Broadening monitoring and evaluation within reforming national agricultural research systems

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ON

BROADENING MONITORING AND EVALUATION WITHIN REFORMING NATIONAL AGRICULTURAL RESEARCH SYSTEMS

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1.0

BACKGROUND AND OBJECTIVES

The Council for Scientific and Industrial Research (CSIR)[1] together with the Natural Resources Institute of the United Kingdom and with input from the Ghana Institute of Management and Public Administration convened a one-day Policy Dialogue Forum on "Broadening Monitoring and Evaluation within Reforming National Agricultural Research Systems". The meeting provided a platform for discussing current experiences with monitoring and evaluation by CSIR and for introducing alternative practices (frameworks, methods and tools) that would enable research bodies to manage and demonstrate their performance and contribution to national development targets in a consistent and coherent form.

While the pilot project was conducted at institutional level, involving two CSIR institutes (CRI and FRI), the forum was conducted at the corporate level, and including other corporate organisations from the public and private sectors.

The objectives of the forum were
1. To disseminate experiences from the first phase of a performance measurement action research project within NARS in Ghana and Uganda
2. To raise awareness among Ghana's research management community and allied stakeholders of the importance of measuring institutional performance as an element of demonstrating developmental impact
3. To explore with key stakeholders opportunities for strengthening institutional performance measurement and management in the context of ongoing institutional reform in CSIR and other public sector organisations

Participants were made up of Senior Management Personnel from public organisations and training institutions. See appendix for list of invited participants and those who actually participated in the forum. It was quite significant that the private sector invitees and donor representatives were absent. This invariably affected the level of discussion; since the private sector experience with performance management and measurement would have further enriched the discussion. However, the forum was well attended and the level of participation was recommendable.

The forum began with a welcome address from the Deputy Director-General of the CSIR in charge of Industry, Natural and Social Sciences, which stressed the need for research organisations in Ghana to embrace a learning culture with regard to measurement and management of their performance. This was followed by three presentations.   NRI presented the rational for widening current approaches to

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[1] Specifically the CSIR Directorate, and two of its institutes, the Food Research Institute and the Crops Research Institute, both of which had participated in the first phase of a pilot project on performance management.

M&E in research organisations, and described the benefits of using the balanced scorecard approach for organisational performance measurement. The CSIR – AFFS M&E specialist presented his experience with introducing and using a management information system (INFORM), and its potential contribution to priority setting based on commodities and disciplines. GIMPA's Deputy Director General gave a presentation on how to conduct staff performance appraisals, and their potential value to research organisations. These presentations were followed by a discussion (reported below). Case study presentations outlined the experiences of the three research organisations in using the scorecard approach in the first phase of the pilot project on performance management.

Following the presentations, the original plan was to have three breakout groups (corporate level, institute level and sector level) to reflect on current practice and outline a way forward for improved performance management. The corporate level group absorbed the sector level representatives due to time constraint. Each group focused on a generic analysis of the current situation at the two levels regarding performance measurement and outlined a way forward at corporate and institute level.

2.0

WELCOME ADDRESS
By
Prof. A. Ayensu
Deputy Director-General, CSIR-INSS

On behalf of the Governing Council, the Executive Committee, the Acting Director General, and entire Staff of the CSIR, I wish to welcome all of you present here to this very important policy dialogue forum on broadening monitoring and evaluation within reforming national research systems.

We in the CSIR have been grappling with re-structuring under the National institutional Renewal programme (NIRP) for Public sector reforms. The ultimate objective is to make CSIR undertake more targeted research to support the socio-economic development of the nation.

Unfortunately, some of the difficulties encountered in the transformation processes have relate to performance measurement and management, monitoring, evaluation and control of programmes, benchmarking of indicative outputs and inter-relationships between our goals and the external and internal market sensitivities.

I therefore see today's forum as opportune for all us to study and discuss the framework for organizational review and appraisal and we are thankful to Dr. Alistair Sutherland of National Resource Institute (UK) for initiating the dialogue, and our Resource Persons and Prominent Consultants for agreeing to share their experiences with us.

It is clear that we don't feel comfortable when we are subjected to critical examination, but every knowledge-based organization must be rejuvenated through learning experiences.

All of us here are managing some aspect of organizational activities and have at one time or other prepared Strategic Plans to guide us, out of the Mission statement and the Mandates we have derived our Vision, and hence set the Goals (with targets) and undertaken SWOT Analysis to come out with Action Plans. Irrespective of the numerous constraints, we do set out various tasks with clearly achievable outputs which are often guided by Logical framework. Therefore, we should find today's dialogue very exciting and much more participatory.

Nevertheless, in our deliberations, we should take cognizance of:

1. R&D organizations are consistently required to improve their performance, in terms of not only project outcomes, but also of quality of their programming and their institutional capacity. In practical sense, evaluations are now perceived as learning opportunities. It only seems logical, therefore to try and improve the internalization of evaluation results at different levels.

2.	R&D programmes being quest for innovation and societal change, there is clearly an ongoing need to find out exactly what works, when and in which circumstances. Against this background, it is becoming increasingly common to build evaluations into processes of institutional learning. Effective communication therefore is becoming more and more important as an integral part of the evaluation process.

3.	Evaluation has always been about learning, about how to be accountable, how to be transparent, how to be learn from experience. The issue today, therefore is not whether it is desirable to learn. Instead, the question is: Who should learn, why should they learn and how should they set about it? Quality issues also come into play if learning is to be widely shared.

4.	Evaluation serves a number of different purposes. A growing emphasis on learning from evaluation means a shift in intentions.

   ❖ Traditionally, *control* has been an important purpose, and from this perspective, the aim of evaluation has been to enhance transparency and accountability, particularly from funding agencies point of view.

   ❖ Another vital aspect is *assessment*, i.e. deciding whether the agreed objectives have in fact been achieved. With learning in order to improve performance now becoming an increasingly important purpose, evaluations could eventually become geared towards *adaptive management*. Institutional learning and the development of the institutions responsible for managing development would be pre-requisites for this.

   ❖ These reflect the growing complexity of evaluation functions involving shift in intentions from control, assessment, learning and adaptive management.

5.	Finally, we need to make serious effort to open up new vistas, refine and develop new approaches, devise new tools and inquire into new experiences. In our contribution to this debate, we must consider the current thinking of goal setting, determination and attainment as governed by

   ❖ External Perspectives: (i). Clients/stakeholders perspective – How do we appear to our clients? (ii). Financial perspective – How do we appear to our financiers?

   ❖ Internal Perspectives: (i). Internal business perspective – At what must we excel in our work? (ii). Employee learning and growth perspective – Can we continue to improve and create value?

With these remarks, I wish to welcome you once again to this dialogue and hope that we will have very fruitful and purposeful deliberations.

PLENARY PRESENTATIONS

3.0
BROADENING THE MONITORING AND EVALUATION OF RESEARCH: KEY CONCEPTS AND ASPECTS.

By
Alistair Sutherland and David Rider Smith

1. **Introduction**

Research institutions in Ghana are facing various challenges. It is our contention that viable research and development institutions are needed for achieving sustainable change in areas of national importance. A key aspect of institutional viability is strong performance management. This implies clear and workable approaches to performance measurement.

The background to this forum, and a similar one which took place in Uganda in August, is a DFID-funded pilot action research project that ran between September 2001 and December 2002. The project aimed to adapt and test a novel approach to performance management within three agricultural research and development agencies (the Crops and Food Research Institutes in Ghana, and the National Banana Research Programme at Kawanda in Uganda).

Both were made possible by financial support from DFID's Renewable Natural Resources Research Crop Protection Programme, Natural Resources Systems Programme, and the Rockefeller Foundation.

The need to address performance management is an issue that is increasingly central to the concerns of the CGIAR. We have collaborated with ISNAR who are developing similar work on evaluation capacity development and performance management and this project has aligned itself with similar work by the World Bank, IDRC and ASARECA. This presentation covers the following issues:

  ❖ Why there is a need to broaden the approach to monitoring and evaluation?
  ❖ How this broadening can be achieved,
  ❖ The relevance to NARS and other aligned initiatives

2. **Why broaden the existing approach to monitoring and evaluation?**

We have identified three related main reasons why.

Firstly, the ongoing assessment of the capabilities and capacities of R&D (research and development) organisations has, to a large extent, been sidelined by a pre-occupation with end-user impact

The existing preoccupation with assessing beneficiary or end-user impact has tended to mask the relative lack of information about the capacity and capabilities of R&D organisations to meet past, current and future challenges. Consequently, it has been difficult to link information about change (impact) or the absence of it, among beneficiaries, with information on institutional capacity at the time research products were being developed.

End User impact studies rarely provide the type of information that is needed by decision-makers to develop their programmes and organisations to address emerging opportunities. The main reason why these studies have not made more of a difference is that their main objective is to validate past decisions made on resource allocation, rather than to inform future strategies. This is not to say that impact assessment studies are not important to funders. However, economic impact assessments fail to provide research managers with critical institutional lessons concerning ways of improving research and innovation as a process.

For example, the CGIAR's 1997 analysis of ex-post studies of impacts of international agricultural research centres, stating that "the documents are relatively uninformative about what kinds of people are using these products and about the short- and long-term effects of the use of the products on these beneficiaries. In other words…we still know very little about the degree to which the CGIAR is achieving its mission….and how and where to invest on the basis of this information". The CGIAR is currently exploring performance management techniques to help improve strategic management and lesson learning.

The *second* reason is that most R&D organisations lack clear performance frameworks or systems which are central to assessing and achieving organisational effectiveness. There are two aspects to this lack.

Firstly, targets (for example the Millennium Development Goals) before a clear process of how they are to be achieved is detailed, and measurement becomes fixed at two polar levels. At one end are monitoring systems which focus on measuring the inputs, processes and research outputs (usually applied at project level). This measurement is very narrow in scope, saying little about performance in a broader sense. At the other end are impact assessments of macro-level changes. Between these two is what is often termed the 'missing middle', i.e. the process of how research outputs have or have not been transformed into developmental impact. Little information exists on this, although it is crucial to understanding why, or why not impact has been achieved.

Secondly, there is a lack of organisation or programme level performance frameworks. Few organisations have performance frameworks with clear targets and understandable measures which cascade down into operational units (projects) as a basis for cross-walking (learning lessons across and up) and reporting on overall performance. Further, budgets are not tied to performance, but typically to recurring costs (notably staffing), thus few incentives exist to improve performance. The monitoring and evaluation information generated by discrete projects does not provide sufficient information on the performance of an organisation. At best it provides a list of the types of outputs produced. An example of this is to ask the question to a staff member 'How do you know how well your organisation or programme is doing? What would you point to?'. Typically, staff point their specific achievements in discrete research areas. Whilst these may be laudable, it does not necessarily provide an overarching picture of the performance of an organisation or programme, which includes numerous internal and external facets.

Thirdly, existing M&E information does not generally provide a comprehensive assessment of on-going progress nor guide strategic decision-making.

It is well known that the developmental impact of research is notoriously difficult to assess. This point to the need to look at short- and medium-term organisational performance measures as proxies of likely developmental impact. To overcome the disconnect between research outputs and development impacts, appropriate approaches are needed that account for organisational uptake and research outcomes as the clearest evidence of likely developmental impact.

In contrast to the public sector, private sector R&D companies have found a greater emphasis placed on the ongoing process rather than ex-post achievements. This is largely explained by the need to identify research 'failure' early on in the research cycle to ensure that products or processes that advance to the final development stage have a high probability of commercial success. This has relevance for public sector research which has even more limited resources to address a much wider range of challenges and opportunities.

Short- and medium term 'leading' indicators are required that guide strategic thinking about future research priorities and opportunities. This equivocates to 'business intelligence' within the private sector. To achieve this, a balanced set of measures are required that explicitly address the key elements of organisational performance. Such measures will provide a more realistic assessment of on-going research progress; assist more clearly in identifying potential

problem areas and guide future opportunities. Targets for assessing the performance of research organisations must internalise a broad body of measures that reflect the external environment, including client satisfaction and funding streams, alongside internal measures of staff performance, staff satisfaction and the research process.

To summarise the reasons why we feel there is a need to broaden the existing approach to monitoring and evaluation:

❖ Firstly, economic impact assessments fail to provide research managers with critical institutional lessons concerning ways of improving research and innovation as a process.

❖ Secondly R&D organisations have lacked clear performance frameworks and as a result critical assessment of their capacity and capabilities, during and after investment periods has not been done. Such assessment is needed as a basis for providing better information not only about what works, but also what doesn't, under what circumstances, and most importantly, what are the drivers that determine success or failure.

❖ Thirdly, existing measures of performance are defined within the narrow context of projects, with monitoring and evaluating of the research process, and research impacts. This says little about the overall organisational performance or effectiveness (i.e. progress towards wider and higher goals). Broader performance measures are needed as proxies for likely impact, along with leading indicators that guide strategic decision-making.

3.   **How can the approach to monitoring and evaluation be broadened?**
Having outlined the reasons for broadening the approach, I will now turn to some key areas in which this may be achieved.

   ➢ *Firstly, there is a need to clarify the terminology*
❖ What is meant by the terms performance, performance measurement and performance management?
❖ Performance "the functioning of a programme or organisation over which the actors involved have direct control or a manageable interest'
❖ Thus, by extension, performance measurement is "the system (methods and tools) used to monitor and assess the programme or organisation's functioning"

❖ Performance management is "the effective integration of performance measurement within a programme or organisation's strategic planning and decision-making processes"

❖ The differentiation of measurement from management is stressed as it was recognised that while a performance measurement system may run independently of management (as is often the case with M&E), if it is to be effective, it must be both integral to the programme or organisation's strategic goals and objectives, and inform management planning and budgetary decisions.

> **How does this differ from the common understanding and practice of Monitoring and Evaluation?**

  ❖ Diagnostic exercises in Uganda and Ghana during the project made clear that M&E mainly referred to the measurement of the conversion of inputs-to-outputs through implementation tasks

  ❖ Further, M&E is practised almost entirely within the context of discrete research projects. M&E at the programme or organisational levels, if done at all, is usually the accumulation of the results from projects, and thus is not more than the sum of the parts of the research process.

  ❖ In contrast to M&E, the term performance evokes a sense of achievement and responsibility across several domains; the external environment (including client satisfaction and funding streams) alongside internal measures of staff performance, staff satisfaction and the research process. The roots of the term performance lie in private and public sector organisational strategic management, thus further inferring a higher level of operation (the organisation, or sector) rather than the project.

