2. Project Objectives and Components:

a. Objectives:

The objective as stated in the Grant Agreement (p. 4) was:

to enhance regional collective action in agricultural research for development, agricultural extension programs, and agricultural training and education to promote economic growth, reduce poverty, eradicate hunger, and enhance sustainable use of resources in the regional agricultural systems of Eastern and Central Africa, through support to the activities of ASARECA.

This statement is also the mission of ASARECA. The objective therefore was, in effect, to support ASARECA's stated mission.

The language of the Technical Document (November 26, 2008) was somewhat different, namely

to support a program of integrated agricultural research for development (IAR4D) as described in ASARECA's Operational Plan. This will contribute to more effective use of resources devoted to agricultural research among the member countries and resulting (sic) in wider access to the results of research in regional agricultural systems of Eastern and Central Africa.

This review uses the Grant Agreement version.

There was a restructuring on October 4, 2012 associated with additional funding from USAID and the EC. Partly to accommodate the intent of this additional funding the PDO was narrowed to the following: "to enhance access and
Utilization of agricultural research technologies and innovations in the regional agricultural systems of Eastern and Central Africa. However, the adjusted indicators arising from this modest restructuring suggested less narrowing than the objective statement did. The four main revised indicators covered technology adoption, policy reforms, stakeholder satisfaction and beneficiary satisfaction by gender. The project team noted that, at this restructuring, the overall objective of ASARECA remained the same, while the narrower objective increased the technology and adoption focus of the last phase of (additional) funding.

The effective difference between the before and after restructuring intent is small since: (a) the overall objective of ASARECA remained unchanged throughout with the later grant program objective focusing predominantly on certain parts of it associated with the additional funding; (b) despite the changed language the post-restructuring indicators still covered access, adoption, policy reforms, and satisfaction; and (c) the program still supported ASARECA’s governance.

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Components:

Component 1. Research for Development (Appraisal US$48.55 million; Actual US$48.27 million). This was to fund priority research sub-projects selected by a competitive grants system, or in some cases commissioned directly, and endorsed by the Board of Directors of ASARECA. It also included funding for agricultural research policy work and work with partners at national level to enhance extension.

Component 2. Support to ASARECA’s Governance Structures (Appraisal US$1.56 million; Actual US$1.65 million). This was to strengthen overall governance and oversight and included technical assistance, advisory services covering operating procedures, financial management, procurement, and communications.

Component 3. Support to ASARECA’s Management and Administration Structures (Appraisal US$9.08 million; Actual US$9.07 million). This was to strengthen the administration and research support of ASARECA and to improve ASARECA’s infrastructure.

Component 4. Management, Administration and Supervision of the Trust Fund (Appraisal US$1.74 million; Actual US$1.74 million). This was to fund costs incurred by the Bank in managing the Multi Donor Trust Fund.

The ten countries being supported at the project start were: Burundi, Democratic Republic of Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania, and Uganda. South Sudan joined later.

d. Comments on Project Cost, Financing, Borrower Contribution, and Dates:

Project Cost.

Total cost figures given in the ICR page 25 include the additional financing of US$5.60 million. There were no borrower contributions direct to the program but there were small member contributions direct to ASARECA. Including the additional financing, the total project costs were US$60.93 million.

Financing.

Financing into the fund was from the institutions participating in the Comprehensive Africa Agricultural Research in Eastern and Central Africa (CAADP) Pillar 4 program. The donor contributors are not listed in the ICR. There were also a number of collaborative activities outside the trust fund but supporting the overall program. The financing was the same as the project cost at US$60.93 million.

Borrower Contribution.

As a multi-donor trust fund there was no borrower contribution. However, the member countries (see list above) contributed very modest amounts of about US$5,000 each annually and there were some reduced or late payments.

