Financial Guidelines Series

No. 1 CGIAR Financial Management (Revised February 2007)
No. 2 CGIAR Accounting Policies and Reporting Practices Manual (Revised February 2006)
No. 3 CGIAR Auditing Guidelines Manual (Revised 2001)
No. 4 CGIAR Resource Allocation: Developing and Financing the CGIAR Research Agenda (Revised January 2008)
No. 5 CGIAR Cost Allocation Guidelines (December 2008)
No. 6 CGIAR Procurement of Goods, Works and Services (April 2008)

These policy guidelines have been prepared by the CGIAR Secretariat to assist the International Agricultural Research Centers supported by the Consultative Group on International Agricultural Research. Each IARC is encouraged to draw up its own policies and procedures manuals for its internal use.

Questions or suggestions about these guidelines should be sent to:

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Section 1 - Objectives and Scope

This Financial Guideline “CGIAR Cost Allocations Guideline” replaces the previous Guideline in regard to this area which was Number 5 – “CGIAR Indirect Cost Allocations Guideline”, published in August 2001. This new Guideline is not only an update of the earlier version, but also is broader in its scope.

The prime objective is to provide a harmonised framework from which each Center can have a good understanding of its true costs, and which ensures that all costs required to carry out a project are properly charged to that project. In this Guideline, the allocation of costs to projects is based on the activities they require, and the approach draws heavily upon activity-based costing (ABC) principles. The Guideline follows the following principles regarding allocation of costs:

- Assignable: If a project directly benefits from an item of cost, such costs should be directly assigned to the project.
- Allocable: Apart from the costs that are directly assigned, all projects should bear a fair share of costs of the organization’s “services” and "institutional expenses". Such costs should be allocated to the projects using an appropriate allocation method.
- Reasonable: Any cost charged to a project should be reasonable, meaning that it is necessary for the performance of the project and that a prudent person in similar circumstances shall incur the same.

The CGIAR has long encouraged a policy of full cost recovery for both direct and indirect costs in regard to research projects funded by restricted grants. Accordingly, project proposals and financial reporting need to be based on accurate and comprehensive cost information to satisfy stringent donor requirements. The adoption of an approach using ABC principles will help Centers obtain a more accurate picture of the total cost of each activity/project, which will assist budgeting, financial management and resource allocation. Some Centers are already moving towards ABC, and this guideline should help ensure that ABC principles and practices are harmonised within the CGIAR. This should also help to create a common understanding between Centers and donors, especially those donors who provide funding for specific activities or projects (restricted funding), of the true costs of projects.

ABC will require a significant implementation effort for many Centers. Management will need to provide commitment and support, and staff will need education and training so that they buy-in to the ABC approach. It has to be stressed that implementation of ABC is a process, and it will take some time for the ABC mechanisms and approaches to become part of the operational and financial culture. Implementation will require changes in several aspects of a Center’s operations:

- Accounting systems and processes will need to be modified to ensure that data is recorded and reported in line with the needs of ABC.
- Budgeting policies and procedures will be changed in many aspects. Accurate budgets are a pre-requisite for ABC, so much attention needs to be placed on management of budgets, and this must be ongoing.
- More transparency of costs will require increased financial awareness within the organisation, at both the macro- and micro-levels. Internal financial reporting will need to respond to higher expectations from managers.
- Financial reporting to donors will be different in that some costs will now appear as specific charges against a project where before they were not included.
The guideline is intended to leave flexibility for individual Centers to determine their costing structure and tailor the cost drivers to suit their individual circumstances. Nevertheless, a supplemental guide is attached to assist with initial implementation. Any later versions of the guideline should not need to go into this level of detail.

Since 2001, the annual Financial Statements of the Centers have included a summary of the computation of indirect costs, based on the previous guideline. Mandatory adoption of this guideline will be from 2010, but an early adoption in 2009 is encouraged. Hence, from 2010 the computation will be based on this guideline. However, when the Integrated Reform Proposal for the “new CGIAR” is endorsed at AGM08, the responsibility for developing, promoting and adopting fiduciary standards at the Center level will rest with the “Consortium”, hence the timeline for adoption may well be revised.

Adoption of this Guideline will also impact on those sections of FG2 “CGIAR Accounting Policies and Reporting Practices Manual” which relate to presentation of information in the relevant areas of the annual financial statements.

Section 2 - Background

The CGIAR Centers have much commonality in their business models – they have the same broad goals, their grant income is divided between unrestricted and restricted funding, they are project-based, and often their legal, operational and cost structures have many similarities.

CGIAR Centers have experienced the trend over the last several years for funding to shift from Unrestricted to Restricted. This is not unique for the CGIAR, as governments and other funding bodies across the world are wanting to target their aid and development funding in all spheres. However, even at present levels of unrestricted funding, there is a specific challenge facing the Centers – how to fund operational and institutional costs. While donor agreements for restricted projects usually make some allowance for “overhead” recovery, the amount is often inadequate to cover the actual indirect costs that are incurred. Closer examination of the nature of many costs will reveal that certain costs traditionally regarded as “indirect” should be more appropriately classified as “direct”, and ABC provides a principled approach for determining the proper treatment of operating costs.

ABC is a costing methodology used to trace background costs directly to end products, which for the CGIAR Centers means research projects. It was pioneered by Robin Cooper, Robert Kaplan, and H. Thomas Johnson in academic work between 1988 and 1990. In its early years, it was regarded as “innovative” but is now widely accepted, and has been actively supported by many organisations including “The Society for Advancement of Management”.

ABC has long been embraced by manufacturing and service firms as an integral element of accounting and control systems. It is also very appropriate for non-commercial organisations which have distinct outputs. The project structures and management systems already in place at the Centers provide a very good fit with ABC. “Universities, government agencies, and other non-profit and public sector organisations can improve their financial management by adopting ABC …………” was the conclusion of a research report funded by the PricewaterhouseCoopers Endowment for the Business of Government in 2000.
This Guideline, with its ABC philosophy and framework, is intended to enhance financial management in the sense that Centers will be encouraged to see themselves as operating a business, where revenue and expenditure need to be matched, not only at institutional level but also at the level of individual activities.

