SPIA Activities Update

Prepared for SPIA 38 and ISPC 2 Meetings
IRRI Headquarters, Los Banos, 8–11 September 2010

This progress report provides an update on SPIA activities since ISPC 1 held at ICARDA in Aleppo, Syria in mid April, 2010. Activities are described under i) recurring activities; ii) on-going studies, and iii) planned studies. Conclusions emerging from the SPIA 38 meeting will be reported verbally by the SPIA Chair at ISPC 2 on 10 September.

I. Recurring Activities

1.1 SPIA's role in the CGIAR PM System: Evaluating Center submissions for the impact culture indicator

In May SPIA completed its evaluation of the Center submissions for the PMS impact culture indicator (2009 data) and entered the results on-line. As in previous years, SPIA's assessment relied on Center self evaluation, SC evaluation and external peer reviewers. A report describing the process and overall results for this year was summarized (Appendix 1) and circulated to Center DGs and IAFPs. In addition, individual feedback was provided to the Centers. SPIA has selected from the case studies submitted by the Centers under Component 3 during the last two years, three to showcase as 'best practice' examples of IAs. As with past practice, SPIA wishes to recognize the good quality and rigour of these studies by preparing short Impact Briefs describing the key elements and results for posting on the CGIAR Impact website. Publishing quality impact briefs responds to calls from donors for more documented evidence of impacts to be made available in the form of such concise publications. The three studies selected this year are from CIP, IITA and World Agroforestry.

1.2. Communication and Networking Activities

Journal publications from SPIA-related studies:
Revised versions of the six case study reports and the synthesis review from SPIA's recently concluded policy-oriented research impact assessment (PORIA) study were accepted by the editors of *World Development* and will be included in an upcoming (September/October) special issue of the journal:

- Impact Assessment of Policy-Oriented International Agricultural Research: Evidence and Insights from Case Studies (Ryan, Walker and Kelley)
- The International Food Policy Research Institute (IFPRI) and the Mexican PROGRESA Anti-Poverty and Human Resource Investment Conditional Cash (Behrman)
- The Perceived Impact of the In Trust Agreements on CGIAR Germplasm Availability: An Assessment of Bioversity International's Institutional Activities (Gotor, Carraciolo and Watts)
- Returns to Policy-Oriented Agricultural Research: The Case of Barley Fertilization in Syria (Ahmed, Shideed and Mazid)
- Assessing the Impact of CIFOR's Influence on Policy and Practice in the Indonesian Pulp and Paper Sector (Raitzer)
- Kenyan Dairy Policy Change: Influence Pathways and Economic Impacts (Kaitibie, Omore, Rich and Kristjanson)
- Economic Assessment of a Change in Pesticide Regulatory Policy in the Philippines (Templeton and Jamora)

A paper summarizing the most important documented impacts of the CGIAR published since 2000 was completed and will be published in the forthcoming issue of Food Policy:

- The Impacts of CGIAR Research: A Review of Recent Evidience (Renkow and Byerlee)

CGIAR Impact Website

The CGIAR impact website http://impact.cgiar.org will be relaunched in September 2010, following a significant overhaul in design and content. Since May, the redesign has been led by consultant Tony Murray of Rua Design (www.ruadesign.com) using the Drupal Content Management Platform (www.drupal.org) and hosted by CGNet (www.cgnet.com). There is a database of some 760 impact assessment studies hosted on the FAO document repository which will remain searchable through the website. Given SPIA's status as part of a hosted secretariat within FAO, it is obliged to file its published documents on this repository. The new website will retain a searchable interface with this database but in a different format. The SPIA flagship Impact Briefs will be given much greater profile on the redesigned site, along with introductory pages for visitors searching for information by research type or type of impact (economic, environmental and social).

European Evaluation Society Annual conference, Prague (6-8 October 2010)

SPIA has organized a session on CGIAR impact assessment for the European Evaluation Association meeting this fall. SPIA member Ross Conner will chair the session and provide an overview of CGIAR's IA approach, followed by representatives from three centers (Elisabetta Gotor from Bioversity, Roberto La Rovere from CIMMYT, and Aden Aw-Hassan from ICARDA) who will describe examples of IA. Hugh Waddington from 3ie (the International Initiative for Impact Evaluation) will then provide his views on the similarities and differences between IA and IE, impact evaluation.

II. On-going Studies

2.1 Advancing Ex-Post Impact Assessment of Environmental Impacts of CGIAR Research

See previous Activities Updates and SPIA 37 Meeting minutes for background and rationale

i) Six case-studies

Lead researchers for each of the six case-studies met with SPIA members and a number of invited resource people at a small workshop in Istanbul (1st - 3rd June). Originally envisaged as a results-sharing workshop, most of the case-studies were still far from complete by that time, and so the emphasis for the workshop was adjusted. Each of the case-study leaders (from CIAT, CIP, ICAR, ICARDA, IWMI, World Agroforestry) gave presentations on progress to date followed by a practical, focused session of dialogue with resource people (Jeff Bennett, Mitch Renkow, John Dixon, Bekele Shiferaw, Paul Vlek, Jeff Sayer, plus SPIA members) on how best to finalise the study. It was agreed that the case-studies should report to SPIA by 15th August.