Having clarified the difference between performance and M&E, I will now discuss: the importance of defining manageable aims, locating impact-orientation, and performance measures.

Firstly, defining manageable aims

The establishment of performance goals and objectives should focus on the operational parameters of the programme or organisation, clearly defining the boundaries of control and influence (including responsibilities shared with partner organisations). This is vital for learning and accountability purposes.

In the pilot project a series of 'goal' identification exercises were undertaken with the case study organisations during diagnostic visits and in a workshop.

Differences in individual's perception of their organisational goal reflected differing understandings of what they were expected to achieve and, by extension, to be accountable for. This ranged from realistic understandings, such as the development, testing and dissemination of research products and services, to goals beyond their manageable interest, such as improving the welfare (food security and income) of end-users.

This latter perspective reflects certain expectations and pressures on research organisations to have a bigger impact on national welfare. This implies a substantial influence over existing extension and other agricultural services (private and/or public) and policies to achieve such a wider mandate. Whilst it was noted that, through on-farm research with extension staff and farmers a local impact may be felt, to achieve the wider development aims research and allied organisations need to be clear about who is responsible for what, and how they may work together. This is to avoid the danger of research organisations (and others) over-reaching themselves, moving beyond areas of core competence, and loosing sight of their overall goal and mission.

After defining a goal, which is under the direct control, or manageable interest of the organisation, it is then possible to develop clear objectives, targets and performance measures to which all staff can respond. This has positive effects for staff in that each staff member can be empowered by having a clear role and tasks. Moreover, pay and conditions can be related to their performance within their mandated areas. This provides incentives to work productively and remain within the organisation. It was noted during the diagnostic assessment across the three research institutions that this was a problem area.

This also has positive effects for management. While not underplaying the need for inter-agency collaboration and for multi-tasking in smaller organisations, the delineation of organisational accountability, clear staff roles and responsibilities, and the definition of performance measures for staff enables a clearer basis upon which to manage overall performance.

Where does impact, and impact-orientation fit in this context?
Within the context of performance and performance management, impact-orientation refers to the construction of objectives and targets that say something about _the contribution of the organisation to wider development aims, yet remain realistic and achievable through the actions of its staff._

Thus, impact orientation is defined as "The focus of a plan, project, programme or organisation on outcomes rather than outputs", with outcomes seen as specific, planned accomplishments defined as changes (whether in behaviour, relationship or activity)". This contrasts to commonly defined expectations of impact that reflect changes beyond which a specific institution has a mandate – such as reductions in food insecurity and poverty. Whilst these remain national targets, it is not expected that any one institution is responsible for achieving them on its own. Rather, by recognising and mapping mandates, roles and responsibilities of the various actors (and the linkages between them), our contention is that it is possible to keep clear zones of performance and accountability, whilst striving towards larger goals. Managers of institutions are likely to get improved access to public resources if they are able to demonstrate plausible linkages between their programmes and national goals and targets. This involves identifying indicators at the level of uptake, "reach" or outcome over a medium term time frame.

The implication of this for impact assessment is that it reflects an appraisal of the performance or effectiveness of the various actors in achieving national development targets. Thus, rather than seeking to measure only end user changes, it is a more defined process of looking at institutional performance, capacity and capability as a basis for assessing what changes have or have not occurred, and why.

A further aspect of an appropriate performance framework, is the need to broaden the perspective beyond core research measures to incorporate other performance drivers (e.g. client and employee satisfaction, and financial sustainability)

Both private and public sector organisations have suffered from the lack of a balanced and strategic approach to performance management, being either too narrow (private) or too broad and cluttered (public). Analysis of the performance systems of private commercial companies in the USA a decade ago recognised that they were too narrowly focused on objectives and indicators of financial performance which hindered their capacity to function effectively and create future economic value. By contrast, public sector systems typically measure performance based on a cluttered raft of old measures superimposed by new ones reflecting internal/organisational, and external or government policy shifts.

We suggest that a balanced set of indicators that explicitly address the key elements of organisational performance are central to achieving sustainable research organisations that will have longer-term impact. The information from these indicators will provide a more realistic

assessment of on-going progress in the delivery of "impact -oriented outcomes", and assist more clearly in identifying potential problem areas.

Objectives and targets for assessing the performance of research organisations must internalise a broad body of measures that reflect the external environment, including client satisfaction and funding streams, alongside internal measures of staff performance, staff satisfaction and the research process. For example, accepting client satisfaction as a meaningful measure of external performance and including uptake (also termed application, "reach" or adoption) provides a minimal but more measurable indicator of research benefits. To achieve this, indicators of client satisfaction would be linked to identified phases of the research process (each with a clearly defined clientele) and measured through client satisfaction surveys. Thus, whilst the timeframe of research and its "upstream" location on the strategic-adaptive continuum may in particular cases constrain the extent to which the economic impact (potential or actual) can be assessed, progress further up the impact chain can still be evaluated, with the findings used as a basis for learning and action.

Further, measures that focus on the collection of information about the external funding and client environment, can be used as drivers of strategic, forward-looking management. To exemplify these points, I will outline the approach we took and adapted during the project to test and develop performance management practices within the three research organisations. This approach is known as the balanced scorecard.

The balanced approach to performance management is drawn from the work of Kaplan and Norton's (1992) analysis of the large private corporations. Whilst the scorecard concept was introduced as a private sector tool, it has been adopted by the public sector to examine the ways in which government organisations can include customers, stakeholders and employees in their performance management efforts – to reach some balance among the needs and opinions of these groups with the achievement of the organisation's stated mission.

The Balanced Scorecard builds on the following key concepts:
- ❖ Causality – the belief that managers can identify things to do that will lead to results being achieved.
- ❖ Learning – the belief that given appropriate feedback, managers and staff will identify ways to improve performance.
- ❖ Teamwork – the belief that most organizations rely on activities performed by teams.

Balanced Scorecard Framework
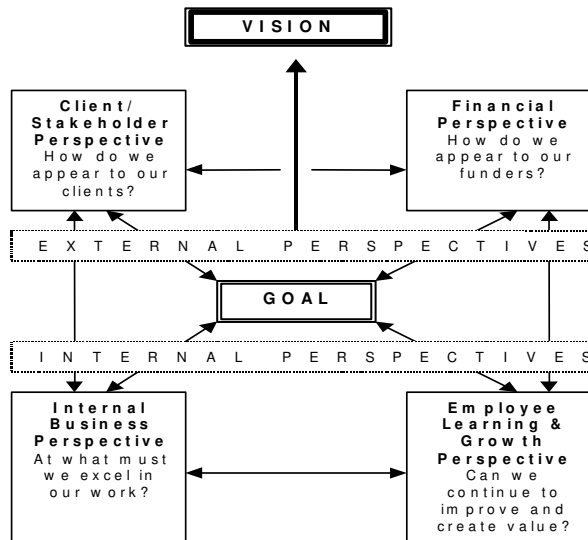
- ❖ Communication – the belief that clear communication of goal, objective, results and expectations are necessary to achieve high levels of performance.
- ❖ *Vision*: what an organisation or programme wants to be in the future (a longer-term aim that situates the organisation or programme within a broader institutional context).

- ❖ *Goal*: what a specific organisation or programme wants to achieve by a certain time (e.g. be a centre of excellence by Year X (NB. with clear measures used to define 'centre of excellence')

The scorecard has two **internal Perspectives**, these reflect the systems and processes which drive an organisation.

Firstly, the Employee Learning and Growth Perspective which poses the question "Can we continue to improve and create value?"

Human capital is the key resource in any research organisation. This perspective focuses on the performance of internal employee-related processes that drive the organisation, including forward-looking targets for continual improvement. Without employee "buy-in", a research organisation's achievements are likely to be minimal. The effective recruitment, retention, motivation and ongoing training of core staff is a key area of focus. This is of particular relevance in an environment where (a) other agencies (e.g private companies and NGOs) are attracting able employees away from the public sector to potentially more lucrative jobs, and (b) where donors are looking to invest in attractive, growing organisations.

Internal Business perspective: "To satisfy our clients, at what business processes must we excel?"

This perspective focuses upon the value chain from identifying client needs through to the delivery of the service or product. Central to this perspective is the link with understanding client needs as part of the external perspective, which in turn is reflected down into the internal research process – developing, adapting and changing (technology and knowledge) as effectively as possible to provide the services and/ or products required by clients. Indicators for the internal business perspective should relate to actions of staff involved in a particular process, but are objective-led in as much as they retain their focus on the external requirements. For example, the development of adapted varieties of a particular crop that can be locally reproduced and marketed. Partnership (with other research organisations) may be a key part of the business processes and hence indicators to measure performance in the management of research partnerships could be useful.

The External Perspectives relate largely to external interests, both those who are the intermediate and end-users of the services, and those who are funding the service provision.

Client and Stakeholder perspective is represented by the questions "Who are our clients and stakeholders? How do we currently appear to them and how do we want each of them to view us?

This perspective maps out the organisations' main clients and stakeholders and considers its' performance through their eyes, so that the organisation retains a careful focus on client needs and satisfaction. In the case of agricultural research, a number client groups are not funders, and may often not have a full understanding of what is involved to produce the service delivered, or how to clearly articulate their needs in relation to potential research outputs that may benefit them (hence the emphasis from donors and others over the past 20 or so years on "demand driven" and "client oriented" research). Greater power being placed in the hands of end users as clients of research and development services (through, for example, the contracting out of public services to private providers), increases the need for agencies to better understand and incorporate the views of these clients in organisational planning and operation.

Financial perspective is guided by the questions "How do we appear to our investors: donors, government and corporations? How is this reflected in our financial strategy?".

This perspectives looks at how an organisation or programme's financial position can be managed in view of external trends in funding from a variety of sources. For research organisations this includes (a) government sources (including policies with regard to

competition for funds, future funding levels and the practicalities of when and how much of budget allocations will be disbursed); (b) external loan and donor funds (the effect policies and conditionalities on the amount and flow of funds); (c) private sector funds (opportunities and likely conditions); (d) funds to be accessed through existing partnerships (extent to which these rely on the networks of individual researchers); (e) funds to be generated through cost-recovery. The degree of fit with, on the one hand, the reasons why governments and donors invest, and on the other with the reasons why the organisation undertakes the work on the other. Apart from the routine financial monitoring in all research institutes through established procedures, managers often do not have a clear idea of costs, and how to establish a relationship between costs and outputs, as a guide to assess whether they are using their financial resources prudently and strategically. There is often a pre-occupation with operating costs, while staff costs are perhaps seen as things which are outside the control of research managers relying mainly on staff recruited through the public service, while capital costs are often tied to large loans and donor funded projects. Moreover, a current preoccupation with income recovery activities may risk a research organisation from straying from its strategic goal in order to address more immediate budgetary concerns and income generating opportunities.

How the scorecard can be used

The scorecard can be utilised in three main ways:-

❖ *As a framework* for assessing organisational capacity, capability and trends, the scorecard highlights the central performance areas of an organisation. Thus, identifying entry points for learning and change.

❖ *As an approach or system*, the scorecard facilitates the review and development of specific objectives and measures of an organisation's internal and external perspectives, to generate a balanced, data set for measuring organisational performance, and a plan for implementing measurement.

❖ As a *causal map for informing a strategy* for enhancing an organisations' developmental impact. An organisation will have a strategy, either informal or elaborated as a strategic plan, for achieving its aims. The scorecard explicitly recognises that no single measure provides a summary of overall performance in the implementation of this strategy. Arranging the perspectives horizontally and vertically is a way of checking the internal consistency, revealing cause-and-effect linkages, overlaps where an indicator may measure more than one objective, and gaps, where no indicators are found but are needed.

Example: Crops Research Institute, Ghana

Chart 2. Objective Mapping – Crops Research Institute
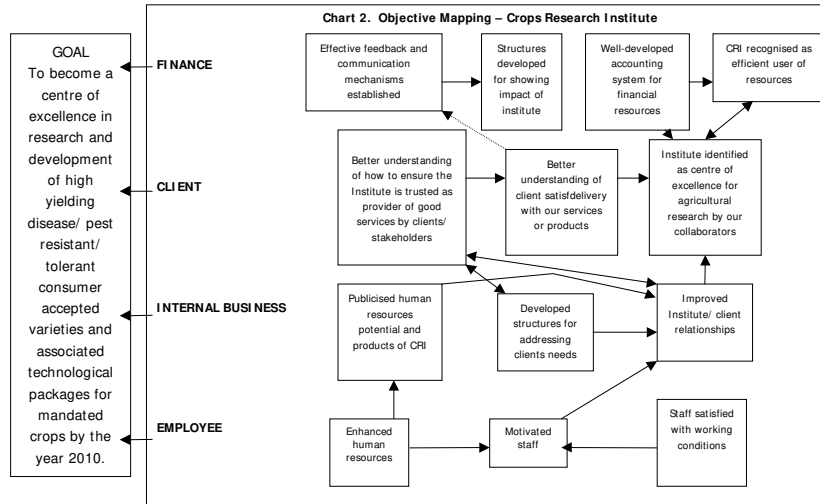
On the screen is a map of the Crop Research Institute's objectives. This map is presented as an example of how cause-and-effect relationships can be analysed and charted. Numerous assumptions exist in this linkage map. At the lowest level, if human resources are enhanced, staff motivation will improve and CRI will feel more confident in publicising its human resource capacity. Improved staff motivation and demonstrated human resource capacity is likely to lead to improved institute/ client relationships. Improved institute/ client relationships are also contingent on a better understanding of, and linkages with clients in terms of understanding their satisfaction (and acting upon it). Alongside with strong internal fiscal systems, this should contribute to CRI being recognised as an efficient user of resources, and more broadly, a centre of excellence for crops research.

Reviewing the objectives, and measures (key performance indicators) used to assess these objectives, should reveal the implicit theories (assumptions and sub-assumptions). As well as checking the theoretical soundness of these assumptions, it is also crucial that a balance across the objectives and measures is found, ensuring that short-term improvements do not conflict with long-term goals. This emphasises the inter-dependency of the different perspectives of the scorecard, and the associated danger of over-emphasising one aspect at the behest of another. Within the project the scorecard was developed through the formulation of objectives under each perspective, key performance indicators, the identification of critical success factors to achieve the objectives, and the development of delivery plans.

The constructing of objectives under each perspective is followed by a stepwise review of what is currently being conducted in each area. This is followed by consideration of what critically needs to happen if the objective(s) are to be achieved. Gap identification (between what is happening, and what needs to happen) leads logically to the development of delivery plans to address these gaps. In its complete form, an organisation or programme should have a performance system composed of four integrated sub-systems (under each perspective) which collects and provides real-time information on organisational performance.