When a Center has systems in place that provide a good understanding of its cost structure, this provides many benefits in general financial management:

- Increased understanding among staff about the full cost of their projects/activities.
- Improved knowledge of costs and budgets should lead to better decision-making, and encourage accountability.
- More transparent and accurate costing in projects will reveal which projects are fully funded and which are not. Of course, it is for Centers to decide how they finance projects, and they may choose to finance or co-finance projects for strategic reasons, but should do so on the basis of a solid understanding of the trade-offs involved.
- Improved cost allocations in projects will allow a more informed discussion of the real costs of research between Centers and donors when negotiating research proposals.
- Improved cost/benefit analysis and better strategic decision-making – using information from cost accounting sources provides better criteria, for example in deciding whether to proceed with a proposed project. This can be a complex area – while some projects may not be fully funded (and therefore appearing not to assist the organisation from a financial viewpoint), they may nevertheless be making a contribution to the recovery of a Center’s fixed costs. Strengthened financial culture, as financial awareness is reinforced. Better knowledge of the “true” costs of activities identifies which areas need attention, provides early warning of impending financial problems and helps discover opportunities for cost improvement.
- As a tool that gives better understanding of organisational and project costs, ABC helps support strategic decisions in areas such as pricing of projects, outsourcing, and identification of and measurement of process improvement initiatives.

**Section 3 - Activity-based Costing (ABC): Description**

ABC is a methodology for assigning costs to projects based on the services (= activities) they require. The end product of a CGIAR Center is research, so activity-based costing requires a sub-system within the accounting framework to charge all costs to those end products (= projects). In reality, the concept of allocating all costs to projects is not new for the CGIAR – this approach is also implicit in the activity-based budgeting (ABB), the counterpart of ABC, which is applied in the preparation of CGIAR Center Medium Term Plans.

The traditional cost accounting approach (including that of the earlier CGIAR guidelines) was to add a broad percentage of expenses onto direct costs to allow for the indirect costs. However, this is rather simplistic as one project might consume more services than another, even though the direct costs might be the same. The additional costs would not be recognized when the same broad “on-cost” percentage is added to all projects. Consequently, when multiple projects share common costs, there is the risk with using broad percentages for “on-costs” that one project may be subsidizing another. ABC seeks to identify cause and effect relationships to objectively and fairly assign costs as direct costs where that is possible. Once the costs of the activity (service) have been identified, those costs are assigned to projects as direct cost to the extent that the project utilises that activity.
Even with ABC, some operating costs are difficult or impractical to assign to projects, for example the costs of the Board of Trustees. These costs are called Institutional Costs, and are not assigned to projects as a service because there is no meaningful method, as there is no direct correlation between the cost and the benefit to projects. This group of costs must nevertheless be absorbed by contributions from the projects, as a percentage of expenditure, but under ABC they should be a relatively small percentage of the total costs of any project.

Centers’ operations can be divided into 3 broad functional groupings:
- Research
- Services
- Institutional

An indicative list of activities that may be included in each function is set out in the next section. Costs for each of the 3 functions may be processed in different ways:

1 - Research costs will be charged directly to research projects, through the usual accounting procedures, and require no further allocation action. The underlying philosophy of ABC is that, wherever possible, costs should be directly charged to projects rather than pass through an allocation process. Thus, Centers should be pro-active in identifying direct project expenditure where practicable. Note that “project” is a broad term in this context – it may relate to a single donor-funded agreement, a project with funding by several donor grants, or a larger MTP Project.

2 - Services for a CGIAR Center include research support, farming operations, facilities (or occupancy costs) and general services. All categories of service are treated in the same manner - costs are processed and initially charged to the individual service (cost center) providing that service. These costs for providing the services will then be allocated to projects and other service centers based on the underlying driver of the cost for each service, so that each research project and service center is charged for the costs of all services it uses. The selection of an appropriate driver should be based on the activity that primarily causes the service center expenses to be incurred.

The accumulation of the costs of the services (= activities) in cost pools, and the usage of the appropriate drivers to make the chargebacks for these services are the key components of ABC. The basic underlying principle is that the costs of services should be fully recharged, in most cases to research activities but also to other service centers or institutional cost centers. Note that those costs allocated to a project as a chargeback are considered as part of the direct costs of the project.

3 - Institutional Costs will be allocated as a percentage of project expenditure. These costs get applied to projects after all other costs have been allocated.

Some points should be noted. First, within the ABC framework, Institutional cost centers should be charged for services they utilise, and services can be charged for other services. Second, if the costs of a service cannot be fully recovered, then the shortfall becomes part of Institutional Costs. And third, since personnel expenses represent the largest single component of expenses in CGIAR Centers, special attention must be given to those costs so that they are attributed accurately to projects.
The end result of the above structure and the application of ABC in a CGIAR Center is that all costs will be charged or allocated to projects within the framework of the general accounting system. An overview of a typical application of ABC is set out in Appendix B.
Section 4 – Organisational Cost Structure

ABC requires all functions within an organisation to be clearly defined within the cost structure, and the typical activities required by a CGIAR Center are set out in this section. Note that the structure used for activity-based costing is distinct from the usual organisational structure set out according to individual responsibilities.

Research activities are managed through a project structure, and this structure may include sub-projects for distinct components. Projects are aggregated upwards into the Center’s Programs and Medium Term Plan Projects, but the building-block of the cost accounting structure is the project. The project leader is also the budget manager so has financial responsibility. With ABC, the project leaders will have to adapt to a new scenario of project costs: certain costs previously incorporated within indirect costs may now appear, in the form of separate line items, as direct costs in financial reports. Budget proposals and financial reports to donors will need to reflect the new structure.

Set out below is an indicative list of research activities:
- Projects, with both restricted and unrestricted funding
- The costs of Program Directors and their offices
- Genebanks
- Collaborations

Services vary from center to center according to their operations and structure, but the costs of all services should be allocable to research projects. Some operational units are very closely linked to the research activities and the costs of those services may be considered as Research Support. Some services are for facilities (typically office accommodation, IT and telephones), and represent the costs of occupancy. Facility costs are unavoidable, and will follow the relevant staff member around, being charged to the projects, etc that he/she is working on. Other services are more elective in their usage, and their costs are usually levied according to usage.