In a discussion on why there was not more documented *ex-post* evidence of environmental impacts in the CGIAR, there was a degree of consensus that a lack of appropriate methods is not the problem – the challenge is getting the data. A lack of clear incentives at the system level, combined with the high cost of getting good biophysical data on changes in agricultural systems, have resulted in the CGIAR being underinvested in the datasets required for more integrated *ex-post* impact assessment.

ii) Paper by Mitch Renkow "Assessing the environmental impacts of CGIAR research: Toward an analytical framework"

SPIA commissioned this paper in January 2010, received an outline in March, and a first draft in May. The first draft was focused on confirming the hypothesis that there is a lack of credible studies of the environmental impact of CGIAR research. Following a review by SPIA members which emphasised the need to develop an analytical framework and critique the methods available for use in the CGIAR, a more comprehensive second version of the paper was received in July. This version has now been reviewed by

three external referees. SPIA is currently developing a consolidated set of comments to send to the author for finalizing.

iii) SPIA land use paper
SPIA members have been working on the links between research-led productivity increases and land-use change (conversion of forest, savannah, steppe etc to agriculture), with the specific aim of synthesising the findings from the last ten years in this important and complex literature. A revised annotated outline has been prepared since SPIA 37 and sections on oil palm, soybean, rice, and pasture are being drafted to be reviewed and discussed at SPIA 38.

In the process of reviewing this literature, the opportunity to commission a short piece of research that could greatly enhance the quality of the overall paper was identified. SPIA is in the process of commissioning some analysis using the GTAP model (the predominant computable general equilibrium model for this kind of analysis) to examine the impact of research-led productivity gains on land-use changes globally, reanalysing the simulations carried out by Evenson and Rosegrant (2003) and also examining the specific impacts of changes in productivity in oil palm, soybean, rice and maize. The modelling work will for the first time provide estimates of the ex post impacts of productivity changes on land use conversion from forest. Terms of Reference for these analyses have been drafted and SPIA is in the process of appointing Nelson Villoria at Purdue University to work for two months from August to October.

2.2 Crop germplasm improvement: impact initiative with Centers and the Gates Foundation

See previous Activities Updates and SPIA 37 Meeting minutes for background and rationale

Since the last SPIA meeting, the PSC has met twice (virtually) to receive updates from the project coordinator (Tom Walker) and to move forward/take action on several fronts of this project which is dubbed "Documenting the Impacts of Improved Varieties in Africa" or DIIVA. These are described in the minutes of the recent meetings (see Appendix 2). The critical areas which have occupied the PSC and project coordinator's time over the last several months are:

- submission of 1998 databases and development of plan for consolidating and structuring the integrated database
- finalization of the Letters of Agreement and signing by all Centers
- development of a 'molecular marker proposal' to be funded separately but linked closely to the DIIVA project
- development of TOR for survey statistician and identification of a suitable candidate
- completion of a document providing guidance for implementing Objective 1 protocol
- development and circulation of a call for proposals for impact assessment grants under Objective 3 (totaling $750,000) by 15 August and hiring 3-4 external reviewers to evaluate the same.

On the latter, the PSC received eight concept notes from Centers / ARIs and will use reviewers' evaluations (due 28 August) to decide which concept notes should go forward to the full proposal stage. Overall, the project seems to be generally on track.

2.3 Assessing the impact of CGIAR investments in germplasm collection, conservation, characterization and evaluation (GCCCE)

See previous Activities Update and SPIA 37 Meeting minutes for background and rationale

This study will document (measure and value) to the extent possible impacts related to the germplasm collection, conservation, characterization and evaluation (GCCCE) activities by the CGIAR. As past efforts in this sort of assessment have been limited in scope, scale, data and methods, one of the key objectives of this study will be to propose a conceptual framework and set of methods that might be applied in future efforts to estimate these types of impacts. The perspective taken with respect to valuation will be derived from the concept of total economic value, which embraces multiple sources of value.

SPIA has engaged an independent consultant Melinda Smale and Jean Hanson (*pro gratis* from with ILRI), recognized experts in the field, to lead this study. They have submitted an initial report that:

(i) assesses the extent to which quantitative and qualitative evidence exists on the impacts of crop germplasm collection, conservation, characterization and evaluation (GCCCE) within the CGIAR;
(ii) identifies the limitations of the scope, scale, data and methods used to generate the evidence to-date;
(iii) explores the extent to which data may be available at the 11 CGIAR genebanks related to the amount of germplasm conserved by a) type of material, b) period of acquisition, c) extent of characterization/evaluation, d) direction and extent of flow e) type of utilization; and,
(iv) determines whether, in the context of existing data and method constraints, there is value in undertaking a full study to broaden the assessment of impact of the CGIAR on crop GCCCE, briefly indicating the scope of that study.

SPIA members will review the final draft report which was submitted on 15 August at SPIA 38 and discuss next steps, including the possibility of an expert group meeting early in 2011 to plan a more systematic ex-post IA in this area.