In Summary, the Balances Scorecard offers the following advantages:
- ❖ It enables a shared understanding of the strategy amongst management and staff, enhancing motivation and ownership
- ❖ It supports a balanced view of performance, internalizing previously neglected areas
- ❖ It helps to concentrate the flow of information essential for strategic management
- ❖ It provides a framework for feedback and learning

4. **What are the possible implications of this approach for Research Organisations and aligned sectors or organisations?**

Context: public sector reforms and strategic reviews are challenging all sectors and institutions, including research organisations, to become market-responsive, demand-driven and results-orientated

The need: central to reform agendas is the need for practices (frameworks, tools, methods) which enable those responsible to manage and demonstrate their performance and contribution to national development targets in a consistent and coherent form. This requires an ability to demonstrate plausible linkages between their programmes and developmental goals and targets to the satisfaction of various parties, including the funders of research.

What is being offered to address the need?
- ❖ A focus on performance, not just monitoring and evaluation
- ❖ An approach for defining manageable goals/aims linked to clear objectives and targets that cascade through an operational unit
- ❖ This means determining strategic practices relating to performance measurement that are owned by managers and staff, and reflected in day-to-day processes
- ❖ This means defining performance not just in terms of the core function/s of an organisation, but across a wider, balanced range of measures that include client, funder and staff perspectives

4.0

PLANNING, MONITORING AND EVALUATING AGRICULTURAL RESEARCH: EXPERIENCES WITHIN THE GHANA NARS

By

K. M. Setsoafia
CSIR-AFFS

Agricultural research was probably the first and is the most widespread form of organized research and one on which both the most developed and developing countries are engaged in.

Though it is a very important and complex activity, efforts to improve its management started receiving serious attention only about two decades ago. Arnon (1989) has observed that the organization and management of this vast and complex activity are so haphazard. According to him, in almost every country the agricultural research organization has 'grown-up' without this 'growth' being planned or directed.

One of such efforts is the introduction of project management techniques to improve its effectiveness and efficiency through planning, monitoring and evaluation.

In Ghana, project management techniques were introduced in 1992 at the inception of the National Agricultural Research Project. As a result of this development a National Agricultural Research Strategic Plan (NARSP) was prepared and launched in November 1994. Priorities areas for research programmes and themes were identified. Research proposals were received based on these areas, reviewed and some were approved for implementation. Implementation started in 1996 and ended in March 1999 when the NARP expired.

In addition two tools i.e the logical framework approach (LFA) and management information systems (MIS) were introduced to improve the planning, monitoring and evaluation of research activities. This paper is an attempt to recount the experiences of the Ghana national agricultural research system (NARS) in the use of these two tools for the above-mentioned activities.

Planning

Planning in research is aimed at determining objectives and priorities and human resources in broad terms. At the start of the NARP there was no formal priority setting mechanism in use by the Ghana NARS. Obviously the system had to set priorities in one-way or the other and three major factors were involved in this.

The first factor was past government decisions on the setting up of research institutions. The second factor was pressure and influence of donors. Their decisions on what kinds of research to fund had a profound influence on research priorities at times when government funding for operational costs were minimal. The third factor that influenced the selection of research programmes was the researchers' own interest as determined by formal training, the availability of equipment, the opportunity of for publication and the current system for promotion.

In order to develop a system for priority setting that was as objective and transparent as possible, and one where the 'ownership' was vested in Ghanaian scientists, the NARP appointed nine commodity/factor committees consisting of researchers, extension staff, traders and farmers.

These committees designed comprehensive questionnaires to collect background information on each of the commodities such as area, production systems, importance for household and national income and Ghana's comparative advantage in production. A second questionnaire was designed to collect data on the impact of past research, the nature of the on-going research and its expected impact. In trying to find out the expected impact, the committees were greatly handicapped by the absence of an organized system for accessing published and unpublished information on past research such as was provided at a later date by the Ghana Agricultural Research Information (GHAGRI) database.

The quality of research prioritization is largely dependent on the quality of the information that is collected by questionnaires such as those noted above. While these provided much useful information, they also showed some serious gaps which will need to b filled. One such gap is the expected impact of research. Therefore the ex-ante estimates used for the purposes of priority setting may be nothing more than often misleading guesses.

Accepting these defects in the information base, priorities were established for commodities and factors of production using a weighted objectives method to account for growth and efficiency, equity and food security. A scoring system was used to develop the rankings[2] and this provided 16 commodities in the first priority, 13 in the second and 10 in the third as shown in the Table below.

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[2] The methodology and detailed findings are in the National Agricultural Research Strategic Plan Final Report, September, 1994.

First priority	Second priority	Third priority
Yam	Plantain	Pepper
Cowpea	Sheanut	Okra
Maize	Coconut	Rubber
Cassava	Pig	Kenaf
Sorghum	Pineapple	Coffee
Cattle	Soya	Mango
Millet	Cocoa	Tobacco
Cocoyam	Sugarcane	Avocado
Sheep	Tomato	Citrus
Goat	Sweet potato	Kola
Groundnut	Garden egg	
Fish, freshwater	Onion	
Fish, marine	Cotton	
Oil palm		
Rice		
Poultry		

On completion of the priorities, scientists were asked to submit proposals. A major requirement for the submission of these proposals was the inclusion of a log frame to enhance monitoring and evaluation.

Monitoring

Monitoring is the on-going process of gathering, analysis and reporting of data related to the implementation of an activity, for the purpose of keeping implementation moving as planned and identifying any problem or discrepancies at an early stage.

At the time of the inception of the NARP, the major tools used for monitoring were progress reports, in-house reviews and field visits. These tools cannot however be used to provide information on time and in the right form – two basic requirements for effective monitoring. They provide historical records of the year's research activities while what is needed a system that gives an up-to-date comparison of how the research system is performing against set outputs.

Thus at the inception of the NARP in 1992, INFORM (Information for agricultural Research Managers) – a computerized management information system (MIS) was adopted. INFORM was developed by the International Service for National Agricultural Research (ISNAR) based in The Hague, The Netherlands in the late 80's. Like any MIS, INFORM provides information to managers at all levels – to assist them in making timely, effective decisions for planning, directing and managing the activities for which they are responsible. An MIS provides information that is easily accessible, up-to-date and accurate.

Typically, the introduction of INFORM into any NARS by ISNAR has been through a two-week workshop based on a fictitious case study. In Ghana during the implementation of the NARP four workshops were held in 1992, 1994, 1996 and 1998 as part of efforts to introduce INFORM and

improve its implementation. Vernon (1995), 2001) suggest three criteria for assessing the implementation of an MIS. These are:

1. Evidence of MIS database files for agreed subjects e.g. scientists and experiments
2. Issue of some agreed standard MIS outputs by the MIS practitioners at each research institute e.g. directory of scientists. These outputs be provided to directors and accessible to all scientists
3. Institutionalization i.e. the use of MIS outputs in research institutes and nationally in research planning, monitoring and evaluation and number of cycles for which this has occurred.

Our experience shows that during the NARP two database files were prepared in 1993. These were updated in 1996 and 1998. Thus the first criterion was well satisfied. The second and third criteria were hardly satisfied. Based on this experience the following lessons were learnt:

❖ Implementing INFORM effectively requires a basic understanding of information management and computers.

❖ Librarians by their training in the management of information and as traditional custodians of information are better equipped to implement INFORM than any other category of workers

❖ Involve users (directors, programme coordinators, scientists) in the design and implementation of the system to enhance their commitment to its implementation, remove their fears for computerized MIS and improve its use.

❖ The two week training for INFORM practitioners should be backed by training for users. This will also help reduce their fear. The success of any MIS comes from its use.

❖ The two week training for INFORM practitioners should be backed by follow-up visits. The implementation of an MIS requires a sequence of several different interventions that go beyond a single workshop (Vernon, 1994).

In general the above observations confirm observations elsewhere that human issues e.g. training are often given lesser attention than technical issues (i.e computers) in the implementation of computer systems. Anderson et al (1993) have observed that projects often involve the building or installation of a physical product. It is very easy to become so preoccupied with this that the training and motivation of the people who will use the product is forgotten.

Similarly, the logical frame works prepared as part of project proposals could also not be used for monitoring due to lack of training for research managers.

Evaluation

Evaluation is judging, appraising, or determining the worth, value or quality of research, whether it is proposed, on going, or completed. This is done in terms of its relevance, efficiency, effectiveness and impact. The few experiences that Ghana has with evaluation of research under the NARP are

- ❖ The appraisal of proposals in 1995 by a joint Ghana Government/ World Bank team.
- ❖ Impact study of maize research and extension
- ❖ Adoption and economic impact study of cowpea agronomic research
- ❖ Impact studies of NARP Pineapple Research Project

Results from the impact studies showed that the internal rate of return for maize research and extension was between 55 and 69% while those for cowpea and pineapple were 52% and 29% respectively. These results indicate that investments in research in these three crops are desirable.

Conclusion

Improvements in the planning, monitoring and evaluation of research activities require the implementation of an MIS to provide easy access to information at the right time and in the right form.

The successful use of such an MIS however depends on training research managers (research directors, programme coordinators etc) on the of the system to obtain their commitment and remove the fears that most of them have computerized information systems.

This is currently being done under the Agricultural Services Sub-sector Investment Programme (AgSSIP).

Three impact studies carried out on maize, cowpea and pineapple show that investments in agricultural research are desirable.

5.0
PERFORMANCE MANAGEMENT – A CRITICAL ISSUE FOR SCIENTIFIC RESEARCH ORGANISATIONS IN GHANA

By

Prof. John B. K. Aheto

GIMPA

Building a Performance-Based Monitoring and Evaluation System

➢ Performance-based monitoring and evaluation (M&E) systems so as to be able to track the results produced (or not produced) by governments and other entities.

➢ And it helps focus people's attention on achieving outcomes that are important to the organization and its stake holders.

➢ It provides an impetus for establishing key goals and objectives.

➢ It can provide timely information about progress and early identification of any weaknesses.

➢ It is an essential source of information for streamlining and improving interventions to maximize the likelihood of success.

➢ It can also provide and measure over time to the status of a project, programme or policy.

➢ Organisations often have multiple projects, programs, and policies implemented at any one time, it is essential to have some means of tracking how well they are working.

➢ It helps with early identification of promising interventions that could potentially be implemented elsewhere.

➢ It provides useful information for formulating and justifying budget requests, and for allowing judicious allocation of scare resources.

What are Performance-Based Monitoring and Evaluation?

➢ Performance based on monitoring can be viewed as a continuous process of measuring progress toward explicit short results.

➢ It can provide feed-back on progress to improve performance.

➢ Evaluation is the assessment, as systematic and objective as possible, of an on-going or completed project, programme, or policy, it design implementation and results.

➢ The aim is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact and sustainability.

➢ Monitoring and focused on the achievement to specific, predetermined targets.

➢ Evaluation takes a broader view of an intervention .

➢ Evaluation deals with such questions as:

   ❖ Traditional (Implementation) M&E vs. Results-Based M&E

   ❖ Long-term, widespread improvement in society (End Outcomes)

   ❖ Intermediate effects of outputs on clients (Intermediate Outcomes)

❖ Products and services produced

❖ Tasks personnel undertake to transform inputs into outputs

❖ Financial, human, and material resources.

Ten Steps to Building a Performance –Based M & E System

Building a quality performance-based M&E system involves ten steps:

➢ Conducting a Readiness Assessment

➢ Agreeing on performance Outcomes to Monitor and Evaluate

➢ Selecting Key Indicators to Monitor Outcomes

➢ Baseline Data on Indicators-Where Are We Today?

➢ Planning for Improvement-Setting Realistic Targets

➢ Building a Monitoring and Evaluation System

➢ Reporting your findings

➢ The Role of Evaluations

➢ Using Your Findings

➢ Sustaining the M & E System Within Your Organisation.

Reasons to do Performance-Based Monitoring Evaluation

➢ It provides crucial information about performance as to whether promises were kept and goals achieved.

➢ By reporting the results of various interventions, it can promote credibility and public confidence.

➢ It can be extremely useful as a management and motivational tool.

➢ Provides crucial information about public sector performance

➢ Provides a view over time on the status of a project, program, or policy

➢ Promotes credibility and public confidence by reporting on the results of programs

➢ Helps formulate and justify budget requests

➢ Identifies potentially promising programs or practices

➢ Focuses attention on achieving outcomes important to the organization and its stakeholders

➢ Provides timely, frequent information to staff

➢ Helps establish key goals and objectives

➢ Permits managers to identify and take action to correct weaknesses

➢ Supports a development agenda that is shifting towards greater accountability for aid lending

Performance Management Determinants

➤ Organisation's Objectives; Values and Culture

➤ Recruitment

➤ Selection

➤ Training and Development

➤ Compensation Management

➤ Labour Relations

Selection of Performance Standards

In selecting performance standards, there are three basic considerations:

➤ Relevance to the objectives of the job.

➤ Freedom from contamination.

➤ Reliability of a standard or stability or consistency.

Why Performance-Appraisal Programmes Fail

In actual practice, formal performance- appraisal programmes may yield disappointing results. A number of reasons have been advanced for this fact. The primary culprits are:

➤ Multiple uses of the programme

➤ Lack of top management support

➤ Lack of job-relatedness standards

➤ Rater/appraiser bias, and too many appraisal forms to complete on each individual

Other possible reasons for the failure of performance-appraisal programmes:

➤ Managers perceive little or no benefit derived

➤ Managers dislike the face-to-face confrontation

➤ Most managers are not sufficiently skilled in conducting

➤ The judgmental process required is in conflict with the helping role of developing employees.

Performance Appraisal Methods

➤ Rating Scale of traits or characteristics.

➤ Global or a single rating of overall job performance.

➤ Essay/Narrative

➤ Work Standards

➤ Critical Incident

➤ Graphic Scale

➤ Behaviourally Anchored Rating Scale (BARS) with descriptions of behaviour along a scale, or continuum.

Other Methods of Performance Appraisal

➤ Checklist method of those statements on a list that are judged to be characteristic.