Dates. A Mid-term Review was undertaken in September 2011 and an informal restructuring was carried out to include dissemination of information and innovations in line with a revision of the overarching results framework. A formal restructuring took place in October 4, 2012. The project closed with disbursement as scheduled at the end of 2013, an implementation period of a little over 5 years. However, the donors agreed to extend the program for another 5 years to 2018 to allow for completion of OP I activities including the additional financing and to continue into the phase 2. The project closed on 12/31/2013 but the multi-donor trust fund continues until 2018.

3. Relevance of Objectives & Design:
a. Relevance of Objectives:
Rated High. The objectives were highly relevant to the needs of the members (initially 10 later 11) all of whom have a focus on agricultural growth in their development strategies. The objectives were the same as the objectives of the project entity ASARECA since they were taken from its objectives. It can be assumed that they were also consistent with the donors objectives for agricultural development in Eastern and Central Africa since they made decisions to contribute to the fund.

b. Relevance of Design:
Rated Modest. The design was partly consistent with the objectives but there were weaknesses with some disconnect between objectives and design. There are some questions about the extent to which the design itself gave sufficient attention to the key statement in the legal agreement objective which was “to enhance regional collective action”. While there were a number of activities that supported collective action, much of the support went for national priorities and, in the event, some two-thirds of the funding went to three countries.

The original key indicators reflected largely the Technical Document PDO that was more research, technology and adoption oriented as opposed to oriented towards inter-member collaboration. In this respect, the Results Framework indicator changes suggested some lack of design clarity about the extent to which the fund was to support merely promising technologies and adoption and the extent to which it was to pursue “collective action” across members. Greater clarity on this issue at the outset could have improved design and focused indicators.

Collective action is being pursued under the second phase plan with an aim to bring on the less advanced national research programs through more partnerships.

4. Achievement of Objectives (Efficacy):

The first three years of the OP I program, that is the portion of the on-going program that is the subject of this review, were focused mainly on the generation of technologies and improved management practices. The emphasis of the last two years shifted towards the scaling up (or “out-scaling” as the ICR calls it).

The Grant Agreement objective was: to enhance regional collective action in agricultural research for development, agricultural extension programs, and agricultural training and education to promote economic growth, reduce poverty, eradicate hunger, and enhance sustainable use of resources in the regional agricultural systems of Eastern and Central Africa, through support to the activities of ASARECA.

This objective is broken down into two constituent elements. The first is the means element; “The extent to which regional collective action in research, extension, training and education was enhanced” and the second is the ends or outcome element; “The extent to which economic growth, reduced poverty, eradication of hunger, and enhanced sustainable use of resources was promoted”.

Subobjective 1: The extent to which regional collective action in research, extension, training and education was enhanced.
Rated: Modest

There is some evidence that suggest positive achievement in the direction of collective action notwithstanding a design and indicators more focussed on technology development and adoption.

Some of the competitive grants programs did require cooperation between at least three countries and some involved cooperation between different institutions however the percentage of multi-player activities was not reported although according to the ICR (p.10) the focus of the grants program was on regional not simply national priorities (ICR p.10).

A number of the policy initiatives supported by the policy unit in ASARECA were focused directly on integration of policies but these, while contributing to potential collective action, mostly do not appear to be "collective action (by members) in research, extension, training and education". There was analytical work on about 100 different policies. Inter-country coordination was evident in the harmonization of seed regulations (ICR p. 14), harmonized standards for products such as cassava, and the study of price transmission mechanisms between Ethiopia, Kenya, Tanzania, and Uganda to tackle price volatility. The project team cited some other areas of collaboration, one of the most essential being livestock disease. They also noted in discussion that the ASARECA program itself is guided by a board with member country representation to ensure multi-country relevance and that this guidance extends to the work program and budget. As noted in the ICR (p. 14), “As a regional body, ASARECA is well placed to address some of the national barriers”.

ASARECA’s activities in capacity building supported under the MDTF brought many professionals from different
While countries together. While this is not evidence of collective action at an outcome level, it is probable that it enabled considerable sharing of experiences.