2.4. Randomized control trials (RCTs)

See previous Activities Updates and SPIA 37 Meeting minutes for background and rationale

At SPIA 37 it was decided that the next steps for this activity were twofold. Firstly, Mywish Maredia was to prepare a revised section from the SPIA flagship publication "Strategic guidance for ex-post impact assessment of agriculture research" related to the estimation of benefits. This revised section has been circulated, edited and will be discussed in detail at SPIA 38.

The second step was for SPIA to organise a half-day meeting at University of California, Berkeley, 2nd October. This is being planned to immediately follow the UCB-World Bank meeting on the "World Development Report revisited". The SPIA meeting is called: "Increasing the rigor of *ex-post* impact assessment of agricultural research: A discussion on estimating treatment effects" and will benefit from the gathering of a number of eminent researchers in the field of agricultural and development economics. A tentative agenda for this meeting is attached (see Appendix 3).

2.5 Advancing *Ex-Post* Impact Assessment of Social Impacts of CGIAR Research

See previous Activities Update and SPIA 37 Meeting minutes for background and rationale

i) Indicators of well being: poverty levels, hunger and food security, and nutrition

The goal of this study is to assess how technical change in agriculture may have differential effects on different indicators of well being, including poverty levels, hunger and food security, and nutrition. There have been a number of advances in empirical economic work over the last ten years that can be brought to bear on this complex technology-poverty-food security issue. These innovations include a significant growth in the use of experimental and non-experimental methods in development economics; advances in both the amount of household data and the techniques for analyzing these data; new spatial maps of poverty at sub-national levels; and a range of applications of general equilibrium models under different scenarios. A short note describing the rationale and SPIA's intent in moving forward on this high priority impact assessment activity was shared with IFPRI and USAID recently (see Appendix 4).

At the same time SPIA has now hired two consultants (Alain de Janvry and Betty Sadoulet) to take stock of current approaches and outline future options. Their first task is to evaluate the recent advances in data availability and analytical techniques in terms of their application to *ex post* assessment of impacts of agricultural research on poverty as measured by income poverty. Their work (assisted by a graduate student) and report will summarize this assessment, propose a micro-macro framework for assessing impact pathways

from agricultural research to poverty and hunger reduction, and suggest a number of options that could be used by the CGIAR and SPIA in identifying *ex-post* the poverty impact of technological change and the pathways involved in these impacts.

Plans are now underway to host (in collaboration with IFPRI) a small brainstorming workshop on 'new approaches to documenting agricultural research – poverty-hunger impact linkages' on 3-4 December at IFPRI HQ in Washington D.C. A number of experts on poverty, food security and nutrition in relation to agricultural research and development will be invited to attend. The objectives of the workshop are to:

1) Review work to-date documenting impact of CG Center research on CGIAR goals (poverty, food security) - accomplishments and limitations.

2) Evaluate promising new methods and data sources for more comprehensively and more credibly documenting ex-post impacts of CG research on poverty
   a. Methods for causal identification: experimental and non-experimental approaches, new comprehensive data sets
   b. Integration across scales: combining micro-level and macro-level methods
   c. Measurement under real-world constraints: identifying useful (feasible) indicators of poverty and food security (income poverty, nutrition, and related dimensions of gender equality, risk and vulnerability, and empowerment)

3) Identify specific activities/studies in 2011-2012 to broaden or deepen evidence of *ex post* impact of the CGIAR on specific indicators of poverty and hunger, with indicative work plan and budget.

ii) Indicators of gender equity

On behalf of SPIA, panel member Ross Conner is undertaking a preliminary investigation of significant issues related to and good examples of gender equity epIAs. Based on comments and suggestions from people working on gender impact research, several from within CGIAR and several from outside CGIAR (such as the International Center for Research on Women), he will present an oral report at SPIA 38. Based on this preliminary work, SPIA will consider whether and how it could support and provide added value to those working on epIA of gender impacts of CGIAR research.

III. Planned Studies

3.1 Impact of legume improvement research in the CGIAR

As part of its new operational model, SPIA will over the next three years commission Systemwide *ex-post* impact assessments in broad thematic areas of CGIAR research which to-date have not been evaluated but for which anecdotal evidence suggests considerable impact, e.g., legume improvement research, livestock management research, irrigation management. Early in 2011, SPIA will commission an external team to assess the cumulative impacts of legume improvement research across the system to better understand and document impacts of CGIAR research on pigeonpea, chickpea, lentil, lathryus, common bean, soybean and cowpea in terms of their economic, social and environmental impacts in specific regions of the world. Legumes are likely to show especially important impacts on gender equity, nutrition, and sustainable soil management. While the external team will be leading the impact assessment research, analysis and write-up effort, it is anticipated that scientists at ICARDA, ICRISAT, CIAT and IITA would play a key role here interacting closely with the team, in particular, contributing critical adoption, yield and price data and, in some cases, preliminary analyses.

At SPIA 38, members will discuss and develop a strategy and operational plan for commissioning this study and decide on a timetable for implementation.

