she could plan and direct a major social science agenda; the output of the program shows that this probably was a mistake;
- The EPMRs of IITA, ICRISAT, CIP contain many criticisms of the programs of these Centers that have considerable capacity now or in the past in social science research;
- The EPMRs of ICARDA, IPGRI and others have concluded that there are no systematic programs in economics, social research or general social science.
- There have been few publications of IRRI social scientist appearing in refereed journals in the past 5 years. It is also noteworthy that IRRI, which traditionally had one of the most successful social science programs, has been looking to fill senior positions and department head positions for several years and have had to re—hire an economist that began working at IRRI more than 45 years ago to lead the search process.

In addition, the EPMRs also are sometimes highly critical of the issues that social scientists are working on; the methods that they are using; and the way that they interact with scientists in the rest of the System and outside the System. There are even many projects in the Center with the largest social science program, IFPRI, that are focused on development-oriented projects; research that may not produce international public goods. Casual empiricism relating the number of scientists to the number and quality of publications (as seen through websites—which may not be complete) reinforce the findings of the EPMRs.

### **Questions on the Expansion of Social Science**

The rapid expansion in activities coupled with rising concerns about output raises many questions about the efficient execution of the CGIAR System's social science research agenda. First, it is important to establish what is happening in CGIAR social science. Is social science research still expanding in terms of investment and personnel? Is it fulfilling its role in the

System's overall research agenda? What fraction of effort of social scientists has been directed to new types of questions and what fraction still falls within the traditional rubrics of constraints analysis, impact evaluation and identifying potential returns to research? In other words, to what extent is the research agenda changing? Beyond what is happening (that is, in addition to beginning to "get the facts right"), a more fundamental question could be whether the expansion is justified. Is it becoming more or less relevant? It could be that the drift is compromising the essential part of the social science agenda.

Second, there is a question about how the research is being done. What are the methodologies that social scientists are using? Are they taking advantage of new approaches? How are they using different sources of data? Are the collaborations with other social scientists—both inside and outside the System—occurring and are they producing quality research and filling gaps in research capacity? Are they willing and able to collaborate with natural scientists in the System—both to produce state-of-the-art social science research as well as to aid the work of CGIAR System natural scientists? Are they helping natural scientists understand their technologies and proposed research efforts and to what extent are they developing their own research agenda (or both / or neither)?

Third, there is the more difficult question of the quality and efficiency of the research and the appropriateness of the approaches being employed. Is the CGIAR System social science research really weaker than it used to be? If not, then why is there this perception? Is the research recognized as state of the art, innovative and path breaking? Is it accomplishing its research goals and providing a real input to the CGIAR research agenda? Is the social science system performing its role as a partner in informing the direction of research of the System? For the size of the investment, is the CGIAR System getting its "money's worth?" Is there a way to get more out of the expenditure of each research dollar?

Finally, assuming there are problems in investment, conduct or quality in CGIAR social science research, there is the challenge of identifying causes and proposing solutions. There are at least two general sources of problems. On the one hand, it may be a problem rooted in general incentives. Is there less incentive for good social scientists to join or collaborate with the CGIAR System? Is the compensation package high enough to attract top scholars? What is the perception of social scientists about their career paths and ability to do good, meaningful work and grow as social scientists? Is there enough flexibility and resources available that allow top social scientists to pursue innovative and challenging research? Is the organization such that young social scientists find it an attractive and productive entry point for their careers?

A second source of problems may be related to the organization of the system. Recognition of these problems can help the forward-looking, prescriptive part of the proposed stripe study. Are there new ways to organize social science research that will improve quality? Is there an adequate critical mass in each of the Centers? Are there new ways to increase research capacity through training and collaboration? Is social science research adequately conceived and managed within the Centers? Is there adequate coordination and collaboration among Centers in social science research? Does the concentration of social

scientists at IFPRI in Washington, away from the crop and natural resource management Centers inhibit collaborative research between natural and social scientists? Is it more attractive in terms of career and families for social scientists to work at IFPRI than at other Centers with a smaller critical mass?

### **Need for a Stripe Review**

This review of the state of social science in the CGIAR System and the large number of questions it has raised, suggests that it is time for a Social Science Stripe Review (SSSR) in the CGIAR System. The basic reasons can be summed up in five observations:

- With a significant part of the CGIAR's priorities and research portfolio related to social science—and an emphasis on poverty alleviation (and related social welfare problems), it is necessary to assess the organization and conduct of social science research in the System;
- With the new challenges being raised by issues such as world economic growth; climate change; biofuels; and the emergence of new initiatives in Sub-Saharan Africa, it is time to prepare a new generation of social scientists to deal with these issues and to help be an effective partner in determining the direction of research of the System;
- There can be an argument made that a revolution in methodological approaches (e.g., the emergence of randomized social experimentation) and the mainstreaming of multidisciplinary research between researchers in natural and social science fields will increase the expected gain of being associated with a CGIAR center; and
- Changes in the ways to do research and collaborate—due to falling transaction costs associated with electronic communications and improved transportation—may offer opportunities for increasing the effectiveness of social science research and establishing new organizational forms;
- There is sufficient expression of concern about serious problems in the CGIAR System's social science program, from both System-commissioned reviews and informed sympathetic observers, to warrant a thorough assessment of the situation.