It is also reported in the ICR that ASARECA held many priority-setting workshops that brought in researchers and other players from member countries including government agencies on research, NGOs, the private sector and farmers. The ICR reports that, "this process was effective in ensuring congruence with regional priorities.

Where it is less easy in the ICR to discern the extent of integrated agricultural research is in the rationalization and complementarity between national research programs that would be a core part of a program of integrated agricultural research. Collective action presumably would include one country specializing more in one commodity and another specializing more in another, exploiting comparative advantage. It is not clear from the ICR that this happened on any scale.

However, it should be noted that ASARACA has no authority itself to require coordination of agricultural research and extension among members. It could only support collective action and integration towards effective use of resources indirectly through wise direction of grant funds, and by policy work with cross boundary relevance. The evidence suggests that ASARECA itself did give substantial attention to regional policies and coordination. It is less clear that the members did.

**Subobjective 2: The extent to which economic growth, reduced poverty, eradication of hunger, and enhanced sustainable use of resources was promoted.**

**Rated: Substantial**

There is limited direct evidence for this depending on whether "promoted" is interpreted as an output in the sense of the act of promoting some promising new technology or policy or an outcome in the sense of the achievement of what was promoted. While in the context of the overall objective statement, the latter interpretation is more valid, as noted above, ASARECA itself and therefore the supporting fund had no authority to reach beyond promotion into national practice and policy. Nevertheless, there is evidence of outcome beyond mere promotion.

The evidence for the productivity impact of the majority of the grant programs is quite strong. Targets were met for technology generation. A total of 498 demand-driven technologies, innovations or management practices (TIMPs) were made available for uptake. The rate of adoption (ICR p. 28) rose from 20.6% in 2009 to 64% in 2013 with the average meeting the first plan target. While direct income data are not available, it is plausible that such adoption had income impacts in the absence of some countervailing negative trend. This is supported by the fact (ICR p. 37) that the surveyed beneficiary satisfaction levels with innovations rose from an estimated 5% at the baseline to 33% by year 2 and finally to 81% by year 5. This suggests a perception of an income benefit. Furthermore, the numbers of direct beneficiaries rose from a baseline of 2,014 to 422,176 stakeholders, the latter being close to double the original target. These pieces of evidence suggest growth and possibly income impact. The income evidence would plausibly have a household poverty impact for adopters although this would depend on the overall shifts within the whole farm system to accommodate the technology adopted.

There is a substantial volume of case or anecdotal evidence from particular grant schemes presented in the ICR. To give three examples, there is data showing an income increase from dairying of 52.4% (ICR p. 39), there is evidence of individual farmers making large income gains from selling improved seed or planting material, and there is evidence of income gains from a sub-project producing hay; however, as noted by the impact evaluation, attribution has been an issue.

There is limited evidence on hunger impact although it seems likely that the positive income impacts would have had positive consumption impacts. However, 34,155 households benefited in terms of quantity and nutritional quality from an improved bean technology. Disease free planting materials in several crops have reduced losses or raised yields including in food crops important to the poor such as cassava.

On sustainability of land use, there is evidence given in the ICR (p. 42) of significant gains in moisture retention from moisture conservation farming practices in a model watershed. Napier grass cultivation in pits in dry areas has had considerable success leading to higher measured dairy milk yields. Work was been supported in degraded/crusted lands in semi-arid areas. Tie-riding was supported in some locations to reduce run-off and retain moisture. ASARECA facilitated a Land Care Ordinance in one district paving the way for a landscape approach to land degradation problems. Some 570 ha of afforestation are reported to have been supported in fragile areas.

Overall, there is limited direct evidence on the extent to which the project actually impacted economic growth, poverty, hunger, and the sustainable use of resources on any scale during the period of the project although it may have laid some important groundwork. However, given the language of the objective this review accepts that, on
balance, the project did promote growth, reduced poverty and the eradication of hunger, although it probably achieved it on a modest scale.