Appendix 1

SPIA/SC Feedback on the 2010 PMS exercise (2009 data): 'Impact Culture Indicator' Results and Observations

7 June 2010

The Impact Culture indicator measures Centers' efforts to document impact from their past research (hence, *ex post* impact assessment) to fulfil their accountability imperative towards CGIAR stakeholders. It also measures their efforts to institutionalize impact culture among their own researchers and partners. For the 2010 exercise (2009 data) Centers reported information around three main areas that the SC used as the criteria for scoring these submissions:

(1) *Ex-post* Impact Assessment (epIA) studies[1] / advancement of epIA methods (45%);
(2) Building an impact assessment culture at the Center, including communication / dissemination and capacity enhancement (20%); and,
(3) Quality of submission of one published epIA study during the past three years that effectively demonstrates the impact of the Center's research on the poor or food insecure people and to the environment, as judged by peer reviewers appointed by SPIA (35%).

The specific components and sub-components of each of the three Criteria listed above and the weights applied are provided in the PMS Guidelines Annexes for 2010. While SPIA relied on Center self-evaluations for assessing (and scoring) the quality characteristics of the epIAs submitted and accepted under Criterion 1.B, SPIA exercised its own judgement with respect to which studies submitted would be counted as bona-fide epIAs under Criterion 1.A. Since the benchmark for the optimal number of epIAs required had been reduced substantially since the 2008 exercise (one study per $20m of investment vs. one study per $5m), SPIA has been strict in counting only those studies that document adoption and impact (*ex-post*) of Center research and research related activities. SPIA members carefully evaluated the characteristics of each of the studies submitted based on the summary description of the studies provided in Criterion I.A. As was the case in previous years, some of the studies submitted did not qualify as legitimate epIAs (further discussed below)

Table 1 shows the Impact Culture indicator scores for Centers' during each of the past three years and calculates the three-year averages (2007-2009 data)[2] that were reported in the on-line PMS for 2010, along with the results for the year 2009.

[1] For the purposes of this exercise, an epIA study refers to a published journal article, conference paper, book chapter (but not entire edited book), report or any other publication that has entered the public domain, which is not a revised version of an earlier submission, that documents empirically the impact of a center's research or research-related output in terms of CGIAR goals. The impacts measured may be short-term, medium-term or long-term but must be linked to a clearly discernible intervention derived from research.

[2] Since last year SPIA has been reporting results each year in terms of a three-year average. The purpose of this is to smooth out the year-to-year variability in performance that one might expect given that epIA results do not flow through in an even manner and so better reflect real trends over time.

Table 1. Centre Scores for Impact Culture Indicator (2007-2009)

	Overall score			
Centre	**2009**	**2008**	**2007***	**2007-09 (3y avg)**
Africa Rice	7.5	7.1	7.3	7.3
Bioversity	6.2	8.0	3.2	5.8
CIAT	7.8	6.7	5.9	6.8
CIFOR	1.5	7.8	6.9	5.4
CIMMYT	7.5	8.2	7.0	7.6
CIP	8.2	7.4	6.5	7.4
ICARDA	7.1	6.8	7.5	7.1
ICRISAT	6.0	7.6	7.7	7.1
IFPRI	7.1	7.7	6.6	7.1
IITA	8.4	7.5	6.7	7.5
ILRI	5.5	7.4	3.6	5.5
IRRI	7.5	7.9	5.8	7.1
IWMI	7.5	7.9	3.0	6.1
World Agroforestry	8.1	7.2	5.8	7.0
WorldFish	5.5	7.0	7.2	6.6
Average	**6.8**	**7.5**	**6.0**	**6.8**

* calculating by weighting and combining 3A (65%) + 3B (35%) scores
(to compare with 2008 and 2009)

The three-year (2007-2009) average score remains relatively unchanged from last year's three-year score (6.8 vs. 6.7). However, the average Center score for the year 2009 is below last year's average score of 7.5. While some degree of year-to-year variability is normal and to be expected, the lower score in 2009 primarily reflects two Centers (CIFOR, Worldfish) that are experiencing a pause in the flow of epIA activity and results. Both are currently in the process of hiring impact assessment senior staff. Note, these centers typically have above average performance with respective to the impact indicator score. Of the remaining 13 centers, nine saw an improvement this year in their three-year average scores and two remained unchanged, so in general, this constitutes an improvement in overall performance.

Table 2 shows the total and individual criteria scores for each Center for 2010 (2009 data). Only summary data is presented here. Individual feedback has been sent to each Center providing a more detailed analysis.

IITA, CIP, World Agroforestry, CIAT and Africa Rice had the best overall performance this year and all five of these Centers showed significant improvements over last year's performance.