- The forced-choice method of choosing from statements, that distinguishes between successful and unsuccessful performance.
- Comparison methods
- Ranking methods

Types of Appraisal Interviews

- Tell-and-Sell Method
- Tell-and-Listen Method
- Problem-Solving Method

Improving Performance

Sources of Ineffective Performance**:**

- Company Policies and Practices
- Personal Problems
- Job Concerns
- External Factors

Key Result Areas

Key Result Areas are those aspects of a job in which it is critical to achieve success, if the overall job objective is to be achieved:

- Identify the vital elements of the job critical for job objectives
- Contribute to effectiveness – by helping us 'to do the right things'
- Focus on results rather than activities
- Focus the organisation on its key Values
- The manager and the subordinate should together identify all the Key Result Areas for the job in question
- In most management jobs these will number between six and ten.

Performance Appraisal and the Law

Many suggestions have been offered for making performance appraisal systems more legally acceptable. Some of these include:

- Deriving the content of the appraisal system from job analyses;
- Emphasising work behaviours rather than personal traits;
- Ensuring that the results of the appraisals are communicated to employees;
- Ensuring that employees are allowed to give feedback during the appraisal interview
- Training managers in how to conduct proper performance evaluations
- Ensuring that appraisals are written, documented, and retained; and
- Ensuring that personnel decisions are consistent with the performance appraisals.

Guidelines for Effective Performance Interviews

➢ Establish the objectives and scope of each interview.

➢ Establish and maintain rapport.

➢ Be an active listener.

➢ Pay attention to body language.

➢ Provide information as freely and honestly as possible.

➢ Use questions effectively.

➢ Separate facts from inferences.

➢ Recognise biases and stereotypes.

➢ Avoid the influence of "beautyism."

➢ Avoid the halo error.

➢ Control the course of the interview.

➢ Standardise the types of questions asked.

➢ Keep careful notes.

Uses of Performance Appraisal

➢ Compensation and Appraisal

➢ Staffing and Appraisal

➢ Employee Development and Appraisal

➢ Human Resource Decisions

Key Benefits of Performance Appraisal

➢ Deeper Understanding of the Job

➢ Focus is on the Real Needs of the Business

➢ Improved Communications

➢ Management Commitment

Stages in Performance Appraisal

There are five essential and major stages in performance appraisal. These are:

➢ Achieving clarity about the job to be done

➢ Setting goals

➢ Reviewing performance in the job

➢ Preparing for the performance discussion

➢ Conducting the performance discussion

Job Objective

The first stage in any system of performance appraisal must be identified and understood:

➢ The Job Objectives

➢ The Key Result Areas (KRAs)

Stage Three - Reviewing

Performance in the Job Performance appraisal must encompass the following:

➢ Must be a continuous process

➢ Regular reviews of performance motivate employees

➢ Encourage or reinforce

➢ Achievement Culture

➢ Reduce emphasis on forms

➢ Review performance against goals

➢ Encourage self-assessment

➢ Value the feedback process

➢ In dynamic organisations, the goals may be modified during the review period.

Stage Four - Preparing for the Performance Discussion

To prepare satisfactorily for a performance discussion, mangers must consider:

➢ Assessing the individual's performance in the job against goals

➢ Preparing the structure of the discussion

➢ Be specific about what helped/hindered

➢ Preparing the reviewee prior to the meeting

➢ Helping the reviewee to understand the system

➢ Developing skills of the reviewee

➢ Planning for good use of time

➢ Do not over emphasize negatives; allude to them when necessary

➢ Job focus – not 'systems' focus

Stage Five - Conducting the Performance Discussion

➢ Attitude: the manager gives the discussion the important attention.

➢ Preparation

➢ Meeting arrangements of time, notice, location

➢ Full involvement of reviewee in two-way process

➢ Reviewee's Evaluation ((self and agreed)

➢ Active Listening

➢ Promote Individual Development

➢ Honour Commitments

➢ Agree on Future Goals

➢ Do not Discuss Salary

➢ Keep a Record of the Discussions

➢ Follow-up

Career Planning

Career is defined as: "the individually perceived sequence of attitudes and behaviours associated with work-related experiences and activities over the span of a person's life"

➢ Career effectiveness is judged not only by the individual, but also by the organisation itself.

➢ Career planning involved matching and individual's career aspirations with the opportunities available in an organisation.

➢ Successful practice place equal responsibility on the individual and the organisation.

➢ Career planning needs information about career paths, expected vacancies, and position requirements.

Why is Career Planning Necessary?

➢ Forces individual to look at the available opportunities in relation to their abilities.

➢ A person is much more likely to experience satisfaction as progress is made along the career path.

➢ Identifies certain milestones along the way.

From the organisation's viewpoint, career planning has three major objectives:

➢ To meet the immediate and future human resource needs on time

➢ To better inform about potential career paths

➢ To utilise existing human resource programmes to the fullest by integrating the activities that select, assign, develop, and manage individual careers with the organisation's plan.

Who is Responsible for Career Planning?

➢ Employee's Responsibilities

➢ Manager's Responsibilities

➢ In career planning, the manager acts as a communicator, counsellor, appraiser, coach, mentor, advisor, broker, referral agent, and advocate.

Organisation's Responsibilities by:

➢ An assessment of the individual's abilities, interests, and career goals;

➢ An assessment by the organisation of the individual's abilities and potential;

➢ Communication of career options and opportunities within the organisation; and

➢ Career counselling to set realistic goals and plans for their accomplishment.

Career Counselling Requirements

➢ The activity that integrates the different steps in the career planning process.

➢ Generally, managers who are good in basic human relations are successful as career counsellors.

➢ Developing a caring attitude toward employees and their careers.

Enhancing Managers as Counsellors

Recognise the limits of career counselling; Respect confidentiality; Establish a relationship; Listen effectively; Consider alternatives; Seek and share information

6.0

DISCUSSION OF PLENARY PRESENTATIONS

Name: Dr. J. N. Asafu-Agyei

Question/Contribution: You complained about Directors inability or afraid to use 'INFORM' without providing data to support this. It is obvious you never sent a questionnaire to the Directors to find out their inability to use the INFORM. In this age of performance appraisal budgeting this must be done before, embarking on a 'New Inform Course', which might fail again.

Response: Mr. K. M. Setsoafia responded by saying the use of the output in planning M&E was very weak. Managers have fear of using the system. He added that M&E is not about justification but a learning process, what have we learnt to inform us about what we will want to do.

Name: Dr. W. A. Plahar

Question/Contribution: In assessing the relative research attention given to certain commodities, the speaker used only the number of research projects being undertaken on that commodity. I think the relative proportion of the total budget allocated to that commodity may also help in the objective assessment of the priority given to that commodity.

Response: In his response Mr. K. M. Setsoafia admitted that he had not linked well with the accounts section. He however added that it would require more information on finance, which they are in the process of gathering so it could be incorporated

Name: Clement Entsua-Mensah

Question/Contribution: To what extent did the MIS database that was developed under NARP for the M&E exercise informed the planning and execution of the AgSSIP program, especially in project selection?

Response: In responding Mr. K. M. Setsoafia explained that, the use of the outputs from MIS was very poor, because the research managers' familiarity with it is weak.

Comment: the chairman commented that there was the need to use evaluation for learning, rather than for justifying past results.

Name: Angela Dannson

Question/Contribution :

1. Clarification on definition of M&E which seems to indicate that it focuses on only inputs and outputs: The diagram in the NRI presentation listed only monitoring of activities and outputs, but M&E also includes outcomes as well.

2. Comment on a speaker referring to policy pronouncements by government on certain issues when infact little is being done in that area in research. I tried to indicate that, in this respect research is partly to be blamed because research needs to respond to the policy.

Response: In his reaction to the first question Dr. Alistair Sutherland explained that the diagram shown was based on findings from the project on current M&E of research organisations, rather than on what M&E should be, or can be doing. Organisations that have adopted a results based monitoring approach will be monitoring outcomes as well. In responding to the second comment Mr. K. M. Setsoafia disagreed and said most of the pronouncements were mere political pronouncements without any follow up action by the Government.

Name: Prof. A Ayensu
Question/Contribution: Are we ready to move into performance auditing, in addition to financial auditing?
Response: In response to this question the Deputy Director of Audit, CSIR explained that Performance Audit for now was not possible, with time the CSIR may be able to do that. Prof Aheto added that the Ghana Audit Service under a World Bank programme were training new employees and advised that the CSIR could do the same.

Name: Zane M.-Y.

Question/Contribution: People are not willing to own responsibility for performance appraisal because they fail to monitor the appraisee throughout the appraisal period.

Response: In his reaction Prof Aheto explained that the important thing is what is done with information. Issues need to be dealt with, but organisations do not accept their role in terms of providing training etc. Only blame the person not the organisation, intention is to reveal gaps, there is mutual interest in one doing well and being frank.

Name: Goski Alabi (Mrs)

Question/Contribution: Culture of everybody trying to be a nice person or the possibility of bias in appraisals. Do we have performance audits in our individual institutions? If we have performance audits, do we have internal standards or guidelines against which performance is measured or audits conducted? I believe that if we have standards and guidelines some of these problems with culture and bias will be reduced.

Response: In responding Prof Aheto explained that we do not have the courage to identify weaknesses in individuals – due to culture. Pass the buck until the person who makes the decision becomes the "bad person" – we need a better model that fits with our culture of everyone being a good person. If we have standards we will bridge the gap between abuse and values.

Name: E. Odartei-Laryea

Question/Contribution: How do we address the cultural problem of not saying "bad" things about people even though they are not performing very well. Therefore managers pass the buck but the last point where an appraisal is made and the appraiser is called the "bad person" or wicked person.

Response: In responding, Prof Aheto said the cultural dimension is determined by the end use of the results. It should be welcomed. The problem is resolved if information gathered during an appraisal is used to enhance, rather than to victimise the person. If we use gaps identified to develop individuals instead of using it to victimize people. If we do that employees will welcome appraisals at workplace. Performance measurement systems should be positive, not punitive: The most successful performance measurement systems are not "gotcha" systems, but *learning* systems that help the organization identify what works—and what does not—so as to continue with and improve on what is working and repair or replace what is not working.

Name: Dr. John Ofosu-Anim

Question/Contribution: Comments on the fact that managers or bosses are afraid to identify weakness of employee for fear of being branded as wicked or anti-progress.

Response: Prof Aheto responded by saying; the appraiser must take the responsibility. Some like to keep appraisee in the dark during the whole year, need to monitor throughout, and give feedback on an ongoing basis, so that when the annual appraisal is done there are no major surprises.

CASE STUDY PRESENTATIONS

7.0
RECENT CHANGES AS A RESULT OF INTRODUCING PERFORMANCE MANAGEMENT CONCEPTS TO THE NATIONAL BANANA RESEARCH PROGRAMME (NBRP)

Introduction

Dr. Alistair Sutherland made this presentation on behalf of the head of the NBRP, Dr Tushimewere. It provides an overview of how this research programme, which is regarded as one of the most successful in Uganda, used this pilot project to review its M&E activities and made improvements to them.

Study background

The driving need was to sharpen NBRP's internal performance management system to respond to key principles of the Programme for the Modernisation of Agriculture. This included more demand driven research and a more liberalised research system.

Diagnosis of strength and weakness in the NBRP

The diagnosis looked at three aspects:

Research capacity, Stakeholder Linkages, and Monitoring and Evaluation (M&E)

Research capacity

The programme has 65 staff, but only a small proportion of these are core staff (public servants). The remainder are employed on contracts. The programme is therefore able to expand, or reduce its staff numbers, according to the size of its programme.

Staff Strength

Category of staff	*Number*	
	Contract Staff	*Core Staff*
MSc and above	20	3
BSc Holders	12	1
Technicians	21	2
Support Staff	12	-
Total Number of Staff	*65*	*6*

Research capacity - manpower, facilities, expertise in research and development on highland bananas.

Programme management - track record in research management, generation and delivery of outputs

Dissemination – transfer of technologies to end users at pilot sites, liaison with other stakeholders

Mobilization - of resources for research

NBRP research weaknesses

Research capacity - Insufficient numbers of researchers

M&E capacity - planning, impact assessment, monitoring

Dissemination - communication with non-target farmers, scaling up technology outcomes

Linkage - with private sector

Linkages with stakeholders: strength and weaknesses

❖ *Weak links in particular with*

❖ Consumers

❖ Business operators

The programme team reviewed its M&E practices

Strength in M&E

❖ The system does give the right information when it is needed

❖ The system was developed with a well-balanced set of measures reflecting different levels of objectives in the strategic plan

❖ Project outputs easily summarised

❖ Acts on results quickly

❖ Measurable indicators defined from the clients point of view

❖ Track performance for internal operations

NBRP weakness in M&E

❖ The system does not measure all the right things

❖ The system produces more paperwork than necessary

❖ Not everyone in the organization understands the measures used to assess performance

Based on this analysis, the programme team found the scorecard perspectives useful in planning how to further strengthen its M&E. Action plans for improved M&E were developed under the 4 scorecard perspectives

❖ FINANCIAL PERSPECTIVE

❖ CLIENT/STAKEHOLDERS PERSPECTIVE

❖ INTERNAL BUSINESS PERSPECTIVE

❖ EMPLOYEE PERSPECTIVE

NBRP revisited its goal, and then developed objectives under each of the 4 perspectives.

> *Lead agency developing and promoting technologies for increased banana productivity and utilisation options for the benefit of producers and consumers*

Key performance indicators were developed for each objective. For example the 7 KPIs developed for the objective relating to client satisfaction is shown below

	Level	What are already doing?	Positive experiences of M&E in this area?	To achieve this objective, what has got to happen (Critical success factors)?	By when?	By whom?
	Objective:	The NBRP satisfactorily solves clients' problems and contributes to improving their quality of life. (M&E linked -objective) Better understanding of clients satisfaction with our products & services				
	KPIs:	[see table on previous page]				
Are we doing the right things?	Outputs:	➢ Greater exposure of products & services ➢ Evaluation of products by clients ➢ Product promotion & improvement strategy	➢ Product popularity is increasing ➢ Demand exceeds supply ➢ Needs of clients increasingly better understood	➢ Client satisfaction determined ➢ Framework to address issues related to client satisfaction ➢ Proposal approved	Spt 2003 Mar, 2003 Oct, 2002	Post-harvest & marketing team Core team Core team
	Processes (activities)	➢ Biannual review/ consultative meeting with clients ➢ Continuous surveys to evaluate products and services ➢ Biannual Follow-up visits after feedback ➢ Continuous monitoring and studying client-participation in product development ➢ Continuous review and interaction ➢ Internal review and planning meetings (whenever required)	➢ More clients getting involved in product design process ➢ Voluntary participation is increasing ➢ Follow up visits are very important in order to promote interest and action.	➢ Pilot, then expand framework ➢ Formulate a framework that addresses key client issues ➢ Analyse results of test ➢ Collect data ➢ Develop tools for identifying clients, and testing satisfaction ➢ Develop proposal ➢ Review existing procedures relating to M&E of client satisfaction (e.g. field surveys, visits, etc)	May 2003 Mar 2003 Feb, 2003 Jan, 2003 Dec, 2002 Oct, 2002 Spt, 2002	NBRP, pilot clients NBRP, pilot clients Core team All scientists Core team Core team All scientists Scientists, pilot clients
Are we doing things right?	Inputs:	➢ Increased staff time for OFR/outreach ➢ Increased participation and facilitation of extension staff ➢ Free samples distributed	➢ Increased resources spent on testing, promotion of products & services	➢ Increase budget for monitoring of client satisfaction by 50%	2005	Management

Draft Action Plan for the Client/ Stakeholder Perspective at NBRP

A process was followed to develop a delivery plan for performance measurement under each perspective. This involved listing and reviewing current M&E activities under the perspective, identifying positive experiences of M&E, identifying gaps, and deciding how to fill these gaps.