Services would typically include:
- Office of Director of Research (quality control, monitoring and evaluation, impact assessment
- Outreach
- Library
- Resource Mobilisation Office
- Publications/Public Awareness
- Capacity building
- Project management information
- Laboratory
- Farm
- Greenhouse/Glasshouse/Plant growth facilities
- Host country liaison office
- Intellectual Property Management office
- Physical facilities (includes headquarters buildings and grounds maintenance, utilities, cleaning, security, etc)
- Information Technology Department
Institutional costs are an indirect cost because they cannot be directly attributed to research projects. These are often also referred to as “management costs” or “administrative costs” or “governance and central support functions”, and sometimes the term “overhead” is used as a convenient shorthand.

The costs of governance and central support functions are the only indirect costs in the ABC framework because they cannot be directly attributed to research or project costs. These costs are attributed to projects as a percentage of the value on each item of project expenditure. They would typically include:

- Board of Trustees
- Office of Director General
- Corporate Services Director
- Finance Department
- Human Resources Department
- Internal Audit
- Legal Office
- Corporate Communications
- Costs of EPMRs (External Program and Management Reviews)

Charging governance costs as a fixed percentage of the costs of projects usually results in an equitable distribution. However, a lesser percentage may be more appropriate in relation to funds managed by Centers on behalf of third parties or collaborators, for which the Center’s responsibilities are clearly very limited.

Section 5 – Services and Cost Drivers and Chargebacks

“Services” are the central plank of this guideline, as it is in the services that more accurate costing information will be generated, leading to more accurate project costings. So a crucial step in the implementation is to identify the services (activities) which are to be included. Each service has its own characteristics, and many will be common to all centers.

Cost Drivers are the measurement units (the basis of the cost) for allocating the cost of each service. The drivers must be logical and understandable to the users, so it is essential that the selection of cost drivers for each service is appropriate.

Chargebacks are the fees levied for providing the service. The tariffs must be set at reasonable and acceptable levels, their method of computation should be understood by service users, and the rates should also take into consideration market rates for similar services when a comparison is available.
An ABC-based approach should be an agent of change, as the services will come to be regarded as business units, components of the larger business unit that is the center itself. The managers should be running a cost pool with a zero budget, as their challenge will be to ensure that the total chargeback covers the total costs of the cost center. In other words, the goal will be for the service center chargebacks to recover all the service center’s costs. One outcome of the implementation of ABC and the analysis of the service unit costs should be that it will encourage a more rigorous assessment of the in-house services. It may encourage centers to consider outsourcing where appropriate, or encourage the sharing of services with other centers. It should also compel service centers to be efficient in their in-house services and provide a cost-effective service delivery to their clients.

One characteristic of the CGIAR is that, for their regional activities, many of the centers rent offices and use services provided by other centers. ABC provides the host center with a transparent charging mechanism for these situations.

How chargebacks are made is a sensitive area, because the customers of the services will want certainty that the basis of all charges is fair and reasonable, and that they are getting value for money. Successful adoption of ABC requires buy-in from the customers, so it is important to create the right climate. Some important practical issues to deal with:

- It is important that each chargeback is worthwhile, i.e. the benefit must exceed the cost of computing and recovering the chargeback amounts. And too many chargebacks can become cumbersome in practice.
- Any elements of a service which cannot be fully recovered from its chargebacks must be absorbed as a governance cost. A consideration here is that some centers operating in areas where there is limited public provision of services (e.g., fire station, taxis) will need to have their own capacity, even if this is often under-utilized.
- There should be some consistency across the selection of drivers. When “usage” is not easily measured, headcount may be appropriate in some cases.
- The charges should be predictable – nobody like surprises.
- While ABC should be a stable system, there should always be some flexibility. Tariffs, for example, should be reviewed regularly, but drivers should not be changed unless there is a strong reason.

As an illustrative example within the ABC framework, consider a center travel office. Assume it costs $100,000 pa to run, and it issues 2,000 tickets p.a. A suggested driver would be the issuance of a ticket, and the tariff would then be $50 per ticket. The basis is logical, and the price of the service is realistic (comparable to what a commercial travel agent may charge), so the chargeback would seem reasonable and acceptable.

The service is the travel office, the cost driver is the issuance of a ticket, and the chargeback is $50 per ticket.

Set out in the Implementation Guide are some suggestions of how chargebacks could be analyzed in regard to various possible services.
Section 6 - Personnel Costs

These make up nearly 50% of the cost of most CGIAR centers, and require special attention for that reason alone. It is for each center to devise its own methodology for calculating the costs of personnel either by individual or by groupings, and then charging those costs to the various projects and activities.

The allocation of personnel time and costs has much significance for ABC as the costs of some services may follow the personnel costs. In other words, where personnel spend their time is often a very accurate driver for other costs. Occupancy costs, for example, should ordinarily be allocated to the same destinations as the personnel cost allocations. Time allocations may also be a suitable driver for costs such as the cafeteria. It can also be the case that some costs can be charged using the time allocations of a group of staff, e.g. some research support costs could be charged based on the time of researchers.

Centers which already have a comprehensive time registration system will find it an easier task also to have other costs attached to personnel costs in these mechanisms. The mechanisms also should provide an audit trail so that reports to donors can be substantiated.

Section 7 – Resource Allocations and Budgets

Adoption of ABC will cause a change in how all budgets are structured and treated using the component functions:

- Research
- Services
- Institutional Functions

All the costs of providing services and Institutional Functions should be fully allocated to projects, and the budget process should be based on that premise. Where some costs of services cannot be allocated, the unallocated component becomes part of the costs of the Institutional Functions. The underlying thrust of ABC is to put the emphasis on projects, and budgets therefore should aim to have as many costs as possible directly charged to projects.

At the micro-level, ABC will create a direct financial relationship between many activities and their users which may not have existed before. This will have a major impact on the budgets of both the activities and their customers. It needs to be remembered that the costs of services will also now need to bear the costs of other services, e.g. IT dept will be paying for the floor space it occupies.

Successful implementation of ABC will depend on accurate forecasts of the costs of the various services, and their recoveries from projects. In the absence of historical data, it can be expected that some figures in the initial budget will be based on estimates, but in subsequent periods the budgeting process will have more accurate historical data to work with. At any rate, ABC is a flexible system, so that changes to tariffs can be expected with the passage of time.