Table 2. Centre Scores for Impact Culture Indicator - 2009 data

Centre	Criterion 1 (max=45)	Criterion 2 (max=20)	Criterion 3 (max=35)	Overall score (max=100)	Overall score (1-10 scale)
Africa Rice	38.4	13.9	22.8	**75.1**	**7.5**
BIOVERSITY	27.3	12.7	21.5	**61.5**	**6.2**
CIAT	41.1	13.2	23.7	**78.0**	**7.8**
CIFOR	1.4	13.2	-	**14.7**	**1.5**
CIMMYT	39.0	15.4	20.1	**74.5**	**7.5**
CIP	39.1	15.1	28.0	**82.2**	**8.2**
ICARDA	36.9	12.1	22.3	**71.2**	**7.1**
ICRISAT	37.6	10.0	12.8	**60.4**	**6.0**
IFPRI	33.4	10.7	26.4	**70.5**	**7.1**
IITA	38.2	16.5	28.9	**83.6**	**8.4**
ILRI	26.3	14.3	14.6	**55.2**	**5.5**
IRRI	37.0	15.5	22.8	**75.3**	**7.5**
IWMI	39.7	16.0	19.3	**75.0**	**7.5**
World Agroforestry	39.0	16.8	25.5	**81.3**	**8.1**
WorldFish	36.2	19.0	-	**55.2**	**5.5**
Average	**34.1**	**14.3**	**19.2**	**67.6**	**6.8**

This year Centers submitted a total of 46 studies under Criterion 1.A (Table A.1 in Annex), considerably less than the number submitted last year (60). Of these, some 32 were adjudged by SPIA to be bona-fide *ex post* impact assessment (epIA) studies[3]. While the total number of submissions was less, the percentage of those accepted this year was significantly higher (70% this year vs. 58 % last year). SPIA is pleased to see that Centers are becoming more selective in their submissions, which hopefully reflects a commitment to conduct fewer epIAs of higher quality, characteristic of the expectations laid out in the guidelines, and consistent with the recommendations from the Social Science Stripe Review.

While performance varies across the Centers for each of the three Criteria, a considerable amount of variance was found, like last year, in Criterion 3. Criterion 3 is the SPIA commissioned evaluation by external peer reviewers of the quality and rigour of an epIA done by the Center in the last three years. SPIA used three external reviewers, individuals with known expertise in impact assessment, to assist with this evaluation which was based on specific criteria/questions described in Annex III of the Guidelines. In the few cases where peer reviewers had widely conflicting views and assessments, SPIA members adjudicated. The average lower score this year (19.2) compared to last year (22.9) largely reflects that absence of submissions from CIFOR and Worldfish.

SPIA is reviewing the epIAs with the highest scores under Criterion 3, in particular, those submitted by IITA, CIP, IFPRI and World Agroforestry, and will consider producing short Center 'best practice' impact briefs to showcase some of these higher quality epIAs, assuming centers would be interested. SPIA did a similar exercise back in 2007.

[3] As explained in the Guidelines, epIAs must include some measurement of adoption beyond the household or village level and some measure of ex-post impact as a result of that adoption. Adoption constraints analyses, pilot technology evaluations, farmer preference and demand type studies and *ex-ante* impact assessments are not, for this exercise, regarded as epIAs. While those studies are useful in their own right, and may well be counted as outputs, none of these qualify as epIAs for purposes of this exercise. While there may well be an element of *ex-ante* in many epIAs, there must be some measurement of adoption and ex-post impact to qualify.

Annex

Table A.1. Number of Studies Submitted by Centres and Accepted as epIAs by SPIA in 2010 PMS exercise

Centre	# of studies submitted	# of studies accepted	Percent accepted
Africa Rice	3	2	67
BIOVERSITY	2	1	50
CIAT	3	3	100
CIFOR	0	0	0
CIMMYT	6	5	83
CIP	2	2	100
ICARDA	2	2	100
ICRISAT	7	2	29
IFPRI	4	2	50
IITA	3	2	67
ILRI	2	1	50
IRRI	4	4	100
IWMI	3	2	67
World Agroforestry	2	2	100
WorldFish	3	2	67
Total	46	32	70

Appendix 2

4th Project Steering Committee meeting, 4 May 2010: Major Outcomes and Follow-up Actions Required

Participants: Derek Byerlee, Mywish Maredia, Elisabetta Gotor, Tom Walker, Greg Traxler, Tim Kelley, James Stevenson, Gerry O'Donoghue (for last three items)

1. Welcome from the Chair

2. Follow-up from previous minutes

a. Center rep as observer for PSC meetings
Does not appear to be strong demand from the centers to take part in the PSC meetings (observer status); will reconsider if demand appears

3. Update from Project Coordinator

a. LOAs / responses from Centers
Letters have been sent from Bioversity to seven Centers; no replies yet. Chair requested an update from Bioversity on the status by 14 May.

b. 1998 data sets
With the submission by ICRISAT, all centers have now submitted their 1998 databases. There is considerable variability in structure and content across centers. TW suggested this item be put on next meeting agenda (how to organize/analyse the databases, drawing on assistance of Univ of Washington students) but will provide a one-page summary note to the PSC in two weeks.

c. HarvestPlus survey work on cassava in Nigeria
After lengthy discussion about proposal for IITA – HarvestPlus collaboration on adoption survey of cassava in Nigeria, the PSC agrees in principle with the HarvestPlus-IITA proposal to advance the date of the diffusion survey in the DIVA Project so that funding from the two projects would complement each other but the PSC had some concerns about and would like further information on the following aspects: i) commodity coverage (only cassava would be surveyed; therefore no coverage for maize, cowpeas, soyabean, or other center crops; ii) signal this sends to other centers encouraging reduction in commodity coverage; iii) degree of complementarity in objectives, sampling frames, questions, etc; iv) stronger relative emphasis on household surveys (vs. community surveys) in the HarvestPlus proposal. There is also the issue of timing and disbursement of funds prior to November. GT noted that it was easier to reallocate funds from this year's tranche than to advance next year's; therefore, he asked TW to come up with a feasibility estimate for doing that. PSC requested TW to discuss these concerns (tradeoffs) with IITA and revert back to PSC for further consideration (by email).