What has changed since the Exposure to the Scorecard Concept

❖ The programme identified key issues (what needs to be done differently) for each of the 4 perspectives in order to enhance its performance.

❖ Developed and is now in the process of implementing action plans to address some of the identified issues

❖ There has been a general change in researchers' attitudes towards M&E due to the exercise and the weaknesses it showed.

In developing the internal business perspective key issues were identified:-

❖ Adjustment in the way things are done is needed to get aligned to the new extension approach and other end users of research results,

❖ A more appropriate M&E system involves participatory measurement using indicators known to all players

❖ A better balance between addressing farmer demands and those of intermediate stakeholder groups (e.g. extension workers)

Key issues in developing the employee perspective.

❖ Insufficient capacity to conduct various aspects of research (e.g. biotechnology)

❖ Staff retention (in the context of liberalised extension offering higher salaries)

❖ Staff need to understand measures used to assess their performance

Key issues in developing the financial perspective

❖ Strengthening linkages with various funding institutions

❖ Keeping pace with potential shifts in the organisation (NARO re-structuring) and engaging in policy debates

Key issues in developing client /stakeholder perspective

❖ Better positioning with respect to stakeholders where linkage is weak

❖ Strengthening feedback mechanism with policy makers and planners

❖ Need for a framework to help stakeholders understand the overall performance and impact of the programme

❖ How to interface more effectively with consumers and traders

Action plans were developed for three of the perspectives

❖ Plan 1: Action plan for staff motivation (employee perspective)

❖ Plan 2: Action plan for resource accessibility to staff (employee perspective)

❖ Plan 3: Action plan for monitoring client satisfaction with products and services of the NBRP (client perspective)

Action plan 1: better understanding of client's satisfaction with products and services of the NBRP

❖ *What we were doing*

➢ Evaluation of products by clients

➢ Production promotion strategy

➢ Bi-annual review meetings and follow up visits

➢ Surveys to evaluate products

➢ Internal review and planning meetings

❖ *What we planned to do*

➢ Formulate a framework that addresses key client issues

➢ Develop tools for identifying client satisfaction

➢ Review existing procedures relating to M&E on client satisfaction

➢ Pilot, then expand framework

General changes since exposure to the score card perspectives concept

❖ The NBRP is more responsive to client/stakeholders needs and demands

❖ Programme seeks feedback on client satisfaction systematically and has a plan to do the same for employees.

❖ Programme has developed a marketing project targeting consumers and traders to strengthen linkage with these key stakeholders.

❖ Formulation of new projects provides for sharing work with partners and contracting out some research aspects

❖ Formulation of all new projects now provides for participatory M & E.

❖ Wider linkages sought with grass root farmer institutions and extension service providers to ensure wider dissemination.

Conclusion

❖ Made considerable progress towards addressing some key issues in the Clients/stakeholders perspective

❖ More needs to be done on the other perspectives.

❖ Feedback information suggests that the programme performance is improving and its impact becoming more visible.

8.0
CROPS RESEARCH INSTITUTE – INITIAL EXPERIENCES IN DEVELOPING A
PERFORMANCE MEASUREMENT FRAMEWORK (CROP PRODUCTION)

Background to CRI

In 1963, the Agricultural Research Institute was formed which housed two units - the Crops Research Unit (CRU) and Soil Research Unit. In 1964, the CRU became a fully-fledged institute, and was renamed the Crops Research Institute (CRI). In 1968, the Academy of Sciences was re-organised into the Ghana Academy of Arts and Sciences and the Council for Scientific and Industrial Research (CSIR), and the CRI became one of the institutes under the CSIR.

CRI has a broad research mandate covering all food and industrial crops[3], with the mission to ensure high and sustainable crop productivity and food security through the development and dissemination of environmentally sound technologies. This includes developing high yielding, pest and disease resistant crops, improved crop management and post-harvest practices.

The Institute is divided into 9 divisions, 6 of which address specific crop areas or production system issues; horticulture, roots and tubers, grains, crop protection, resource and crop management and post harvest. The remaining 3 divisions include technical services (biochemistry, biometry, etc.) administration and business development.

Research programmes and projects, funded by the Government of Ghana and external agencies (including CIDA, DFID, IFAD, IITA, ICRISAT, JICA, USAID) fall both within specific divisions (including maize improvement, rice technology development, legume breeding) and cut across divisions (socio-economic studies).

CRI has a total of over 800 staff (including unskilled labour) of which 169 are research or technical grade (80 research-grade staff, 49 technical officers and 40 technical assistants) and 320 non-research junior staff in various supporting services. A management board governs the Institute that meets biennially, with day-to-day activities headed by a director, assisted by a deputy-director and heads of the Institute's divisions. Monthly meetings are held between the director and heads of divisions.

Major achievements of CRI include the development and promulgation of new varieties of several crops, notably maize, cowpea and sweet potato. The stated impact of the new varieties of maize disseminated has been an increase in production from 296,000 tons in 1997 to over 1 million tons in

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[3] Except for cocoa, coffee, cola, sheanut, coconut, oil palm, sorghum and millet which are the mandated crops of other research institutions.

2001. Likewise, 70% of farmers are planting improved cowpea, with resultant production increases from 8,600 tons in 1979 to over 90,000 tons in 1996. CRI's technical training programme has led to more than 300 extension and research technicians in Ghana and the sub-region trained.

2. DIAGNOSIS OF INSTITUTIONAL AND M&E CAPACITY

The diagnosis conducted with CRI addressed three main issues:

- Existing institutional strengths and weaknesses, future opportunities and threats
- Client and other stakeholder linkages
- M&E understanding and capacity

Existing institutional strengths and weaknesses

The issues highlighted through the 'strengths' and 'weaknesses' exercise reflects the current state of CRI.

Current strengths	Current weaknesses
➢ **Human resource** (multi-disciplinary, good team work, highly skilled, sufficient quantity) ➢ **Research** (technology development, long history of research) ➢ **Dissemination** (technology transfer, training, good client relationships and linkages, attracts funding, strong reporting as verified by external assessments)	➢ **Infrastructure** (poor IT, ill-equipped library, energy, water) ➢ **Funding** (delay in disbursement of approved budgets from central government, low return from commercialisation drive) ➢ **Human resource** (allocation of staff, some motivational problems) ➢ **Systems** (poor feedback and learning mechanisms, lack of attribution of achievements)

Key issues:

- ❖ The ability of CRI to assess attributable performance: namely the delineation of responsibility/function of the CRI in doubling up as a research institute and extension service which is ambiguous, and raises issues of capacity and tensions with dedicated providers of extension services.

- ❖ Secondly, a question was raised as to how CRI can have a strong reporting system when there are poor feedback and learning mechanism.

Potential opportunities and threat

The issues raised through looking forwards at the 'opportunities' and 'threats' faced by CRI highlight a number of key issues:
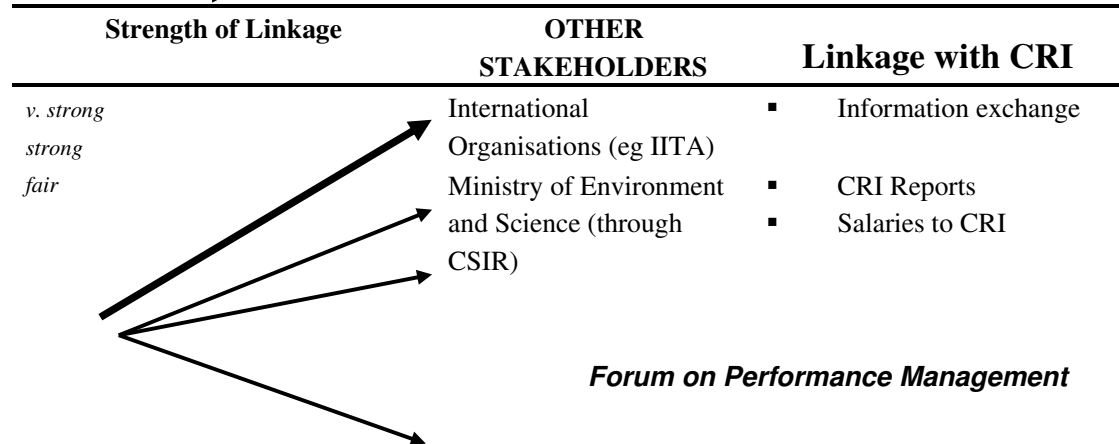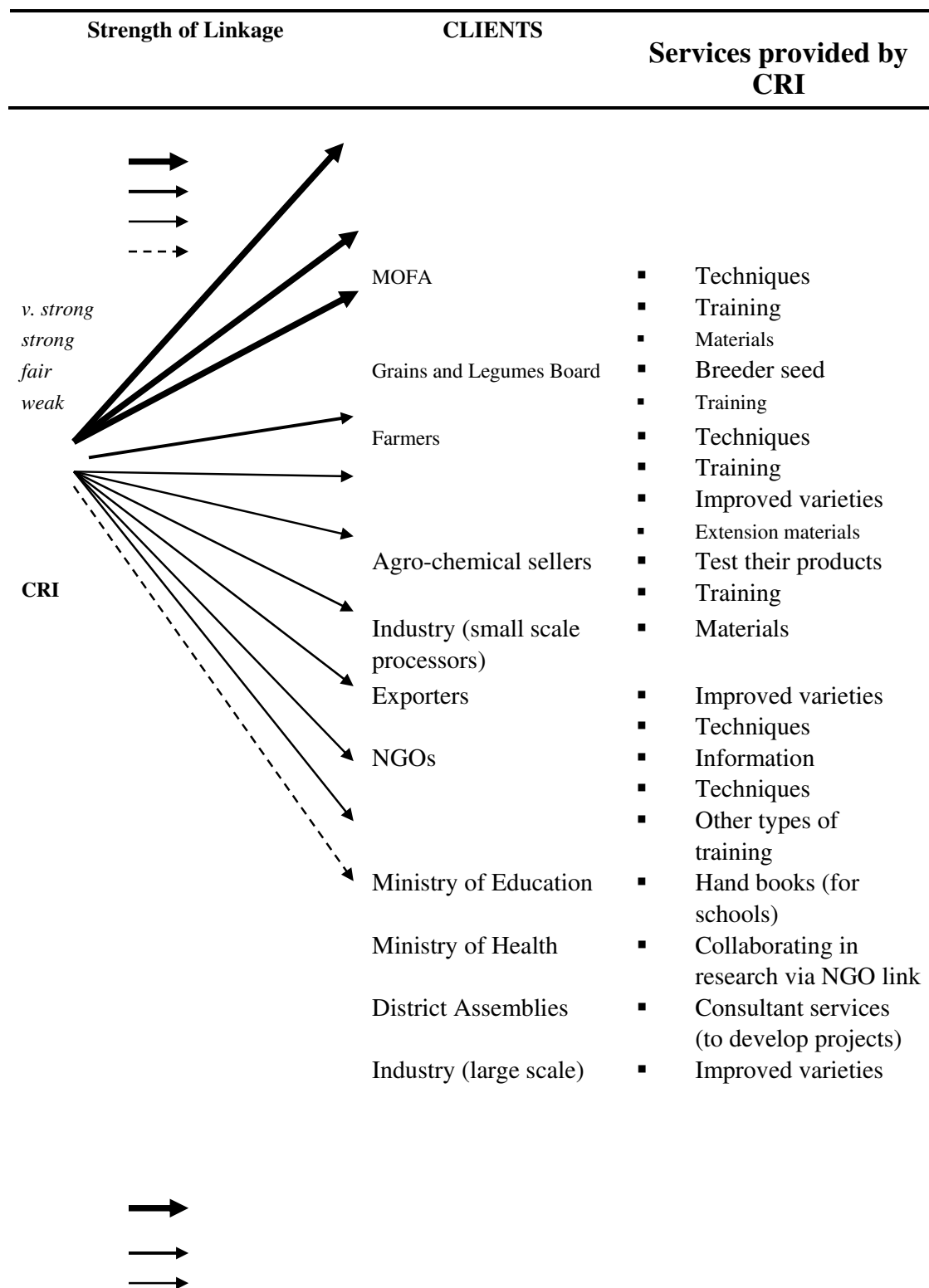
Opportunities	Threats
➢ **Product development** (for export market- non-traditional export crops)	➢ **Funding** (lack of funds released from central government, shift of funding pathway from CSIR to MOFA by external sources)
➢ **Funding base** (linking-up with industry, e.g. agro-processing and breweries; gaining funds through AgSSIP)	➢ **Conditionality** (constraints imposed by donor demands)
➢ **Dissemination/ Impact** (moving from research station to end-users; linking up with policymakers to have more influence)	➢ **Institutional change** (public sector squeeze, downsizing)
	➢ **Human resource** (Brain-drain of staff to NGOs and Universities due to poor pay and motivation)

Key issues:

❖ Firstly, CRI see there future in-part as a shift towards non-traditional markets. Developing links with industry and increasing portfolio of work on new product markets implies less of a focus on capturing CRI's traditional markets that appear to be diminishing.

❖ Secondly, there is a question as to how CRI's (business development) strategy manages the dichotomy between its two main sources of funding: (a) the government (disbursement problems coupled with declining support), and (b) external sources (the degree of fit of the funders priorities with those of CRI's mission). This is compounded by signs that the government wants to retain centralised control of donor funding, thus reducing the distinction between 'government' and 'external' sources of finance.