The extent of changes required in the budgeting processes and culture of individual centers will vary from case to case. But certainly much attention will need to be given to the costs and recoveries of all services – if that was not the case before in a center, then extra effort will be
needed. ABC encourages services to be regarded as business units, where a key performance indicator is their cost/benefit analysis.

The ongoing success of an ABC system will always be dependent on realistic budgets and strong budget management. A fundament of ABC is that every service center will have a “zero” budget, and that should encourage the development of strong budget cultures in centers.

Section 8 – Donors

Funding of the CGIAR Centers comes from donors, who provide unrestricted and/or restricted grants. Restricted funds will normally include an amount for indirect costs, but the percentages allowed for this in project budgets are usually lower than the current audited rates for many centers, as most CGIAR donors have fixed norms in this area and these cover a wide range. There is also a trend for unrestricted funding to decline, as donors seek to target their funding to achieve more specific outcomes, so it becomes even more necessary to achieve full cost recovery for all costs for research projects which are funded by restricted grants.

Funding of individual projects is usually accompanied by explicit budgets and a requirement for detailed financial reporting and accounting. Implementation of ABC will result in the costs of the various services being directly charged to project costs as separate line items in such reports, with the following results:

- Donors can be provided with more information, because of the more transparent costings in projects. The expanded financial presentation should be included in all new project budget proposals.
- Centers should ensure that donors are fully informed of the changes in their costings and financial reporting. This should help to create a better understanding between centers and donors.

ABC will have a key role in the long term stability of the CGIAR centers, but only if the donor community is supportive, and accepts the ABC approach in project agreements. The application of ABC to research projects is standard, regardless of the funding source of individual projects. Nevertheless, donors will require reassurance regarding the legitimacy and transparency of costs, so it is important that costs charged to projects consistently adhere to the principles (Assignable, Allocable, and Reasonable) set out in the opening section.
Section 9 - Risk Management

Implementation of ABC is aimed to mitigate the financial risks associated with inadequate funding of the research efforts to achieve the stated outputs in agreed plans and grant contracts. As part of the implementation process, centers must adopt risk management strategies, covering such matters as:

- Internal buy-in within the center for implementation
- Adequacy of human resources, from within the center or in the form of outside expertise contracted on a consultancy basis, to manage the initial implementation and ongoing maintenance phases of an ABC effort
- Sufficiency of support of accounting systems to support implementation
- Response to the information on efficiency of services which may be highlighted from an ABC implementation, including the decision to retain services in-house or seek to outsource them
- The appropriate balance between the level of detail to which costs will be tracked and the transaction costs of such tracking
- Correct tariff calculations

To manage such risks, an ABC implementation should be managed on project lines, with appropriate attention to the analysis of the impact and likelihood of the risks to successful implementation of the project.

Section 10 – Annual Financial Statements

IAS require that the effect of any change in Accounting Policy be disclosed in the annual Financial Statements. While implementation of ABC will bring about many changes within a center, these changes are internal, so do not require disclosure as a change of policy.

CGIAR Financial Guideline No 2 has sections relating to the reporting of indirect costs which will require modification so that the FS will properly reflect the new functional classifications as set out in Section 4.

A summary of the computation of indirect cost based on current year data should be included in the audited financial statements. From 2009, this computation should be based on ABC principles. The summary may be included in the notes or as a separate schedule, and should take the following form:

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<thead>
<tr>
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<th>Current Year</th>
<th>Prior Year</th>
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<tbody>
<tr>
<td>Research Expenses (inc services)</td>
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<td>Xxx</td>
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<tr>
<td>Institutional Costs</td>
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<td>Xxx</td>
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<tr>
<td>Total Costs</td>
<td>Xxx</td>
<td>Xxx</td>
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<td>Percentage Indirect/Direct</td>
<td>X%</td>
<td>X%</td>
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</table>
The Financial Statements also include a summary of the natural cost classification for each center, as follows:

- Personnel Costs
- Supplies and Services
- Travel
- Collaborative Costs
- Depreciation

These 5 groups are fairly straightforward and of course are a summary of more detailed expense categories. Implementation of ABC will not impact the totals for these groups, but will result in some re-allocation between restricted and unrestricted amounts.

Section 11 - Conclusion
Implementation of an ABC approach under this Guideline is not a one-off exercise, and the principles need to become part of the ongoing financial culture. In that context, a center’s budgeting policies and practices need to be fully integrated with the Cost Allocation Guideline. Indeed, budgeting is the other side of the same coin.

Initial implementation of an activity-based costing scheme requires education and training at different levels of the organisation, and there may need to be changes in procedures and within accounting systems. But while an extra effort is needed in the early stages, the principles and practices of ABC need to become embedded and then maintained as part of the organisational culture. For this to happen, requires management involvement will be necessary on an ongoing basis.

The financial performance of an organisation is essential for its success, and ABC should be a dynamic force for good management at both the macro- and micro-levels. Some organisations use ABC as a basis for a balanced scorecard, and Appendix E provides a self-assessment tool so that centers can evaluate the usefulness of ABC in their own situations.
Appendices

Appendix A - Terminology and Definitions

Management Accounting is concerned with the provision of financial information to people within the organization to help them make better decisions.

Cost Accounting is a component of Management Accounting, but is narrower in that it deals primarily with costing information, and is usually more detailed.

Financial Accounting is concerned with the provision of financial information to external parties outside the organization.

Activity-based Costing (ABC) is a methodology for assigning costs to projects based on the activities they require.

Service Costing Model is the sub-system within the accounting framework by which costs are pooled and allocated to projects by chargeback mechanisms.

Cost Allocation is the procedure where costs are divided or split on a reasonable basis, so the correct charge is made to the end user.

Natural cost classification describes what a cost is. Examples are travel costs, audit fees, salary costs: often called cost categories.

Cost center is the term used in this Guideline for a cost home for institutional costs. Note that this definition is a very specific usage of the term for the purpose of clarity in the Guideline, and the term “cost center” is often used elsewhere in a broader accounting sense.

Cost pool is a grouping of costs in a single cost home, with the intent to recharge them to other cost homes. An illustrative example is IT department, where all costs may be accumulated for all IT costs of an organisation, to be later charged to users.