d. Molecular marker proposal
Proposal from Peter Gregory (Cornell) and Kassa Semagn (CIMMYT) and interaction with Rob Tripp summarized. Discussion focused on choice of BECA or alternative supplier (Australian private company) using a different technique (DART) who Kathy Khan in S&T division of BMGF has been working with. GT will send PSC an update on the latter option following meeting in Nairobi this Friday. Thereafter, PSC will consider the two options.

e. Statistician
TW initiated contact with Roger Stern and others at Reading but nothing moving yet; will follow-up. Agreement reached that a statistician should be identified within a month. TW will circulate list (preferably ranked) to PSC for consideration.

f. Adoption surveys / Cheryl Doss suggested questions
Comprehensive report from Cheryl Doss, but need to narrow it down and extract the needful as input into a guidance document for Objective 2 (see item 3.h).

g. Project website
TW apprised group of the project website – now up and running – development of which was spearheaded by staff at BMGF and U of W. In addition to the presentations from PIM, the 1998 datasets will eventually be placed there.

h. Guidance document for Objectives 1 & 2
Some formal guidance would be useful to give the centers for executing activities under Objectives 1 and 2. For Objective 1, this could be extracted from the Key Points Emerging from the Addis Meeting, suitably elaborated. For Objective 2, Cheryl Doss' report provides some pertinent material, but it will require some interaction with centers. TW will work on these.

4. Call for concept notes for Objective 3 grant money
Draft call for concept note document circulated last week was briefly discussed. DB requested all PSC members who have not yet done so to provide comments on the draft to TK by Thursday (6 May), after which it will be shared with Centers (DIVA participants), finalized and circulated widely for eliciting proposals. Agreement reached that an indirect cost allowance up to 15% is acceptable and need to add a 'cost effectiveness/value for money' criterion in the table. Prospects for commissioning a study to estimate 'k' factors and coordinate across centers was considered; will keep the option open.

5. PIM for South Asia component
TW and GT are attending this PIM meeting to be held in Kathmandu on 8-9 June. EG and MM will consider whether they have an interest and are able to attend, but it appears TW and GT presence should be sufficient for this purpose.

6. Other business
No other business. Date for next meeting not yet fixed (before August).

5th Project Steering Committee meeting, 6 July 2010: Major Outcomes and Follow-up Actions Required

Participants: Derek Byerlee, Gerry O'Donoghue, Mywish Maredia, Elisabetta Gotor, Tom Walker, Tim Kelley, James Stevenson

1. Welcome from the Chair
Chair welcomed the members and suggested a revised agenda (objective by objective)

2. Objective 1 status report
a) LOAs
With the exception of IITA, all participating Centers have signed LOAs with Bioversity and initial tranche of funds have been released and thus work on Objective 1 is underway. TW provided an update on the IITA situation, which is still uncertain. Contingency plans for alternative supplier would have to be developed. PSC will continue to interact with IITA to encourage signing of the LOA (highly desirable outcome) but will also investigate contingency plans for an alternative supplier.
b) 1998 datasets
All centers have submitted to TW their 1998 datasets, essentially large spreadsheets with considerable variability and heterogeneity in the structure and content. Before a decision can be made about how and when to make the databases available to the public (through ASTI platform or other), a preliminary inventory and

assessment of how best to organize and structure the databases are required. TW will work with Univ of Washington students on the latter and will present an update on progress at the next PSC meeting.

3. Objective 2 status report

a. Survey statistician

PSC members agreed that the proposed candidate (information on which had earlier been circulated) appears highly suitable and requested TW to approach the candidate to assess interest and availability.

b. Guidelines for conducting surveys of country-level adoption surveys

As this is a high priority area, PSC requested TW to prepare a first draft set of guidelines as soon as possible in order to have a final set of guidelines before end of August (well before Centers submit Obj 2 proposals). Final guidelines will require input from PSC, survey statistician and Centers themselves (latter particularly important for buy-in) and should ensure consistency and harmony across Centers but still maintain some degree of flexibility.

c. DNA fingerprinting proposal

Proposal is now entirely with CIMMYT and entails splitting up the wheat (using Australian firm supplier) and the maize (BECA) molecular marker effort. Separate project grant money from Gates will cover. Contract for Rob Tripp is under preparation by TW. Issue of complying with CBD must be addressed in terms of taking seed samples from Ethiopia for analysis in Nairobi or Australia. However, Ethiopia offers a much better test case than Kenya where maize hybrids are widely grown and wheat is grown by large commercial farmers—both entailing annual seed purchases. CIMMYT or GT should follow-up.