CRI- Client/Stakeholder linkages

A mapping exercise was conducted to look at the type and strength of linkages CRI has with clients and its' other stakeholders. This was conducted in response to the recognition that the majority of issues arising from the institutional assessment related to external agents. Within this context, clients are defined as those for whom CRI provides a direct service, other stakeholders are those with whom CRI has some form of linkage.

Strength of Linkage	CLIENTS	Services provided by CRI

v. strong
strong
fair
weak

CRI

MOFA
- Techniques
- Training
- Materials

Grains and Legumes Board
- Breeder seed
- Training

Farmers
- Techniques
- Training
- Improved varieties
- Extension materials

Agro-chemical sellers
- Test their products
- Training

Industry (small scale processors)
- Materials

Exporters
- Improved varieties
- Techniques

NGOs
- Information
- Techniques
- Other types of training

Ministry of Education
- Hand books (for schools)

Ministry of Health
- Collaborating in research via NGO link

District Assemblies
- Consultant services (to develop projects)

Industry (large scale)
- Improved varieties

Strength of Linkage	OTHER STAKEHOLDERS	Linkage with CRI

v. strong
strong
fair

International Organisations (eg IITA)
- Information exchange

Ministry of Environment and Science (through CSIR)
- CRI Reports
- Salaries to CRI

CRI	Donors (CIDA, IARCs, DANIDA, GTZ, DFID)	▪ Satisfy national objectives
		▪ Sustainability of activities/ impact
	Universities	▪ CRI Part-time teaching
	NGOs	▪ Funding for CRI
	Environmental Protection Agency (EPA)	▪ <u>**Mutual interest/ sharing**</u>

Key issues:

❖ The CRI has numerous clients, ranging from the Ministry of Food and Agriculture (MOFA) to whom it delivers a wide range of services to ones such as large scale industry whose demands upon CRI are more limited.

❖ The understanding of the term 'client' within CRI seems to be limited to that of farmers (the link with whom is understood to be very strong).

❖ CRI needs to seriously consider the implications of the fact that in some cases the major clients of its services (e.g. farmers, industry etc) are not the same agents as those who are paying CRI (e.g. Donors, Govt).

❖ Linkages between CRI and several of these clients were considered to be strong, notably MOFA and farmers – the traditional client base of CRI. However, whilst these linkages were identified as strong, at the same time, a number of these clients were also perceived to be threats, notably some donors (through how they constrained CRI in terms of mandate) and MOFA (in how they claim exclusive ownership of success/impact and represent the national point of entry for funding care of the AgSSIP).

❖ No reference was made to other sister research institutes in the stakeholder mapping exercise; and the nature of the relationship with the Ministry of the Environment and Science and the CSIR appears limited to provision of salaries and reporting requirements. This was surprising where inter-disciplinary research has been identified as one of CRI's strengths, and historically strong linkages have existed with sister institutes (e.g. Soil Research Institute).

Gauging understanding of Monitoring & Evaluation (M&E)

A brainstorm session on what constitutes good (intentionally left undefined) M&E highlighted various issues which have been grouped into what

Forum

What good M&E might do…
➢ Establish appropriate responsibilities

➢ Means of verifying indicators

➢ Go beyond what's written down- should see it

➢ Assumptions under which outputs be achieved

What good M&E might involve….
➢ Good feedback mechanisms

➢ Be linked to well-defined objectives

How good M&E might be done….
➢ **Use of the logical framework approach**
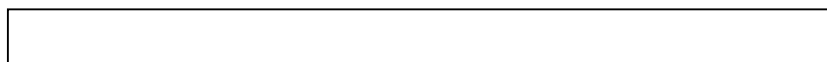
➢ Appropriate indicators put down are SMART

good M&E might do; what good M&E might involve and how good M&E might be done.

Good M&E was perceived as having a role in validating achievement and allocating responsibility in order to fulfil that achievement. Clear linkages to objectives, and strong feedback mechanisms were felt to be essential components of M&E. This may be achieved by developing robust (SMART) indicators, and using the Log Frame to construct a logical sequence of indictors that are linked to the objectives.

Diagnosing existing M&E capacity

A self-assessment diagnosis of M&E capacity was carried out by each staff member based on rating a series of 'positively-orientated' statements from 'strongly disagree' to 'strongly agree' in the context of CRI.

Summary of Monitoring and Evaluation Self-Assessment

Current M&E strengths	Current M&E weaknesses
Internal focus: M&E system	**Internal focus: M&E system**
➢ Method(s) for easily summarising outputs	➢ Not everyone in the organisation understands the measures used to assess performance
➢ Only accountable for the measures which are controlled	
➢ Act on results quickly	**Overarching**
	➢ M&E system do not measure the right things
External focus: linkages with clients	➢ M&E system does not provide a well-balanced set of measures reflecting different levels of objectives in the strategic plan
➢ Defining measures (indicators) from the communities' (clients) point of view. Reflecting participatory design of CRI's initiatives.	➢ M&E system does not always provide the necessary information when it is needed
➢ Assess client satisfaction of the outputs delivered with and for them. Reflecting good linkages and understanding of client needs	
Overarching	
➢ The M&E system (or activites) were strategically developed, rather than evolving by chance.	
➢ Internal performance as well as the delivery of outputs are tracked.	

Split opinion (between relative strengths and weaknesses)
➢ Whether or not more paperwork is produced than is necessary
➢ Whether or not as much attention is paid to non-financial measures as financial ones.

Key issues:

❖ *Internal focus: accountability*. Some doubt was cast over the the postive response regarding the extent to which staff members are accountable only for those actions for which they are responsible. The lack of clarity over the delineation between 'research' and 'extension' implies that CRI are willing to be assessed on the impact of their research on factors such as production increase, poverty reduction and the like (implied by the successful promotion of their research technologies), despite not being responsible for dissemination at a scale necessary to impact on these factors.

❖ *Internal focus: nature of information and feedback mechanisms*. Whilst it was acknowledged that outputs are easily summarised and enable responsiveness (acting quickly), questions were asked as to the extent to which the information being collected is useful (not measuring the

right things, and not everyone understands the measures), and organised in a manner that enables staff to act upon the findings in a timely way. A distinction is apparent here between specific project outputs that are well structured, and other types of information (performance-orientated) that appears to be lacking.

❖ *External focus*. The results of the self-assessment exercise revealed that 70% of staff receive feedback from clients, however, almost all of this feedback emanated from farmers through adoption rate surveys. No mention was made of the other (11) types of client listed in the stakeholder mapping exercise. Strengthening feedback mechanisms with a broader range of clients may be considered important as CRI broadens its approach to incorporate non-traditional markets.

Summary of diagnosis

CRI's institutional environment is complex, located within a large council of research institutes, with numerous clients and stakeholders. Clients and stakeholders include those who fund CRI's work, those who receive CRI's services, and those that both pay for and receive the services. Both the nature and source of funding, and the types of clients that CRI services are in some cases shifting. This situation is considered both an opportunity and threat to the institute.

The changes in CRI's institutional environment has created a drive within the institute to consider its internal systems: the nature of its core business, the process of conducting its core business, its linkages with differing client and stakeholder groups, and the way in which it secures and manages its resources (human and physical).

It is recognised that, in principle, strong performance management will enable CRI to function well as an institute, forging a strong working environment, delivering good products as demanded by various client groups, and thus being recognised as a strong centre for crops research. In this context, a number of key opportunities were identified for strengthening its existing performance management; relating to the institute's understanding and measurement of what staff are directly accountable for, information flows and feedback mechanisms both internally and with core clients.

3.   BUILDING AN APPROPRIATE PERFORMANCE MANAGEMENT SYSTEM

The approach used to structure the findings of the diagnosis, and develop a system for performance management is based around the Balanced Scorecard. This approach focuses upon four elements, or perspectives, as they relate to each other, and the overall goal of the organisation. The following section is structured to address these perspectives in turn.

Clarifying the Organisation's Goal

A strong performance management system relies upon a shared understanding of a common goal. It was therefore considered essential early on in the diagnostic needs assessment to ascertain whether or not a jointly-held goal exists. This was achieved through an exercise to review individual staff understanding of the organisation's goal.

Understanding of goal:

❖ The stated goal of CRI related in most cases to conducting effective research that will result in improved agricultural production/ food security in the country. However, the achievement of this goal relies heavily upon an efficient and effective extension service. To what extent should CRI be expected to fulfil this extension role, and/or to what extent can CRI hope to influence existing extension services to achieve this mandate, i.e. one thing is good quality demand-led research, another is improved productivity. Whilst, it was noted by CRI that extension does form part of it's role, through on-farm research with extension staff and farmers, it was acknowledged that CRI needs to be clear about where its' boundaries lies for accountability purposes.

❖ Some individuals found it difficult to distinguish between describing what they do (i.e. their day-to-day activities) and what the overall goal of the organisation is. This was felt to be due mainly to a lack of clarity over terminology, and for some, a clear sense of shared mission.

❖ One person stated that the goal is to be a centre of excellence in research, and was felt to be a well-considered view in terms of what is realistic, realisable and measurable as the primary aim of the institute.

Individual's perception of their contribution to the organisation's goal, and how this contribution is measured, were also assessed through the same exercise.

Contribution to goal

❖ Most people have defined their contribution in terms of what they do on a day-to-day basis, i.e. their activities, rather than their achievements that lead clearly to the stated goal. For example, "I conduct research", rather than stating how the research conducted contributes to the goal. This was recognised as important, as it looks at M&E at the institutional level (rather than just within projects) and involves understanding how outputs link to the goal of the institution. Further, if people feel they are contributing in a meaningful way to the goal of the organisation (i.e. clear links are established between their work area and the goal), staff motivation within the organisation is likely to be increased.

Measurement of contribution

❖ In many cases, individuals described measurements of their contribution in terms of changes beyond their direct control (e.g. improved household income as a consequence of contributing work on developing improved varieties). This suggests the need for measures which accurately reflect outputs or outcomes for which people are directly accountable- otherwise, how can someone's achievements truly be assessed and what basis for doing things differently?

❖ A lot of the measures listed are simply counts, e.g. number of farmers trained; this says little if it is considered a measure of an individual's contribution to the goal of the organisation. Further, it says nothing about the quality of the work, e.g. how effective was the training, did those trained come back and ask for further advice?

❖ There are a huge range of measures that have been stated- and it is important to determine which of these are most important at the institutional level that best represents (shows off) the institute to its clients, i.e. best demonstrates the achievements of CRI

Summary

❖ A need to consider the goal of CRI in light of many statements that suggest that CRI can (and should) directly influence agricultural production and food security which relies on intermediary organisations (most notably extension services). One person stated that the goal is to be a centre of excellence in research, and this would appear to be a well-considered view in terms of what is realistic, realisable and measurable as the primary aim of the institute (although recognised that "excellence" will need to be clearly defined). Thus, an opportunity, as a starting point, is to develop some indicators for this.

- ❖ Need to consider carefully the link between the targets of individuals (or at the level of projects) and that of the goal of the institute as a whole. Currently, people listed their contribution to the goal simply in terms of the day-to-day activities
- ❖ Measuring contributions to the goal are numerous, and in many cases do not accurately account for what they are actually doing and achieving. It is important to look both at (a) how best people can assess how they contribute to the goal, and (b) which key measures best illustrate the achievements of the institute

Conclusion

Through a group-based review of the various individual perspectives, and the use of guidance material, consensual agreement was reached:

CROPS RESEARCH INSTITUTE GOAL
To become a centre of excellence in research and development of high yielding disease/ pest resistant/ tolerant consumer accepted varieties and associated technological packages for mandated crops by the year 2010.

Developing the Scorecard Perspectives

The balanced scorecard approach considers four main perspectives of organisation performance: employee, internal business, client/ stakeholder and financial.

Employee Perspective: How can we continue to improve and create value?

Clarifying or defining objectives in this perspective involve reflecting on the performance of internal employee-related processes that drive the organisation, including forward-looking targets for continual improvement. Without employee "buy-in", a CRI's achievements are likely to be minimal. This is of particular relevance in an environment where (a) other agencies (e.g. universities and NGOs) are attracting able employees away from the public sector to potentially more lucrative jobs, and (b) where donors are looking to invest in attractive, growing organisations.

Key issues identified:
- ❖ If CRI is continue to strive to be the front-running institution in crops research, it is crucial that it retains its self-identified most valuable resource, its staff.
- ❖ Central to this is a clarification of purpose, strengthened by good communication between staff and a feeling of self-worth. Identifying and illustrating the achievements of individuals and how their work relates to the work of others in view of the goal of the institute will help achieve this.

❖ Issues that may want to be considered to achieve this include: (1) how can employee development and retention be improved? (2) what role can improved information collection and sharing play in this?

The following table illustrates the objectives and key performance indicators developed by CRI in light of these issues.

Employee Perspective	
Objective	**Key Performance Indicator**
1. Motivated staff by 2005	➢ % of staff who are satisfied with their jobs ➢ % of tasks completed on time
2. Enhanced human resources by 2005	➢ % of staff receive relevant training by 2005 ➢ % of staff still at post by 2005
3. Staff satisfied with available working conditions	➢ % of staff who are satisfied with working conditions ➢ % of staff leaving because of bad working conditions

The building of a performance management action plan to address these objectives focused on identifying what is currently being done by CRI in these areas, and within this context, considering critical factors to ensure the success of the objectives in question, and thus the organisation's goal. The action plan for the employee perspective at CRI is illustrated on the following page.

Summary: The value added from considering the Employee Perspective

It was recognised through the diagnostic self-assessment exercises that whilst CRI has strength in the quality of staff, their multi-disciplinary team working, and the effective use of systems to track some aspects of internal performance; weaknesses were identified in the motivation of staff, linked to internal allocation and external pull-factors (higher incomes in other sectors). Weaknesses identified in M&E related to a lack of shared understanding of the measures used to assess performance, and the absence of a balance of measures reflecting differing objectives.