Cost driver refers to the base used for recharging of costs from a cost pool to end users. The driver is the cause of the incurrence of cost pool expenses. An IT department may base its charge-out on headcount of users, or actual time “logged on”. The main criteria for choosing cost drivers are logic and clarity, so that the charge is equitable and clear for users.

Direct Costs are those that can either be identified with a particular activity or that can be directly assigned among various activities relatively easily and with a high degree of accuracy.

Institutional Costs are those costs which are not directly attributable to projects. They are also often referred to as “overheads”, “indirects”, or “governance costs”. While institutional costs are not directly attributable, they must nevertheless be charged to projects. Usual basis is as a percentage of total expenditure on project direct (research and services) costs.
“Overhead Rate” arises from the calculation of Indirect Costs as a percentage of Direct Costs. This is a very loose term and the calculation can be very subjective, but it has considerable significance as many donors have fixed limits.

Variable Costs are those costs which vary in direct proportion to the volume of activity, e.g. consultancies. A proviso – over a sufficiently long period of several years, virtually all costs are variable.

Fixed Costs remain constant for a specified time period, e.g. depreciation, salaries. The shorter the time period, the greater chance that a particular cost will be fixed.

Marginal Costs (also called differential or incremental costs) are the additional costs arising from undertaking a particular activity.

Variance has several possible meanings. The usual one is the difference between actual figures and budget figures. In the context of cost accounting, there is a specific usage for the difference between estimated costs and actual costs for a product or service. An example would be the IT cost pool, where the costs are intended to be covered by an agreed charge to users. If the costs are not fully recovered, this is a negative variance.

Project is ordinarily used here to denote an activity covered by an agreement with a donor. In some cases though, a project will not have a donor. Projects may vary greatly in magnitude, and are the final destination of the center’s operation costs - they are the building-blocks of the Cost Accounting structure. Note that the accounting system will have a mechanism to identify whether particular costs are recoverable from the donor or not.

Chart of Accounts is the numbering system used by an organisation to identify general ledger accounts and projects.

Chargeback is the internal transfer of a cost/service from a costpool to a user.

Tariff is a charge-out rate (for an individual) or the price/fee (for a service).

Zero-budgeting is the concept that a service center recharges all its costs, hence a “zero budget”.
### Appendix C – Self-assessment Tool

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<tr>
<th>Service</th>
<th>Cost p.a. before chargebacks</th>
<th>Chargebacks</th>
<th>Unchargeable Costs</th>
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<tbody>
<tr>
<td>Office of Director of Research</td>
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<td>Partnerships/Outreach</td>
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<td>Library</td>
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<td>Donor/Funding Office</td>
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<td>Project management information</td>
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<td>Greenhouse/Glasshouse</td>
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<td>Host country liaison Office</td>
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<td>Intellectual Property Management</td>
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<td>Offices and Headquarters facility</td>
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<td>IT Department</td>
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<td>Telephone/Communications</td>
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<td>Procurement</td>
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<td>Transportation services</td>
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<td>Housing</td>
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<td>Cafeteria</td>
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<td>Travel Office</td>
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<td><strong>Totals</strong></td>
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This schedule should be adapted for each center. Unchargeable costs here represents those costs for each service which cannot be charged to users - they become part of Institutional costs. Additional information could also be included regarding the destinations of the chargebacks, eg Restricted Projects, Unrestricted Projects, Other Services.
CGIAR Cost Allocation Guideline

Supplement - Implementation Guide

This document is intended to provide assistance when planning for implementation of ABC. It is a supplement to the Guideline, and will be updated to take into account the lessons learned by individual centers as they proceed with implementation.

General
Implementation of ABC requires the following steps:
1. Identify services (activities) which are to be included in an ABC-based approach. Can also be called a Service Costing approach.
2. Determine cost for each activity (cost must include the cost of any applicable other services which that service consumes, e.g. occupancy).
3. Determine and agree cost drivers
4. Establish and publish fee structure, using agreed drivers
5. Ensure that all budgets within the organisation reflect the new situation
6. Set up accounting mechanisms to allocate costs
7. Process transactions, and collect data
8. Review results

The template in Appendix B demonstrates that ABC will affect every part of the organisation in one way or another, and implementation will always be a major task. Some centers have already taken big steps in the direction of ABC and for them implementation will be easier, not only because the task is smaller but because they have already acknowledged the need for better cost allocations. In many cases, existing processes and practices already used by centers in their financial structures can be adapted to fit in with ABC requirements.

The effort required for implementation should not be under-estimated, and one approach is to spread the effort by implementing in stages. Step 2 above can be challenging, for example, as it may take time to determine the full cost and the nature of those costs for some activities. In some cases, it may be better to use estimated cost data rather than delay implementation. Smooth automatic processes (Step 6) will facilitate the whole implementation.

As center budgeting and ABC are inseparable, it is necessary that budget figures are accurate for the new scenario. So the beginning of a financial year is probably the best date for inception of ABC. If implementation of ABC happens during the year, then all budgets should be revised from that date.

Some suggested best practices regarding implementation:

- ABC impacts on the workings of the whole organisation, so it is crucial to have staff acceptance at all levels. Thus the benefits must be clearly explained.
- A taskforce with representatives from the whole organisation (including researchers) should be established to have responsibility for implementation. Outside assistance may be useful when there are limited resources.
- ABC must be understood well. Staff will need to be educated on how it will work as well as new expectations in their respective functions. The implementation may fail if the organisation does not understand the impact it will have.
- The development of the cost drivers and the fee structure (steps 3 and 4) should be the responsibility of the service departments. Publishing on the center’s intranet is recommended to support transparency.
CGIAR Cost Allocation Guideline

- ABC will require some changes in the structures and codings used in the accounting software, though the complexity of this task will vary from center to center.
- It must be emphasized that ABC is an integral part of the budget process. For the managers of cost-pools, ABC demands control not only of costs, but the recovery of those costs from end-users, so that effectively they have a zero budget. For end-users, ABC requires that they take into account the total costs of all their activities.
- To be successful, ABC systems must allow for some flexibility in operation, especially at the early stages.
- It is important that the Board of Trustees and the management team provide sustained support.