4. Objective 3 status report

Call for concept notes went out May 25 to Centers and broader community. Deadline for submission is 15 August, and notification of early winners by 7 September. Window for external peer review (team of 3-4 people) and subsequent assessment and decision by the PSC is narrow. TK asked to circulate a list of potential candidates, timeframe and template for evaluation by external reviewers. Peer reviewers should be contacted and confirmed ASAP.

5. PIM for South Asia (IRRI and ICRISAT) component

Meeting in Nepal early last month attended by TW and GT. Meeting report synthesizing key outcomes had been circulated earlier. It's important to keep up interaction between these regionally differentiated but otherwise very similar projects.

6. Other business

Next PSC meeting will be held on either 31 August or 1 September.

Appendix 3

Increasing the rigor of ex-post impact assessment of agricultural research:
A discussion on estimating treatment effects

A half-day meeting hosted by the CGIAR Standing Panel on Impact Assessment
Saturday 2nd October 2010, 2pm – 5.30pm, University of Berkeley, California

Participants (tentative list)

- Alain de Janvry, Elisabeth Sadoulet, Andrew Dustan, Paul Gertler (UC Berkeley)
- Julian Alston (UC Davis)
- Greg Traxler (Gates Foundation)
- Martin Ravallion (World Bank)
- Derek Byerlee, Mywish Maredia, Ross Conner, James Stevenson (SPIA)

Background

Ex post impact assessments (epIAs) as practiced in agricultural research for development (R4D) refer to assessments that are designed to identify and measure the magnitude and scale of economic and social consequences resulting from the adoption of outputs (i.e., new/improved technologies, practices, knowledge, policies, institutional innovations, etc.) from research efforts. Its timing (*ex post* of the evidence of widespread adoption) is its defining characteristic. The methodology involves tracing the results along the impact pathway from research to outputs, to outcomes and impacts. The step from research outputs to outcomes relies on two key parameters—the size of the adoption of a research output and the average effect size (or the *k* factor), which measures the effect of a research output per unit of adoption compared with a counterfactual. The step from outcomes to impacts involves using models that take into account the equilibrium effects of scaling up the effects of research over time and space.

This session on increasing the rigor of epIA is focused on the step from research outputs to outcomes, and specifically on the estimates of the effect size parameter. Nonetheless, the motivation for this session partly stems from the desire to expand the comprehensiveness and methodological options in the latter step that traces outcomes to impacts. Traditionally, this latter step has involved estimating total benefits derived from the economic surplus models and comparing them with total costs to derive measures of project worth such as the internal rates of return (IRR) or Benefit-Cost (B-C) ratio. EpIAs based on this approach have traditionally addressed the following evaluation question—how do total monetary benefits of a research program, project or activity compare with total costs?

However, with the increased call for measuring and evaluating impacts that give a broader, accurate, rigorous and multi-dimensional perspective on how investments in research are contributing towards developmental goals, there is a need for alternate methods, new concepts and meaningful measurements of the 'project worth.' The goals, methods and measures used in traditional epIAs need to make room for methods and approaches that are better able to address a more direct evaluation question—what are the effects on poverty, hunger and resource degradation as a result of the adoption of research outputs generated by agricultural R4D?

Objectives

- To briefly review the methodological approaches traditionally used to estimate the effect size in epIA of agricultural R4D
- To assess the challenges and limitations of traditional method/approach in light of the need to rigorously measure and evaluate multi-dimensional long-term impacts of R4D
- To explore alternative rigorous and robust approaches for ex-post estimation of effect size and the constraints to their wider application in the context of agricultural R4D

Logistics
The meeting will commence immediately after the World Bank – UC Berkeley meeting on agriculture for development, which is a follow up to the World Development Report (WDR) 2008. The WDR meeting will run for 1 ½ days starting in the morning of Friday 1st October – see annex for draft agenda. Many of the participants in the SPIA meeting will also be present at the WDR meeting and SPIA have scheduled our meeting in order to take advantage of this fact.

If you have any questions, do not hesitate to contact James Stevenson: james.stevenson@fao.org

Tentative Agenda for SPIA meeting (Saturday 2nd October 2010, 2pm – 5.30pm)

Chair: Derek Byerlee
Rapporteur: James Stevenson

1. Introduction and overview of the Session – D. Byerlee (10 minutes)

2. Increasing the rigor, robustness and multi-dimensionality of impacts in epIA: Can it be achieved and how? Review of traditional approaches to epIA, challenges, and guidelines for estimating the effect size in epIA – M. Maredia (30 minutes)

3. Estimating the effect size parameter to assess *ex post* impacts of outputs generated by agricultural research: Critique of traditional methods and exploring the role of new methods of impact evaluation – A. de Janvry, E. Sadoulet, P. Gertler (30 minutes)

4. Perspective of a CG Center practitioner and donor on rigor and credibility of epIA – G. Traxler (10 minutes)

5. Discussion of emerging themes from Presentations (40 minutes)
   Lead discussants – M. Ravallion and J. Alston

   Followed by open discussion (moderated by the Chair)