### **The audience and the objective of the Review**

The primary audience of the review is the Centers themselves, the Centers Alliance and the Challenge Programs (CP). The donors and other stakeholders would also be interested in the results. The objective of the review is to provide inputs to a plan for improving the contribution of social science to the CGIAR System.

### **Organization of the Review**

Despite the demonstrated need for a high quality review of social sciences in the CGIAR, the organization of the assessment will be a challenge. There are many Centers and Challenge Programs (CPs), with significantly different agendas and mandates. There are many sub-disciplines within social science, and research covers many themes and sub-themes. And, the current state of social sciences in the System is not well documented.

Because of these complexities and the need for good information on the system, a Stripe Review will be organized as a two step process. The first Phase will have two components.

The first component will be a scoping study involving an inventory of the current situation in social sciences regarding numbers and types of social scientists, functions, costs and products. This part of the review will categorize the types of research currently being done and recent trends, and document how it is being organized (e.g., where social scientists are located in the centers). This work will be done using readily available literature and data provided to the team from the Centers and CPs, including previous EPMRs and CCERs. The report produced in the first Phase of the review will also document how the research results are being disseminated (e.g., number and types of publications).

The second component of Phase 1 will draw from the data and information collected and from work done for the CGIAR system priorities (SPs) and other resources to develop a conceptual framework of what the CGIAR should expect of its social scientists. In other words, the review will need to paint a normative picture of the desirable CGIAR social science research agenda.

The findings will be used to draw out the issues and better define the scope and *modus operandi* of the main second Phase of the study. There is need to establish close collaboration with the Centers and CPs, seek their feed-back and keep them informed about progress, to ensure there is a receptive audience for the review. Centers and CPs will be asked to nominate a focal person for the review. There will be data and information needs but the SC is sensitive to the issue of burden and will build on existing information as far as possible.

Obviously there are other stakeholders—SC, donors and ARIs. However, since the main objective of the study is to provide input to a plan for improving social science in the CGIAR System, having the study based on the input of Center social scientists is important. It also must be done without placing an excessive reporting burden on them.

The second Phase of the study will examine the methods and resources applied to social science research and the quality and efficiency of the outcomes. It will do this through an in-depth assessment of selected areas of current social science research in the CGIAR. The second Phase will also examine the organization of, and the incentives for, social science research in the System. It is expected that the review team—on their own and through discussions that their report will stimulate—will also be forward looking. Ultimately, the main purpose of the social science stripe review is to suggest new ways of thinking about how to improve social science research in the CGIAR System.

***Narrow the Focus and Consider Differences Among Centers.*** Because of the size and complexity of social science research, there is value in having a clear focus for the study. A way to make it tractable and of value is to have the second Phase of the study focused on a subset of the themes that are on the research agenda of most of the centers. For example, while the exact set of sub-themes can be based on what is found in the first Phase (with emphasis to be placed on the sub-themes that are attracting the most resources), it is worth exploring if the review can target research that is consistent with the core social science

agenda of the CGIAR System and to which many of the various disciplines contribute.<sup>2</sup> An example could be: Adoption, Impacts, and Assessments (of Benefits and Costs of Research, *Ex ante*). But there are many other functions.

The definition of adoption, impacts and assessments, can be modified to make sure the review addresses social science studies that occur in all types of Centers. In other words, adoption can refer to studies looking at adoption of natural resource management strategies or seed technologies and the influence of policy-oriented research. Impacts can refer to studies looking at the impact of policies or technologies on poverty (or other social welfare indicators). When adoption, impact and assessment are defined in a broader way, they might be able to cover research in all of the disciplines and in all of the studies.

Because these themes may appear in different ways and in different contexts in the Centers, the second Phase of the assessment will need to be based on a careful delineation of the Centers and their products in the first Phase. A provisional division of Center types might include the commodity Centers, the mixed commodity/natural resource management Centers and policy-oriented Centers. For each of these, although the exact nature of adoption, impact and assessment research differs, it could be that a definition of these research themes in each sub-field could be applied in ways that a relatively common set of social science methodologies, outputs and IPGs could be identified. Some of the Centers' social science research may yield final products that can be taken up by others (such as inputs for policy, capacity building, or principles for farmer or enterprise organization), but much social science research will be used to guide investments, monitor progress, or demonstrate impacts for natural science research whose products may be germplasm, crop or natural resource management techniques, or research methods and processes. Once the focus themes for the second phase are identified, their relevance to each Center would have to be examined before identifying particular instances of center research that would be reviewed for effectiveness and quality.