Accounting systems and requirements
The CG Centers operate on various accounting systems and software with varying capabilities and functionalities. While this guideline is not intended to endorse a particular accounting system, the following considerations should be taken into account:

- There will need to be mechanisms for re-allocating costs. These must be clearly understood, and technically sound.
- ABC processing must be an integral component within the accounting system, so that ABC chargebacks are automatic. Some software has a “cost allocations” module or facility which is designed to cater for chargebacks.
- ABC mechanisms should preferably incorporate personnel time registration systems. They will certainly need to be complementary, as personnel time will often be used as the driver for facility costs.
- Any centers contemplating upgrading or replacing their accounting software should ensure that any proposals adequately satisfy ABC needs.
- ABC will require inclusion of some new cost categories in the Chart of Accounts, and this may be awkward when the design of the original Chart of Accounts did not properly allow for the possibility of any extra accounts. Financial reports must mirror any changes in the COA.
- There is no harmonised Chart of Accounts in the CGIAR, but implementation of ABC requires an extra cost category to be created for each chargeback, so this will need to be included in the accounting system. The net balance of these new cost categories is zero, as the recovery (=credit) for each service is balanced by the costs (=debit) for the relevant projects.

Suggested Services and Drivers

**Facility Cost - Headquarters Offices**
The calculation of the annual cost for Headquarters should be relatively straightforward but there are some important considerations for the drivers. The most straightforward mechanism is to implement a single charge for all facility costs to cover rent, depreciation, maintenance, utilities, cleaning and security.

A very straightforward approach is to use headcount – total cost divided by number of staff at Headquarters gives cost of occupancy per person. This has the merits of transparency and of being easily understood. However, it does not take into account differing usages of floor space so it may be necessary to make an allowance for actual space occupied per individual for
significant outliers from the average staff space. Part-timers and visitors will also make the calculation of the charges more complicated.

In this area, each of the centers will have their separate characteristics so there is no single system-wide solution. But centers will need to be circumspect in one regard to the calculation – if a building is less than fully occupied, the arithmetic result of allocating the total cost to the number of actual users may result in an excessive charge per user. This may be an indication that there is surplus space. The answer in this case is that any charge for extra capacity should become part of the Institutional Costs.

Determining cost per head is definite for charging to services, where there will usually be an unchanging situation from month to month. But the facility cost must also be passed onto projects, and many research staff will be working on multi-projects. And projects will stop, and new ones start. So the headquarters facility charge for research staff should be based on staff time allocations – more on this in the section on Personnel Costs.

One particular aspect of facility cost needs special mention – imputed rent. “Imputed rent” is a calculation derived from the market value of the premises. Many CGIAR centers have owned their buildings for many years, so the historical cost, and corresponding depreciation charges, will be low relative to the market value. It can be argued that an amount for “imputed” rent should be taken into the calculation to better reflect the market value, or opportunity cost. In a commercial context, charging of “imputed rent” may be acceptable, but CGIAR centers should only do this with the explicit agreement of the donor.

Facility Cost - IT department
The starting point is to determine the annual cost of running the service. The cost structure of an IT department can be rather complex, including staff, facilities, depreciation, hardware/software support costs, and repairs. And as the requirements and utilisation vary greatly between users, it may be necessary to take into account several factors in selecting the driver. As this is a facility cost, the charge must also be passed on from the individual users to projects or other services.

The driver could be based on headcount of individual users, or by metering actual time logged on by individuals, and charging accordingly. One component of the cost allocation should be to set a tariff for a monthly set charge per registered user. This has the advantages of simplicity and predictability. 2 staff (fulltime or parttime) sharing a single computer should be counted as one user. Longterm visitors (scientists, consultants, students) should be charged during their stays. Distinction could also be made between laptops and desktops, or for more complex requirements. Any set charge should incorporate the provision of standard software and reasonable usage and utilisation of storage space. Some IT expenses will be charged direct to the user, e.g. depreciation of accounting software gets charged directly to finance department. And if some departments require large amounts of storage space (some research experiments use incredible amounts) a supplementary charge could be levied.

Remote users may need a separate tariff. In some cases, users may wish to ”opt out” of the service supplied by IT department, eg for a standalone computer that is not connected to the network. Similarly, regional offices will have their own arrangements.
Facility Cost - Telephone/communications
The equipment will vary from center to center, and regional offices will have their own systems, but the expenditure will always be a combination of fixed and variable costs. Fixed costs of course include office space and personnel. Again, as this is a facility cost, the charge must have a second stage where it is passed on from the individual users to projects and other services.

Most straightforward is a monthly tariff per extension to recover the line costs plus a metered system which allocates not only to departments but also to individuals for personal calls. The charges should be set at a level so that they also recover personnel and space costs.

Regional Office
This can be viewed as an overall facility cost, which includes rent, utilities, security. If the regional office supports a single project, then no allocation of costs is necessary. For multiple projects, then headcount may be a suitable driver.

Research Support
There are some activities in this area which provide general support to research activities. These include:
- Office of the Director of Research
- Donor/Funding Office
- Public Awareness
- Project management information
- Intellectual Property Management unit

Because their support is general and across all projects, it is often suitable to group these together as a single charge “research support general”. Suggested allocation base is researcher time.

Laboratory services
These are provided by many of the CGIAR centers. A large center may have several laboratories, and they may provide analytical services for soil and water as well as plant or animal material. It should be the case that all the work they perform is governed by a work order or job card of some sort, so that would be the obvious choice as a driver. The costs should include depreciation of laboratory equipment and laboratory management costs (including health and safety and quality assurance costs) as well as staff time and materials. A laboratory may also perform work on a commercial basis for outsiders, and the basis for the fees would be either cost or market.

Seed Health/Quarantine Unit
All users should be charged for this work on a similar basis to laboratory services. Note that some users may be external (NARES, ARI’s) and they should be charged as appropriate.

Farm operation
This can be one of the larger service centers for some CGIAR centers. Suggested basis is a standard fee for a particular area (hectare/row/field) which includes standard procedures such as ploughing, planting, weeding, irrigation, and harvesting. However, there can be many complexities in this area, such as seasonal factors (more effort needed at different periods) and varying crops (some need more attention and inputs) so centers must determine to what extent and how these should be factored into the fee structure.
The impact of depreciation expense will vary according to the situation:

- If a tractor is used exclusively for one project, then the depreciation for the tractor should be charged direct to that project (note that in a restricted donor-funded project, the depreciation rate may be 100% in year one).
- If a tractor is used for general farm operations, the depreciation for the tractor should be charged to the farm. The expense is part of the total cost of running the farm, and is recovered via chargeback of these total costs.