The benefit of revising and developing a set of performance measures in this context is the extent to which CRI staff and management can better understand motivational problems, and where possible, take corrective action

DRAFT ACTION PLAN FOR EMPLOYEE PERSPECTIVE AT CRI

	Level	What are already doing?	What M&E are we already doing to assess this?	To achieve this objective, what has got to happen (critical success factors)?	By when?	By whom?
Are we doing the right things?	Objective:		Staff motivated by 2005			
	Key Performance Indicators:		% of staff who are satisfied with their jobs			
			% of tasks completed on time			
	Outputs:	➢ Staff with high morale ➢ Trained staff ➢ Tasks completed on time ➢ Staff motivated	➢ Some issues followed up	➢ Survey undertaken ➢ Staff exit report written ➢ Staff conditions reviewed ➢ Survey report presented ➢ Results & recommendations implemented	Annually	n/a
Are we doing things right?	Processes (activities)	➢ In Service training ➢ Staff welfare fund ➢ Car/ house loans ➢ Health benefits ➢ Sourcing computers and lab material	➢ Annual reporting system ➢ In-house reviews of staff performance ➢ Annual planning sessions with stakeholders	➢ Undertake staff survey of motivational issues and needs assessment ➢ Conduct staff exit surveys ➢ Undertake annual review of staff conditions benchmarked against other organisations ➢ Analyse survey reviews and recommended interventions	Annually On exit Annually Annually	Heads of divisions Management Union, staff, socio-economists Union, staff, socio-economists
	Inputs:	➢ Staff time ➢ Budget ➢ Computers and resources	N/A	➢ Staff time ➢ Resources ➢ Survey instruments ➢ Computers/ software	2003	Management Unions Socio-economists

Internal Business Perspective: *To satisfy our clients, at what internal business processes should we excel?*

The objective of this perspective is to link the client/ stakeholder perspective (to come) with the internal actions and the perspective of those responsible for meeting contractual obligations and fulfilling mandates.

The diagnostic assessment of CRI identified that most (if not all) research activities conducted by CRI are project-based. Whilst this is not a problem unto itself, what appears to be lacking is a sense of how these fit into a broader institutional framework in terms of how the institute can best position itself to function effectively.

CRI's client base appears to be changing, with opportunities opening up for links with industry (agro-processing and breweries) and export markets (for non-traditional crops) that have important implications for the business processes within the Institute. It is recognised by CRI that the organisation's structure is not currently configured in the most appropriate way to respond to the demands of this new client base.

Further, the role that CRI is playing in extension – beyond its direct mandate in research- questions the clarity (or boundaries) of where CRI should be operating to excel at its core specialism, research.

Key issues identified:
- ❖ To consider which client-base is most important to CRI currently and in the near-future, and consider how the configuration of the organisation may be best organised to respond to these clients. Intrinsic to this are strong linkage and feedback mechanisms to enable CRI to respond to these clients' needs.
- ❖ This highlights the need to better orient its internal systems and processes towards corporate objectives and goals as opposed to being led by project-based systems.
- ❖ Paying as much attention to non-financial measures as well as financial measures (e.g. whether what the institute is doing contributes to its goal, whether staff are suitably motivated) is crucial if the institute is going to move forwards. However, from the self-assessment exercise, opinion was very divided as to whether CRI was currently doing this.

The following table illustrates the objectives and key performance indicators developed by CRI in light of these issues.

Internal Business Perspective	
Objective	**Key Performance Indicator**
1. Systems developed to regularly identify the needs of clients	➢ Biannual consultative planning meetings with clients to identify their needs ➢ Minutes of meetings with client/ stakeholder needs identified
2. Developed structures for addressing clients needs	➢ Number of clients/ stakeholder needs addressed by the different divisions of CRI in the year ➢ Quality of services provided by CRI's Business Development Unit
3. Publicised human resources potential and products of CRI	➢ Number of promotional materials and activities undertaken per year ➢ Number of hits at CRI website per year
4. Improved Institute and client relationships	➢ Number of clients participating in CRI's promotional activities, e.g. open days, field days, etc. ➢ Number of stakeholders represented on CRI's management board and research committees

The performance action plan drafted for the internal business perspective can be found on the following page.

Summary: The value added from considering the Internal Business Perspective

It was recognised during the review and action plan building process that consideration and possible reconfiguration of existing business processes within CRI to respond to a changing client base will need to be a well-considered and potentially lengthy procedure. Consequently, the processes and outputs selected for the draft action plan reflect the critical steps required to assess existing client needs, and the potential changes to be made within CRI.

The approach taken reflects the needs identified during the diagnostic assessment, and is expected to be the initial phase of developing frameworks for the continual assessment of client needs and the relationship with business processes, enabling change to be effected on an ongoing basis.

DRAFT ACTION PLAN FOR INTERNAL BUSINESS PERSPECTIVE AT CRI[4]

	Level	To achieve this objective, what has got to happen (critical success factors)?	By when?	By whom?
Are we doing the right things?	Objective:	Systems developed to regularly identify and address the needs of clients		
	Key Performance Indicators:	Biannual consultative planning meetings with clients to identify their needs; Minutes of meetings with clients on client needs documented		
	Outputs:	➢ Existing systems for clients needs identification reviewed	2003	n/a
		➢ Limitations of systems addressed	2003	
		➢ Structures to intensify participatory client centred research put in place	2003	
		➢ New/ emerging major clients identified	2003	
		➢ Framework of identifying clients needs developed and identified	2003	
Are we doing things right?	Processes (activities)	➢ Review existing systems for identifying and addressing client needs	2003	Scientists & Business Dev. Unit (BDU)
		➢ Address limitations/ gaps of existing system	2003	Scientists & Business Dev. Unit (BDU)
		➢ Intensify participatory client-centred research	2003	Management
		➢ Identify new/ emerging major clients	2003	Management, scientists & BDU
		➢ Develop framework for identifying needs from existing approaches and gaps	2003	Management and scientists
	Inputs:	➢ Staff time – human resources	2003	Management
		➢ Other resources – computers, etc		Scientists

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[4] What is already being done by CRI, and how M&E is being used to assess this was considered when developing the action plan, but not written down in a format suitable for this report.

Client/ Stakeholder Perspective: *How do we appear to our clients?*

This perspective considers the organisation's performance through the eyes of a client or stakeholder, so that the institution retains a careful focus on client or stakeholder needs and satisfaction.

The CRI has numerous clients, ranging from the Ministry of Food and Agriculture (MOFA) to whom it delivers wide range of services to ones such as large-scale industry whose demands upon CRI are more limited. Linkages between CRI and several of these clients were considered to be strong, notably MOFA and farmers – the traditional client base of CRI. However, whilst these linkages were identified as strong, at the same time, a number of these clients - and their function and/or mandate were also perceived to be threats, notably some donors (due to the conditionality of funding) and MOFA (regarding the issue of ownership of results, and as the national point of entry for funding care through the AgSSIP).

A degree of complexity was recognised in defining and identifying clients and stakeholders. In some cases, the understanding of the term 'client' within CRI seems to be limited to that of farmers (the link with whom is understood to be very strong).[5]

Further, and common to many research institutes, a number of the major clients of CRI's services (e.g. farmers, industry etc) are not the same agents as those who are paying CRI (e.g. Donors, Govt). Thus, the relationship with these varying agents needs to be carefully assessed.

Key issues identified:

❖ The main opportunity rests with CRI being better able to *understand and analyse* how clients (other than farmers) perceive the Institute, specifically the quality and relevance of their services – their institutional performance. That is as opposed to basing their attempts too much on *describing* the ultimate impact of their project-based work on farmers. The current approach not only leaves CRI vulnerable in terms of plausibility, it also runs the risk of under-valuing its impacts elsewhere among the operating environments of other clients

❖ The perceived need to improve research-extension linkages is surpassed by the more imperative need to clarify the role and function of CRI and to articulate this in the context of its relationship with dedicated extension providers.

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[5] The results of diagnostic M&E self-assessment exercise revealed that 70% of staff receive feedback from clients, however, almost all of this feedback emanated from farmers. No mention was made of the other (11) types of client listed in the stakeholder mapping exercise. No reference was made to other sister research institutes in the stakeholder mapping exercise; and the nature of the relationship with the Ministry of the Environment and Science and the CSIR appears limited to provision of salaries and reporting requirements.

The following table illustrates the objectives and key performance indicators developed by CRI in the client/ stakeholder perspective

Client/ Stakeholder Perspective	
Objective	**Key Performance Indicator**
1. Better understanding of how to ensure the Institute is trusted as provider of good services by clients/ stakeholders	➢ % of respondents from independent surveys who say they trust CRI in relation to other institutes ➢ Number of clients contacting CRI for services per year
2. Better understanding of client satisfaction with our services or products	➢ Number of repeated clients requests for CRI services ➢ Levels of acceptability of CRI services and products by users
3. Institute identified as centre of excellence for agricultural research by our collaborators	➢ Number of publications in recognised journals ➢ Number of awards from local and international organisations

The performance action plan drafted for the client perspective can be found on the following page.

Summary: The value added from considering the Client/ Stakeholder Perspective:

The self-assessment exercises identified a number of issues relating to how CRI currently relates to its clients, and what its client and stakeholder base is likely to look like in the near-future. The objectives and draft action plan developed begin to address a number of these issues, focusing clearly on developing a capacity within CRI to better understand the needs and views of key clients, and thus being better able to respond to their demands.

Implicit within this approach is an initial step (not made explicit) which is a clear delineation of the major clients, both now and those that are likely in the near-future. The type of approach taken will vary depending on the client (for example, in relation to farmers in comparison with industry), but the principle remains the same.

Level	To achieve this objective, what has got to happen (critical success factors)?	By when?	By whom?
Are we doing the right things? **Objective:** ▲	Better understanding of client satisfaction and trust as a provider of good products and services		
	Key Performance Indicators: Number of repeated clients requesting for CRI services		
	Level of acceptability of CRI's services and products by clients		
Outputs:	➢ Surveys undertaken	2003	n/a
	➢ Existing channels and processes reviewed	2003	
	➢ Structures to regularly monitor client satisfaction established and implemented	2003/ bi-annually	
	➢ Feedback from clients analysed. Number of repeated clients and services requested, assessed and analysed.	2003	
Processes (activities)	➢ Analyse the quality and quantity of feedback from clients	2003	Business Dev. Unit (BDU) & socio-economists
	➢ Assess and analyse the number of repeated clients and types of services requested	2003	
	➢ Survey on client satisfaction of CRI's products and services	2003/	
	➢ Review existing channels, processes and systems of service and product delivery	biannually	Socio-economists
	➢ Implement structured developed	2003	Management and scientists
	➢ Establish a structure or system to regularly monitor client satisfaction		
		2003	Management
		2003	Management
Inputs:	➢ Staff time – human resources	2003	Management/ scientists/ BDU
	➢ Other resources – computers, etc.		

Are we doing things right?

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[6] What is already being done by CRI, and how M&E is being used to assess this was considered when developing the action plan, but not written down in a format suitable for this report.

Financial Perspective: *To succeed financially, how should we look to Donors, Government and investors from the corporate sector?*

Current strengths and weaknesses, future opportunities and threats for CRI relate to linkages with funding agencies- the Government and external stakeholders. Several difficulties exist. Disbursement problems, lower anticipated funding levels, and lack of access to some common-pool funding from or through government are compounded by the nature of donor-funding (which is not always structured around the core-areas and nature of operation of the institute) and the inability of a number of major clients to pay for services.

Problems of funding through government pay not be easily resolvable, but it is recognised that good information and feedback mechanisms will enable CRI to respond to impending or actual changes. For CRI to attract and compete for funding, there is a clear recognition that relationships with, and understanding of these funding bodies need to be well-developed. Developing links with industry and increasing the portfolio of work on new product markets implies less of a focus on CRI chasing traditional markets that appear to be diminishing.

Key issues identified:

❖ The need for a corporate framework/basis with which to help CRI staff as well as its investors better understand its overall performance and its impact as an institution if it is to attract funding on a more equally defined basis. For example, mechanisms for providing feedback to government about how its policies affect the work of CRI and its commercialisation drive.

❖ Through consultation with clients, other than farmers, the need to develop a more consistent and commonly understood basis with which to monitor and evaluate products and services as a way to improving access to growing markets associated with newer/different products.

The following table illustrates the objectives and key performance indicators developed by CRI in the financial perspective:

Financial Perspective	
Objective	**Key Performance Indicator**
1. CRI recognised as efficient user of resources	➢ Number of technology products produced per unit spent ➢ Number of research proposals funded by donors
2. Well-developed accounting system for financial resources	➢ Number of audit queries answered unsatisfactorily ➢ % of accounting reports delivered on time
3. Effective feedback and communication mechanisms established	➢ Number of feedback reports submitted ➢ Nature of feedback reports received from donors/ government
4. Structures developed for showing impact of institute	➢ Number of published reports on impact studies ➢ Number/ nature of positive feedback reports

A performance action plan has yet to be developed for the financial perspective.

Mapping objectives

The strength of the balanced scorecard approaches lies not only in the consideration of perspectives outside of the research process, but also the way in which these perspectives interrelate, and contribute to the organisation's goal. The mapping of objectives – looking at cause and effect relationships – visualises how the objectives are linked. Mapping has two purposes at this point:

❖ Firstly, as a tool to help strategize and prioritise areas for development.
❖ Secondly, once the system has been established, mapping will potentially help identify blockages, enabling corrective action to be taken.

The map presented over the page is a first attempt at identifying some of these cause-and- effect linkages at the objective level.

Key Performance Indicators (KPIs) have a crucial role to play as measures of the success of each objective, and as indicators of the likelihood of the linked objective being met. Having established and tested the key linkages between objectives, it may be necessary to review the KPIs, to see whether or not that effectively fulfils this function. If not, they made need to be adjusted or added to, or it may be considered appropriate to develop some extra KPIs to look at the interface between one or more objectives.

MAPPING OBJECTIVES ACROSS THE PERSPECTIVES – CROPS RESEARCH INSTITUTE

GOAL

To become a centre of excellence in research and development of high yielding disease/ pest resistant/ tolerant consumer accepted varieties and associated technological packages for mandated crops by the year 2010.

FINANCE

| Effective feedback and communication mechanisms established | STRUCTURES DEVELOPED FOR SHOWING | Well-developed accounting system for financial resources | CRI recognised as efficient user of resources |

CLIENT

Better understanding of how to ensure the Institute is trusted as provider of good services by clients/ stakeholders

Better understanding of client satisfaction with our services or products

Institute identified as centre of excellence for agricultural research by our collaborators

INTERNAL BUSINESS

Publicised human resources potential and products of CRI

Developed structures for addressing clients needs

IMPROVED INSTITUTE/ CLIENT RELATIONSHI

EMPLOYEE

Enhanced human resources

Motivated staff

Staff satisfied with working conditions

For example,

This snapshot of CRI's mapped objectives rests on a series of cause-and-effect assumptions; namely that if human resources are enhanced, staff motivation will improve and CRI will feel more confident in publicising it human resource capacity. Improved staff motivation and demonstrated human resource capacity is likely to lead to improved institute/ client relationships.