6. Conclusion and wrap-up – D. Byerlee

Dinner hosted by SPIA for those still around in the evening

Appendix 4

SPIA Briefing Note, 3rd May 2010

Assessing the impacts of research-led agricultural technologies on poverty and hunger: Plans for a major new initiative by the CGIAR Standing Panel on Impact Assessment (SPIA)

Derek Byerlee (SPIA Chair); James Stevenson; Tim Kelley, Mywish Maredia; Ross Conner

Background

There has been a steady stream of academic papers since the 1960s that aim to provide an overview of the causal linkages between new research-led agricultural technologies and the conditions of the world's poorest people[4]. What is clear from these reviews is that technological change in agriculture has the potential to impact poor people positively or negatively (and in some cases both at the same time via different causal pathways). These causal pathways include direct impacts on producers (via incomes of poor farm households) and indirect impacts (via changes in food prices, labour markets and by stimulating economic growth). Nevertheless, how these various factors play out, i.e., their differential effects across diverse groups of households under different technology-environment combinations, is a complex phenomenon and in need of further study and greater fundamental understanding. Moreover, technical change may have differential effects on different indicators of well being, including poverty levels, hunger and food security, and nutrition.

Fortunately, there have been a number of advances in empirical economic work over the last ten years that can be brought to bear on this complex technology-poverty-food security issue. These innovations include a significant growth in the use of experimental methods in development economics; advances in both the amount of household data and the techniques for analyzing these data; new spatial maps of poverty at sub-national levels; and a range of applications of Computable General Equilibrium models under different scenarios.

The Standing Panel on Impact Assessment (SPIA) has a 15-year history of oversight of ex-post impact assessment in the CGIAR system, with a mandate to assure the quality of information received by donors regarding the impacts of their investments. However, the majority of the studies commissioned to date have continued to estimate economic impacts, through a traditional focus on producer and consumer surplus and subsequent cost-benefit analysis. This is no longer sufficient from the perspective of donors, who need more credible evidence linking research to the three high-level goals of the CGIAR (poverty reduction, food security and environmental sustainability).

In addition, the ongoing CGIAR reform process has provided SPIA with more resources and a mandate to operate more independently. This new *modus operandi* means SPIA will increasingly be coordinating longer-term impact studies (2-3 years), in collaboration with advanced research institutes and in partnership with the Centers. In addition, SPIA will pursue ways to leverage its CGIAR funds to expand the resources available for studies. For the current activity, SPIA will work closely with IFPRI, utilizing special supplemental funding from USAID.

The proposed activity will have three major objectives;

1. Evaluate recent advances in data availability and analytical techniques from household to macro levels in terms of their application to *ex post* assessment of impacts of agricultural research on poverty (as measured by income poverty) and food security.
2. Select a small number (1-3) of 'low hanging fruit' to undertake case studies of *ex post* impacts of CGIAR research on poverty and hunger.
3. Provide guidance to future design of the CGIAR Strategic Results Framework and Megaprograms for tracking impacts of megaprograms on poverty and hunger.

[4] Prominent examples in this tradition include: Mellor and Johnston (1961), Lipton and Longhurst (1989), Kerr and Kolavalli (1999), Byerlee (2000), Irz, Lin, Thirtle and Wiggins (2001), de Janvry and Sadoulet (2002), Herdt (2006)

The study will be divided into four stages to be implemented from October 2010 through April 2012.

1. **Development of a short concept note**

   This will be prepared by SPIA to summarize the current state of the art with respect to causal pathways, past work on evaluating research impacts on poverty (with a focus on income poverty) and hunger, and new data sources and methods becoming available.

2. Brainstorming workshop on poverty impacts: Dec 3-4, USA *(location and date TBC)*
SPIA is planning to organise a small brainstorming workshop on 'new approaches to documenting agricultural research – poverty-hunger impact linkages' over two days, in October 2010. The objective of the meeting is to hear from a number of leading experts across a range of disciplines/methods relevant to analysis of poverty and food security, particularly on their perspectives for a research agenda for SPIA over the coming years. Which methods can most productively be applied to particular situations for *ex-post* analysis? Which kinds of studies should the CGIAR invest in for the future?

The group will be small, to allow for focused discussion, and invitees are expected to include leading experts from Cornell University, University of California, Berkeley, World Bank, IFPRI, SPIA and others to be identified.

3. Commissioning of one to three studies of *ex post* impacts of CGIAR research on poverty and hunger.

   The choice of studies will depend largely on the outcomes of the workshop as well as perceptions on areas where the CGIAR products have been sufficiently widely used to merit more in-depth analysis of impacts on poverty and food security. Small grants may be provided for pilot studies of promising methods.

4. **Synthesis and next steps**

Findings will be synthesized for different users;

- Donors interested in ex post impacts,
- The CGIAR centers and the Consortium for design of results frameworks for megaprograms
- SPIA for orienting future impacts work.

Resources and oversight

Total resources are expected to be $500,000 from USAID and up to $200,000 from SPIA. A committee consisting of the SPIA chair, one representative from IFPRI, and one from USAID will provide oversight.

The current activity will run from Oct 2010 through to mid-2012.

Please contact James Stevenson (james.stevenson@fao.org) or Tim Kelley (timothy.kelley@fao.org) for further details.