**Glasshouse/Plant Growth facilities**

Standard fees should be calculated for glasshouse and phytotron usage on a similar basis to laboratory services.

**GIS**

This activity will vary from center to center, but allocation of its cost is probably best done using the time incurred of the GIS specialist(s). Researchers should ensure that budget has been allocated in their projects for any GIS requirements.

**Legal Office**

This is generally considered as an Institutional Cost, but when these units perform work directly for research projects, the incremental cost should be charged as a direct cost to those projects.

**Library**

Cost of providing a library includes not only staff, books and subscriptions but also facility and computer costs. This service is mostly for researchers, and it has to be recognized that the benefit is usually more for headquarters staff than regional staff. The library may also provide services free of charge to outsiders, in which case it may wish to place an imputed value on this service so that it gets financial recognition. The recipient of this charge would be “public relations” or “collaborative research”.

Assuming a typical cost of a library is $200,000 pa, this would become very fragmented if it was transferred to individual projects on a monthly basis. So the recommendation is to make this a monthly charge to each program based on the numbers of their research staff. It is possible to have a second stage of cost allocation, when at program level a decision is made to pass this cost onto individual projects.

As a footnote, some magazines are very specialised (and have high subscription costs) so it can be appropriate to charge these directly to the relevant project/department. Note too that many journals are now published in electronic format, so a “library” may have both physical and virtual components.

**Publications**

While each center has a Publications Department, they will vary greatly in size and structure, so a “one size fits all” solution will not work. As well as research publications, there are institutional publications such as Annual Report, Medium Term Plan and Financial Statements, so there is a broad group of customers. Publications is an area for which each center should already have a system in place for charging costs, so these can often be incorporated into the ABC approach.
There will ordinarily be a mixture of costs – fixed, including staff and facilities, and variable, including outside editors, printing costs, and distribution. This tends to be an area which provides unofficial support to other parts of the centers, so it can be difficult to track where time is spent. So agreeing costs and chargebacks between the department and its clients may not be easy. First step is to get a good understanding of the nature and amount of the fixed costs (the variable costs should automatically have a home in a project), and the biggest component will certainly be staff costs. There are alternative ways forward then, but two possibilities are:

1. Create a tariff structure for each type of publication that the department provides. This has a big advantage for researchers when they are making a project budget, as they have certainty over costs. But it means that the cost of any excess time has to be absorbed by the Department; or

2. Charge clients based on the actual time taken for each task. The driver will be staff-time, and the tariff calculated to cover unchargeable time and also facility costs.

It may well be that this department is unable to recover all its costs from its clients at the inception of ABC, so the shortfall must be included as an Institutional Cost.

**Procurement**

Procurement is an important area, and centers are expected to comply with Financial Guideline 6 “CGIAR Procurement of Goods, Works and Services”. However, this function is often challenged for its “added value”, so it may be difficult to agree a tariff structure for its services. The department can be responsible for services other than “procurement” such as shipping, customs clearances and import licences which are time-consuming but invisible to users.

A simple driver cannot cover all situations, especially as the time taken to arrange procurement transactions varies greatly with each instance. One solution would be a mixed structure of fees, e.g.

- Local purchase $50
- Overseas purchase $100
- Plus % of overall cost.

Some clients may balk at this increased cost, so may want to negotiate and contract directly with suppliers to avoid the fee. On the other hand, maintaining the fee at an acceptable level for the users may not result in the recovery of all operational costs.

ABC will be difficult to implement in this area if agreement cannot be reached on charges. In that case, the costs of the function will need to be absorbed as part of the Institutional Cost.

**Travel Office**

This has been used as an example in Section 5 of the guideline. The suggestion to use a fee per ticket as the driver is logical and fair, and should be acceptable not only to users but also by donors of funded projects. Of course, it can be argued that buying a ticket on the internet may be cheaper in an individual situation, but multiple individual purchases would easily result in other risk exposures which would otherwise be controlled through a travel office facility.
Transportation services
Revenue and expenditure should be clearly identified here, so the function can be evaluated as if it were a stand-alone business. It is especially important to separate costs when drivers may have other duties, e.g., double-up as security guards.

The recommendation is to create a standard tariff structure which reflects actual costs, and is comparable to local taxi services. There can be a surcharge for times outside working hours. The fixing of the cost of a trip to the airport or a hotel collection in a tariff structure should facilitate inclusion of these costs in project budget proposals to donors.

Canteen
Likewise, the canteen function should be set up so that it can be evaluated as if it were a stand-alone business. But this computation may have a complication if any staff are provided with free or partially-subsidised meals. In those cases, an imputed cost should be calculated and a chargeback made to the relevant department.

But it remains difficult to run a canteen at a profit (as any restauranteer will tell you). So the recommendation is to run the canteen on professional lines, make sure prices are appropriate, and ensure that the charges for visitors/trainees etc are being allocated correctly. Any shortfall becomes an institutional cost, justified by the social contribution the canteen makes.

Hotel/dormitory services
This area should be operated as a stand-alone business with a professional level of service. Billings should be made direct to end users, and it may be worthwhile investing in specialised hotel management software. Occupancy rates will be the main determinant as to whether the annual result is a profit or loss.

Housing services
The extent to which staff housing is provided on campus will vary for each location. It is important that all relevant costs are charged to this cost pool. Revenue of course comes from rent, either direct from staff or imputed as a housing allowance. Rent levels should be adjusted annually in line with inflation or market.

Capacity Building
This function will vary between centers in size and scope, so individual solutions will be required. If the training department provides a general service to the research projects, it may be appropriate to allocate some of its costs based on research staff headcount.

With in-house training courses, it is more straightforward to determine an appropriate fee rather than divide the cost between the participants. But a common situation should be mentioned – what to do with spare places when a course is under-subscribed. The practical solution is to allow individuals to participate then on a FOC basis on the assumption the marginal costs are insignificant. This may be inequitable to others who have paid.