5. Efficiency:
   Rated Substantial. The 2014 Impact Evaluation (IE) carried out a Cost Benefit analysis of the change in sampled programs between 2008 and 2012 using project beneficiaries and a non-project control group. This found a net gain of US$272 per household per annum. Extrapolated across the total of some 270,000 beneficiaries, assuming the measured 64% adoption rate, suggests a total net benefit annually of US$ 74 million. Based on the calculations reported in the ICR, taking the full ASARECA program costs of US$ 90 million the net benefits indicate a quick payback. Sensitivity estimates in the ICR suggest that the overall net benefits were reasonably robust to alternative assumptions. Without reworking the Cost Benefit analysis by going back to the working data in the IE we have not been able to calculate an ERR equivalent to the payback period analysis but the C/B finding suggests that it would be quite high even. However, there are questions about whether the non-beneficiary decline in income over the four year period of US$166 is plausible.

The grant program and the associated approval processes followed were the main means of ensuring effective and efficient use of the multi-donor trust funds. While, the outputs and outcomes of the research were substantial in terms of increased productivity and economic benefits, there is limited direct evidence from individual programs to show that these were produced at least cost. However, generally experience has been that for research with shorter term objectives focused mainly on food crops with quick impact, as recommended by IFPRI, competitive grants are more resource effective than support to pieces of large national programs with similar objectives.

In terms of overall program efficiency, ASARECA operating costs at 25% to 28% are high although ASARECA is an institution that places considerable emphasis on studies and support to the users of the grant funds and much of the benefits from that expenditure is likely to have benefits above and beyond the surveyed farm benefits from the individual competitive grants. For example, benefits from policy change such as commodity standards, livestock disease coordination, and sharing of genetic resources can be expected to have benefits additional to those arising from the individual grant programs and to have benefits outside the beneficiary population sampled since most policy and regulation changes are likely to have sector wide impacts.

On balance, despite some cost effectiveness and methodological questions, Efficiency is rated Substantial on the basis of the cost benefit analysis, the safety margin suggested by the sensitivity analysis, and the fact that some of ASARECA's costs have potential benefits that are uncounted in the analysis, in particular policy progress in some of the many policy areas studied.

6. Outcome:
   The Multi-Donor Trust Fund was highly relevant, agricultural technology and the coordination between countries was high on the members' and the Bank's agenda. Relevance of design was modest and somewhat unclear partly because of differences between the legal document objectives and the technical document PDO. The design did not focus sufficiently on regional collective action. One element of the objective statement was modestly achieved and one substantially achieved, the program made quite important contributions in policy analysis. On balance, efficiency is rated substantial, but there are some concerns about cost effectiveness given the high overheads and the economic analysis methodology that suggests quite substantial declines in non-beneficiary incomes over four years.

   a. Outcome Rating: Moderately Satisfactory

7. Rationale for Risk to Development Outcome Rating:
   The ICR reports that the project strengthened ASARECA's capacity as a regional platform to support research programs. There is some support for this from a USAID study. ASARECA has a partnership with other donors and projects to strengthen the weaker national systems especially in Rwanda, Burundi and Sudan. The ICR (p. 19)
reports that even the stronger national systems have some deficiencies that could limit innovation and dissemination. There is a proposal to carry out a capacity assessment of all the national agricultural research systems (NARS).

However, there are financial sustainability concerns that ASARECA may have limited core funding to support its operations over the next phase in Operational Plan II. There is some risk that member countries will be unable to increase their contributions or even perhaps match past contributions. To mitigate these concerns ASARECA has a resource mobilization plan in place but even the new proposed fees of US$ 10,000 per member country are very small relative to ASARECA's overall budget (US$96 million for OP I over five years)

The ICR reports (p. 20) that the environmental risks have been tackled with training, improved management and monitoring of sub-projects.

| Risk to Development Outcome Rating | Moderate |

8. Assessment of Bank Performance:

a. Quality at entry:
The project was prepared and appraised by a strong team. ASARECA was an established institution with M&E systems and processes already in place. There was a linkage between the design and the objectives but, as noted earlier, somewhat different emphasis in the technical and legal documents between technology and collective action. The design team built on the considerable earlier experience of ASARECA itself and, in a number of cases, the experience of agricultural research projects at country level, for example the Bank-supported Kenya and Tanzania programs in research and extension.