In addition, the second phase of the study is planned to examine the organization of social science research in the System and the incentives for attracting the participation of first-rate scientists across all age groups. It is likely that this assessment of organization and incentives could not be completed solely by reference to the specific research projects or programs chosen for the review of effectiveness and quality and that a somewhat broader perspective would be necessary. This would likely involve interviews not only with a range of personnel within the CGIAR but social scientists in ARIs and elsewhere as well. Additionally, in the era of concerns about both programmatic alignment and structural alignment perhaps the review could look at social science research, not only at the individual Center level but also programmatically in the three Center clusters and structurally at the System level, as increasingly there are joint appointments and collaborations occurring among Centers (and among Centers and ARIs and NARS) which aim to both exploit synergies and achieve economies.

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<sup>2</sup> The focus on functions that will be subject to the in-depth review during Phase 2, means involving any social science disciplines that are involved in the functions and, to the extent possible within the scope of the study, relevant linkages to other disciplines.

Although the primary audience of the review is the Centers themselves and the Alliance and CPs, donors should also be interested in the results. The review should consider how the donors perceive the work of social scientists and how they contribute to setting the agenda. It is important to determine how donors can play a role in assisting any solutions that are identified. Because of the importance of this participation, donors' views maybe canvassed in preparation of or during the second phase for eliciting issues and perceptions.

**Organizing the Stripe Review.** In order to implement the Stripe Review, there are a number of steps that need to be taken. A Stripe Review Chair will be appointed to oversee and complete Phase 1 and will be assisted by a consultant whose task is to organize the information and provide initial analyses of the state of social science research and its organization in the Centers. The Chair and consultant will work in close consultation with the SC Secretariat and a small task force of the SC. The SC Secretariat will help assemble the information needed for the first phase. On the basis of the Phase 1 analysis the SC task force and the Review Chair will identify the scope of the second phase and refine the approach and criteria. Phase 1 is planned to be completed during the first half of 2008. It is expected that Phase 2 will be completed at the end of 2008.

*Phase 1: Scoping CGIAR Social Science Research*

**Task 1:** Assess the current status of social science research in the CGIAR in terms of

- Personnel (including information on qualifications, joint appointments and disciplinary expertise)
- collaborations (e.g. list of social science partners and 3-5 examples of good collaboration as exemplified by good multi-authored reports)
- funding (some cost data that are easy to collect and reflect the situation)
- publication record (quantitative and qualitative analysis, including citation analysis) over 5 years)
- trends as deemed important.

**Task 2:** Compile a catalogue or inventory the types of work currently being done by System social scientists and provide a set of categories that can be used to describe the work. Also, describe how social science is organized in each Center, including producing an assessment of how much research is being done largely to produce a final "social science product" and how much is being done collaboratively with natural scientists (which might be categorized as service work).

**Task 3:** Suggest a normative framework for a high-quality and effective social science research agenda, which, if operationalised, would lead to a realization of the CGIAR System Priorities and a furtherance of the CGIAR vision.

The framework represents an "ideal" against which the Panel can assess the actual situation in terms of a SWOT analysis (strengths, weaknesses, opportunities and threats). The framework will be developed by the Panel Chair, the task force and any other resource



persons as deemed necessary on the basis of the information and analysis from Phase 1. It will function as a template for evaluation during Phase 2.

**Task 4:** In consultation with Centers, identify a body of social science work that a) represents a significant share of the social science research activities; and b) corresponds to what the panel agrees are core functions for social science in the System.

**Outputs:** Report describing the findings of Phase 1; and Terms of Reference for Phase 2 of the study.

#### *Phase 2: The Analytical Phase*

**Task 1:** Examine and assess the conduct of the selected social science activities in Phase 1 terms of the use of appropriate methodology and awareness of other work in the field.

**Task 2:** Assess the quality of the conception, analysis and presentation of the selected social science activities.

**Task 3:** Assess the value of work by examining (i) its contribution to the Center and its partners (by providing internal guidance and support or products that can be used by others); (ii) its relevance to the mission of social science research—as defined by the normative framework produced in Phase 1 of the study and (iii) its contribution to each of the disciplines of social science (publication, citations, etc).

**Task 4:** Assess the organization of social science in the CGIAR, including a consideration of the leadership and integration of the disciplines in the Centers.

**Task 5:** Develop a set of indicators and conduct an assessment of the incentives for social scientists in the CGIAR. (This may be done with a set of semi-structured interviews with current staff, those who have recently left, and members of the discipline.) Statistical data may also be used (e.g., salary comparisons). In this spirit, assess the efficiency of social science research.

**Task 6.** Make recommendations for strengthening social science, improving its relevance and effectiveness in the CGIAR.

Visits to selected Centers are planned. Centers can be sampled to include one commodity, one NRM/commodity, and one policy Center. IFPRI will need to be included as a fourth Center.

**Output:** Final Report, including Phase 1 results as an annex.