Office Supplies/stationery
Total annual cost for a center can be significant, but tracking that cost through to the many end users can be laborious. Operationally, if is not too cumbersome, the best solution is to treat stationery as inventory items, and charge as items are requisitioned and issued.
Photocopying
A charge per copy should be calculated, to take into account all relevant costs (paper, operator, contract with supplier, etc). Usage quantities can be measured either by meter or manually, for charge to end-users. But before setting up charging mechanisms in this area, centers should ensure the benefit is worthwhile.

Post/couriers
These expenses should be charged directly to end-users. For post, the post room should set up a register so that a monthly billing can be generated. For courier charges, these should be allocated when the invoice is processed by Accounts Payable.

Utilities – Electricity/Gas/Water.
In the case of office facilities, these should be charged direct to the facility costpool, and be recovered via the general facility chargeback. All large users of any utility (eg IT, genebank, farm) should have a separate metre installed, so that they are billed for actual usage.

Workshops - general engineering
For Centers with equipment and maintenance workshops, there will usually be three main elements of cost:
1. Personnel
2. Spare parts / components
3. Other Services – facility, electricity, etc.

Two possible approaches:
Method 1 – Utilise a job card system (as a commercial workshop would) to establish a charge for each job undertaken. The number of hours spent on each job would be recorded at a standard hourly rate. Spare parts should be charged at cost plus an allowance of say 20% to cover inventory costs. And the costs of other services should not be high in comparison to the other costs, so probably a percentage on other costs could be added on (or it could be built-in to the hourly labour rates). The outcome would be a charge for each job undertaken, to be billed to the relevant users.

Method 2 – It may well be that the workshop has a single customer – farm operations. In that case, it would be sensible to include the cost directly in the rates agreed for charging out farm operations.

It should be recognized that the cost of maintaining a workshop would often not be justified if commercial criteria were applied. These workshops may be regarded partly as a “stand-by” service to ensure continuity of operations, especially when equipment is several years old.

Workshops – motor vehicles
The cost elements for a motor vehicle workshop will be substantially the same as those for an engineering workshop. Again, there are 2 alternatives for charging costs. First possible method would be a job card system as above, with a price for each job undertaken. This is recommended when there are a variety of end users, including possibly private cars. There is an alternative which would be appropriate if only center-owned vehicles are serviced and repaired by the workshop. In that case, it would be simple to calculate an average cost per vehicle per annum, and charge that to the vehicle users.
Risk Management

When implementing ABC on a “project” basis, centers should include an analysis in the project plan to identify potential risks and mitigations. This ensures that mitigations are properly considered and sequenced, and their effectiveness tracked, during the implementation process. Inadequate mitigation of risks could lead to incomplete or failed implementation, or incorrect financial information, inefficiencies and staff morale issues.

An example template showing some possible mitigations for typical implementation risks is shown below:

<table>
<thead>
<tr>
<th>Risk</th>
<th>Mitigations</th>
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</thead>
<tbody>
<tr>
<td>Lack of internal buy-in within the center for implementation</td>
<td>Explicit Board of Trustees and Director/General/Senior Management Team endorsement of implementation, disseminated across the center</td>
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<tr>
<td></td>
<td>Clear communication to all center staff of ABC, its implications, challenges and benefits, and approach to implementation to be adopted</td>
</tr>
<tr>
<td>Inadequacy of human resources, from within the center or in the form of outside expertise contracted on a consultancy basis, to manage the initial implementation and ongoing maintenance phases of an ABC effort</td>
<td>Review of human resources capacity before embarking on significant ABC implementation efforts.</td>
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<td></td>
<td>Additional training of staff identified as having key roles in the implementation, where these staff do not have in depth experience in such roles already</td>
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<td>Allocation of responsibilities on full time basis during critical implementation phases</td>
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<tr>
<td></td>
<td>Use of outside expertise for facilitation of cost and process discussions and where this can provide full time assistance during critical implementation phases</td>
</tr>
<tr>
<td>Insufficient support of accounting systems to support implementation</td>
<td>Review of accounting systems capacity and chart of accounts once decisions on level of cost tracking are made</td>
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<td></td>
<td>Benchmarking with other centers on accounting system workarounds where existing systems are inadequate</td>
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<td>Inclusion of ABC-supportive criteria in</td>
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</table>
| No or inadequate response to the information on efficiency of services which may be highlighted from an ABC implementation, including the decision to retain services in-house or seek to outsource them | Monitoring by service units of their efficiency, including benchmarking with external providers where possible. 
Audit reviews of efficiency of service units. 
Review of benchmarking methodology by all stakeholders to ensure that it allows for meaningful comparisons 
Clear information provided to users on reasons for higher in house costs compared with external alternatives, where this is identified from benchmarking analysis 
Where strategic interests/scientific credibility of the center call for in house retention of a service despite higher costs, this is explicitly considered and endorsed by senior management |
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<tbody>
<tr>
<td>Imbalance between the level of detail to which costs will be tracked and the transaction costs of such tracking</td>
<td>Senior management (or an ABC implementation steering committee) explicitly agrees on what costs will be tracked at what level, to guide service units and finance department staff on the level of effort expected/or decide on recommendations from these units/department on such matters before they embark on any significant investment in system and procedure changes.</td>
</tr>
</tbody>
</table>
| Incorrect tariff calculations | Establishment of tariff committees involving users as well as financial and other representatives to assess and adopt tariff methodologies and computations 
Initial and periodic update reviews of tariff methodology computations by auditors or external experts |
## Step 1 - Allocate service costs to users

<table>
<thead>
<tr>
<th>Function</th>
<th>HQ Office</th>
<th>IT department</th>
<th>Research Director</th>
<th>Donor Relations</th>
<th>Seedbank</th>
<th>Genebank</th>
<th>Laboratory services</th>
<th>Farm operation</th>
<th>Glasshouse</th>
<th>Library</th>
<th>Publications</th>
<th>Travel Office</th>
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<td>Costs</td>
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### Step 1 - Allocate service costs to users (continuation)

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**Note:** Services costs not chargeable.

Institutional Costs are allocated to programs.

Figures are for illustration only - not based on an actual CGIAR center.