Quality-at-Entry Rating: Satisfactory

b. Quality of supervision:
As with appraisal, substantial skills were applied to supervision along with collaboration with donors. A quick review of a few of the supervision reports indicates thorough and candid assessments of achievements and emerging problems.

The multi-donor trust fund structure enabled support from a range of donors without multiple reporting requirements and different procurement rules. This made for easier supervision for all parties.

The ICR notes that the supervision teams addressed emerging problems with procurement, safeguard compliance, especially environmental safeguards, and were flexible enough to propose sound adjustments to indicators, in particular to improve gender reporting.

Quality of Supervision Rating: Satisfactory

Overall Bank Performance Rating: Satisfactory

9. Assessment of Borrower Performance:

a. Government Performance:
Government in this case is defined for this review as the ASARECA host government, Uganda, and all the member governments.

The government of Uganda provided space and land for the ASARECA office construction and the ICR notes (p.21) that GOU also gave a level of diplomatic status to aid in recruitment.

Member government performance has been variable on contributions with some members not paying fully or regularly. Moreover the agreed contribution is small. However, there was generally strong support for the role of ASARECA and for the trust fund program.

Member governments contributed to the guidance of ASARECA in terms of strategy and budget.
b. Implementing Agency Performance:

The implementing agency was ASARECA. It performed strongly in managing a complex program requiring good supervision in both selection and management of competitive grants. As noted by the ICR (p. 22), ASARECA “put in place structures, systems and processes to support the functioning of the Secretariat and sub-projects.” ASARECA was also able to enhance its M&E and capacity building.

ASARECA is well aware of the potential trade-offs between high quality research investment for Eastern and Central Africa and support to laggard national systems with needs for capacity enhancement. ASARECA gives evidence of strong strategic thinking, for example, under the next operational plan a degree of “affirmative action” is planned to bring on the weaker national systems and there is thinking about how to address cost reduction.

High overhead costs of 25% to 28% are an issue for donors. Whether this is excessive depends somewhat on how knowledge is valued and it is arguable that the knowledge and coordination role of ASARECA within a regional interlinked system is unique and irreplaceable. It would be a mistake to cut too much in the areas of regional policy work and collective action. Nevertheless, there appears to be room for economies.

Implementing Agency Performance Rating: Satisfactory

Overall Borrower Performance Rating: Satisfactory

10. M&E Design, Implementation, & Utilization:

a. M&E Design:

The ASARECA M&E system was already operating. The ICR argues (p. 6) that the Results Framework was well designed and consistent with the objectives and priorities of the first ASARECA operational plan. The KPIs were largely consistent with the objectives and there was linkage between the indicators and the design. There was some weakness in the lack of indicators focused on collaboration between members.

b. M&E Implementation:

The ICR argues that the M&E system improved over the period of the project. The system is available online for use by national M&E teams. There was some delay when it took eight months to fill the position in the M&E Unit.

The M&E unit trained about 326 people in impact assessment, data quality, and results-based M&E. Procedures and tools were introduced.

There was considerable focus on recording inputs arguably at the expense of evaluating the project's stated objectives in terms of collective action.

c. M&E Utilization:

The M&E findings were used at the monitoring level to manage programs approved and to catch problems as they arose. It was used to track the disbursements of the competitive grant programs.

The recent impact assessment provides a baseline for the OP II.

M&E Quality Rating: Substantial

11. Other Issues

a. Safeguards:

The MDTF was classified as Environmental Category B. The following policies were triggered: (i) Environmental Assessment; (ii) Forests; (iii) Pest Management. An Environmental and Social Management Framework was prepared by ASARECA. Environmental issues within the grant proposals were identified in each grant, evaluated at the time of approval and monitored by the M&E Unit.
b. Fiduciary Compliance:
The ICR reports performance in this area to be satisfactory. The MDTF was in full compliance with the requirements providing timely and acceptable audits. There were no qualified audits. A review at the sub-grant level indicated (ICR p. 8) that there had been an improvement in the financial management capacity of most participating institutions. There were concerns in 2007 with 22 research sub-projects where the administration of funds was an issue. The project team reports that this was addressed.

Procurement had a number of issues found by the Secretariat including incomplete procurement files, non-compliance in some cases, and conflict of interest. At one point the rating of procurement was downgraded to only moderately satisfactory but action was taken including the recruitment of another procurement officer.

There remains one incomplete procurement activity, the completion of the ASARECA HQ. Recent changes have scaled back the building size. This will proceed with continued support from MDTF under the next OP II phase.

A post-procurement review found "general compliance" (ICR p. 8) but it was reported that sub-grant institutions needed more support.

c. Unintended Impacts (positive or negative):

d. Other:

<table>
<thead>
<tr>
<th>12. Ratings:</th>
<th>ICR</th>
<th>IEG Review</th>
<th>Reason for Disagreement/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome:</strong></td>
<td>Satisfactory</td>
<td>Moderately Satisfactory</td>
<td>Relevance of design is rated modest because of modest focus on the regional collective action objective. The first element of the achievement of objectives, also on collective action, is rated modest.</td>
</tr>
<tr>
<td><strong>Risk to Development Outcome:</strong></td>
<td>Negligible to Low</td>
<td>Moderate</td>
<td>The very low member contributions and potential for variable donor support suggests more than low risk for longer-term development outcome.</td>
</tr>
<tr>
<td><strong>Bank Performance:</strong></td>
<td>Satisfactory</td>
<td>Satisfactory</td>
<td></td>
</tr>
<tr>
<td><strong>Borrower Performance:</strong></td>
<td>Satisfactory</td>
<td>Satisfactory</td>
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<tr>
<td><strong>Quality of ICR:</strong></td>
<td>Satisfactory</td>
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</table>

**NOTES:**
- When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.
- The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate.

13. Lessons:
The ICR offers six lessons of which the following three, with some adjustment of language, are the most pertinent:

1. *Agricultural research and development requires sustained effort that is unsuited to single project support of a typical project length.* In this case, it was clearly necessary to continue into the second phase beyond the original five years through the additional financing and the extension of the multi-donor trust fund and the program should have been planned that way.
2. Research programs should build on synergies and break the silo focus. There should be a strong focus on interaction between program-based disciplines and between countries. In this case, there could have been more attention to the collective action element of the objectives. This is being addressed under the second phase.

3. Sustained funding sources are essential for sustained research and should be sought from multiple sources including country participants and governments, the private sector, institutions, farmer groups and own income. In this case, a Resource Mobilization Action Plan is being implemented under the next phase.

<table>
<thead>
<tr>
<th>14. Assessment Recommended?</th>
<th>Yes ☺ No ☐</th>
</tr>
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<tbody>
<tr>
<td>Why? Coordination of agricultural research is a high priority for food security and growth in Africa. The competitive grant model used here and the sub-regional coordination model may have lessons elsewhere. While this appears to have been quite a strong program in some respects there are uncertainties in terms of impact and sustainability that would benefit from a further assessment through a PPAR.</td>
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</table>

15. Comments on Quality of ICR:

The ICR is thorough and offers an array of evidence. The main weakness is that it did not sufficiently address the extent to which the objective of collective action was pursued or achieved. This was partly because it focused on the Technical Document statement of objectives and the narrower technology generation and adoption specification rather than the more process-focused legal agreement version. The legal agreement version reflected more accurately the ASARECA remit. The data sheet was incomplete. It contained no results matrix.

Quality of ICR Rating: Satisfactory