Internal Business	Publicised human resources potential and products of CRI ➢ # promotional materials and activities undertaken per year ➢ # hits at CRI website per year			Improved Institute/ client relationships ➢ # clients participating in CRI's promotional activities ➢ # stakeholders represented on CRI's management board and research committees
Employee	Enhanced human resources ➢ % of staff receive relevant training by 2005 ➢ % of staff still at post by 2005	Motivated staff ➢ % of staff who are satisfied with their jobs ➢ % of tasks completed on time		
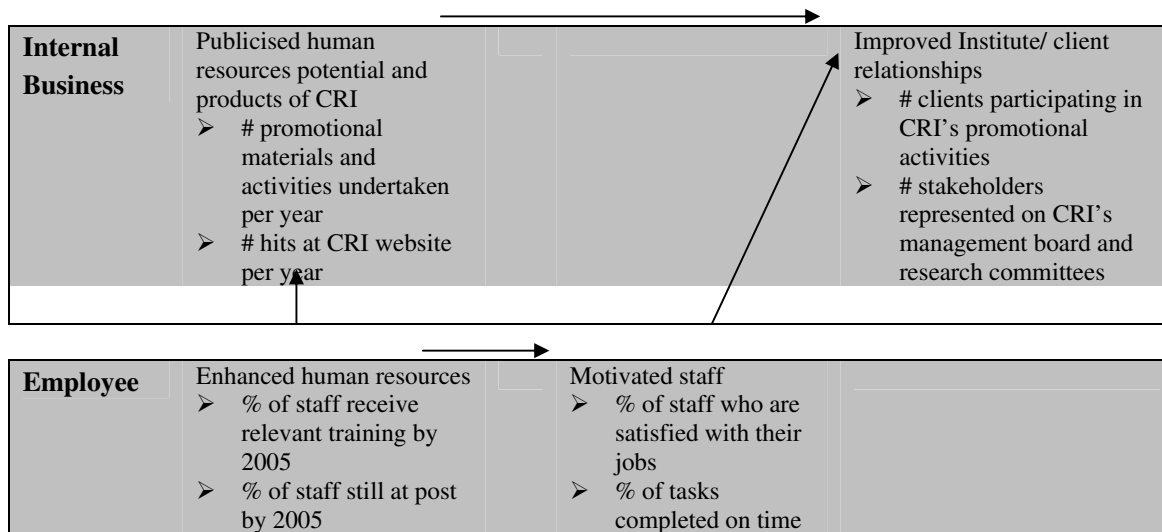
Current KPIs do not reflect these linkages, but have been designed to measure only the objective in question. The next step therefore may be to consider, for example, one or more critical indicators for measuring the cause-and-effect relationship between staff motivation and improved institute/ client relationships. Whilst this approach does not rely solely upon linkages across the perspectives (each in its own right contributing to the organisational goal), where linkages are deemed to exist, the measurement of these linkages will enable assessment of progress.

4.   CRI SUMMARY

Where CRI started:

The identification of:

* ❖ certain inherent weaknesses within the system at the organisational level: poor feedback and learning mechanisms, lack of clearly defined attributable achievements, lack of a well-balanced set of performance measures.
* ❖ certain strengths and opportunities that CRI would like to be better able to pursue: effective utilisation of the human resource base, enhanced linkages and feedback with clients (existing and potential), policy makers, and funders.
* ❖ the need to be adaptable within a changing institutional environment: through strengthening linkages with important external agents to anticipate and respond pro-actively

What CRI has done through this process:

* ❖ Considered the reconfiguration of existing activities under the framework of the balanced scorecard. Namely, a review of the organisations goal to accurately represent the work + aims of the institute, considered objectives and indicators to achieve this goal, and drafted action plans to achieve some of these objectives.
* ❖ Identified, through the use of the balanced scorecard, areas that have not received attention previously- notably methods for enhancing feedback and thus learning across several dimensions, for example, employee satisfaction and its linkages to organisation performance.

What value the process has added:

* ❖ Clarified current capacity and issues, potential opportunities and threats which reflect the existing capacity and utilisation of systems within CRI.
* ❖ Utilised a framework for facilitating a broader understanding of organisational performance.
* ❖ Development of corporate objectives and indicators that aim to bring together the core work areas of the institute.
* ❖ Identified critical success factors for achieving these objectives in view of what is currently being done in these areas. Identifying current M&E activities in these areas, and revealing gaps to be addressed through action plans.

9.0
FOOD RESEARCH INSTITUTE – INITIAL EXPERIENCES IN DEVELOPING A PERFORMANCE MEASUREMENT FRAMEWORK

Background to FRI

The Food Research Institute was established by the Government of Ghana in 1963, and incorporated into the Council for Scientific and Industrial Research (CSIR) as one of thirteen institutes in 1968.

FRI has a mandate to conduct applied research into problems of food processing and preservation, storage, marketing, distribution and utilisation in support of the food industry, and also to advise government on it food policy. The Institute's mission focuses on providing scientific and technological support to the growth of the food and agricultural sectors in the national economy in line with government policy objectives.

The Institute is divided into 7 divisions, 4 of which address technical aspects of food quality and production; microbiology, nutrition, socio-economics, chemistry and processing/ engineering. The remaining 3 divisions deal with business development, administration and finance. Research programmes and projects, fall both within specific divisions (for example, fats and oils studies, cereal/ grain/ fish processing studies) and cut across divisions (economic and consumer studies).

FRI has a total of 180 staff, of which 40 are scientists and engineers, 48 senior technical and administrative support staff, and 92 junior members of staff in various supporting roles. The Institute has a bipartite structure, with the director managing the 3 non-scientific divisions (and with overall responsibility for all division and reporting to the management board), whilst the deputy director manages the 4 scientific divisions. Quarterly review meetings occur between the divisional managers and the director/ deputy-director to present progress against objectives on programme initiatives, which in turn is reported by the director to the management board (of which there is a technical sub-committee). An Internal Management Committee constituted of staff from each division appraises proposals for consideration. The Institute manages its own finance, and reports to the CSIR board based on programme/ project outputs.

Major achievements of the Institute include the formulation of composite flours, the development of appropriate technology for micro- and small-scale food processing, and the formulation of food standards and the drafting of food laws and regulations with the Ghana Standard Board and the Ministry of Health.

DIAGNOSIS OF INSTITUTIONAL AND M&E CAPACITY

The diagnosis conducted with FRI addressed three main issues:

❖ Existing institutional strengths and weaknesses, future opportunities and threats

❖ Client and other stakeholder linkages

❖ M&E understanding and capacity

Existing institutional strengths and weaknesses

The issues highlighted through the 'strengths' and 'weaknesses' exercise reflects the current state of FRI.

Current strengths	Current weaknesses
➢ **Human resource** (good quality, technically proficient staff; multi-disciplinary approach to work)	➢ **Human resource** (poor communication between staff, remuneration, lack of training loss of staff)
➢ **Physical resource** (good laboratories, machinery and other equipment necessary to perform effectively)	➢ **Physical resource** (poor IT, ill-equipped with certain types of equipment)
➢ **Research** (high quality work on nutrient analysis, food technology, etc.; accreditation)	➢ **Systems** (overbearing bureaucracy, poor extension/ external linkages in some areas, lack of coordination, lack of commercial focus)
➢ **Dissemination** (proven track record on commercial uptake of results)	➢ **Funding** (delay in disbursement of approved budgets from central government, lack of non-government sources of funding)

Key issues:

❖ Multidisciplinary implies good communication between staff members, yet communication and coordination were identified as weaknesses within the system. The extent to which teams working on programmes and projects at FRI are working in a multi- rather than inter-disciplinary way (i.e. cross-discipline, not just different disciplines working alongside each other), is one for consideration.

❖ Similarly, commercial uptake of FRI conducted research was highlighted as strength, yet the drive towards an increasingly commercial focus is questioned.

Potential opportunities and threats

The issues raised through looking forwards at the 'opportunities' and 'threats' faced by FRI highlight a number of key issues:
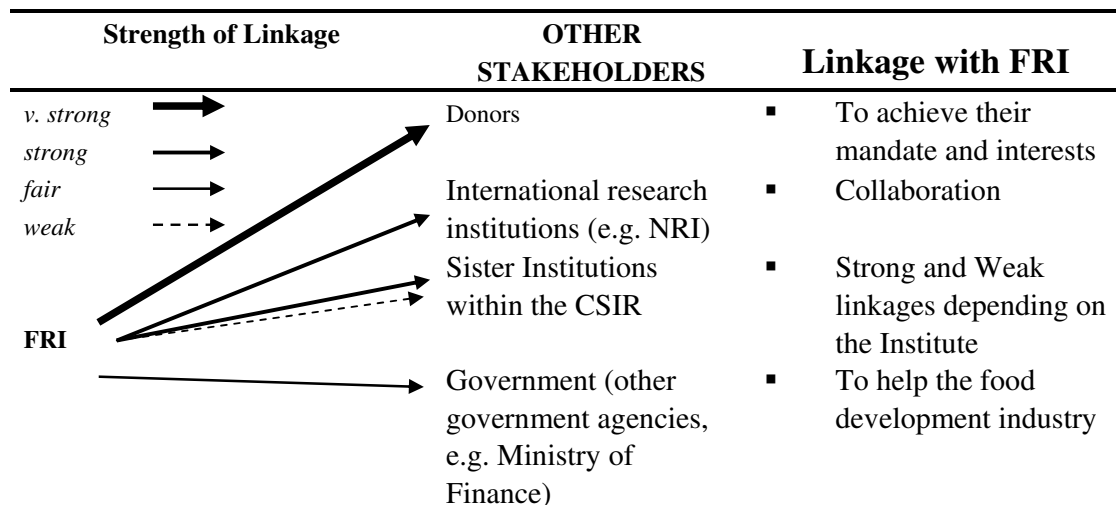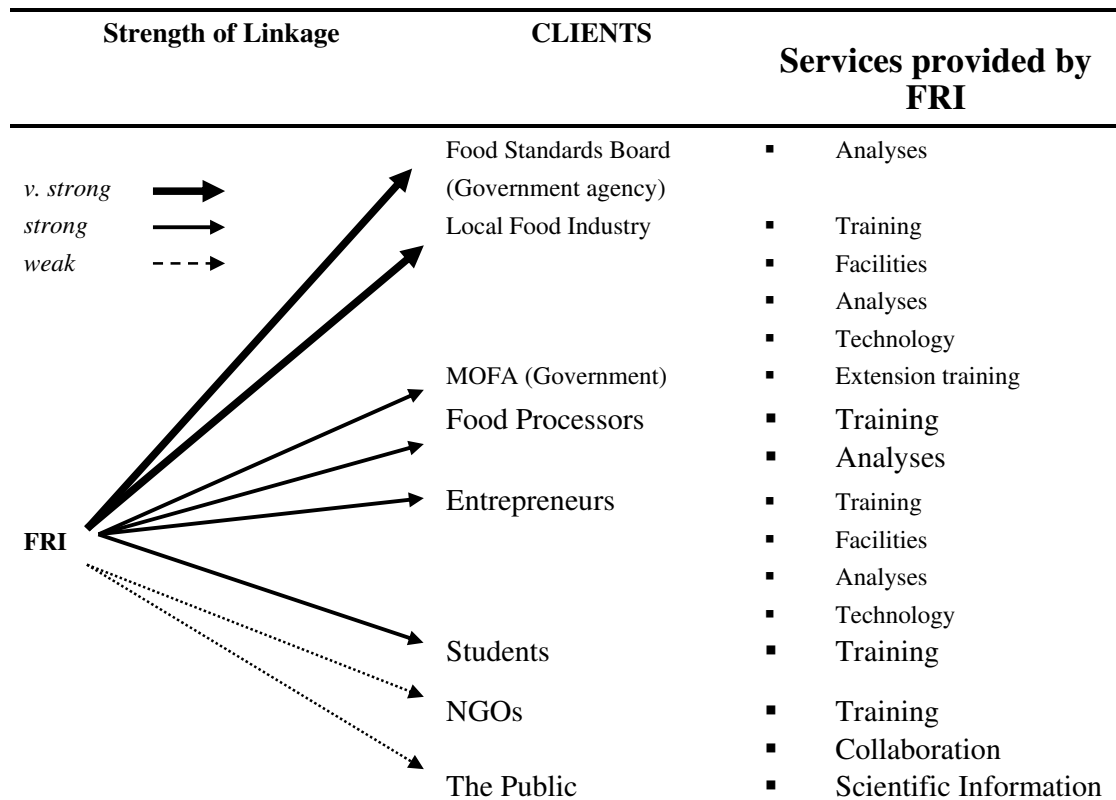
Opportunities	Threats
➢ **Research Demand** (the food needs in the country require further research that FRI is positioned to provide and are central to some of the Government priorities (e.g. poverty reduction, food processing)	➢ **Government Funding** (current situation where FRI is expected to attract 30% of funding from other sources – which it has yet to achieve – constrains the ability of the Institute to achieve its objectives. There is a fear of budget reductions from the Government)
➢ **Training Demand** (from other agencies and universities in FRI core specialisms)	➢ **Privatisation** (fear that FRI will be privatised, with potential staff cuts and associated pressures)
➢ **Funding** (further funding from external sources – donors and private agencies – through contracts and collaborative projects based on existing linkages with these agencies)	➢ **Commercialisation** (to much emphasis being placed on FRI to commercialise is eroding the focus and work patterns of staff)
	➢ **Competition** (from other institutes and the private sector)
➢ **Dissemination** (of findings to various constituents)	➢ **Human Resource** (brain-drain of staff from FRI into the private sector)

Key issues:

- ❖ The demand for FRI's core specialist research is recognised by donors and clients, yet the environment in which the Institute operates is changing, and is wary about its existing and future sustainability

- ❖ The brain-drain of staff, combined with current weaknesses of lack of motivation, poor salaries and the like, contribute to the fear that FRI may loose out in the future to competitors in the future if it does not address these issues.

- ❖ The benefit of good opportunities for FRI to attract funds to support its work is based on existing strong linkages with clients and donors, and thus off-sets some of the fears about the future of the Institute.

FRI- Client/Stakeholder linkages

A mapping exercise was conducted to look at the type and strength of linkages FRI has with clients and its' other stakeholders.   Within this context, clients are defined as those for whom FRI provides a direct service, other stakeholders are those with whom FRI has some form of linkage.

Strength of Linkage	CLIENTS	Services provided by FRI
v. strong ⟶ strong ⟶ weak - - ->	Food Standards Board (Government agency)	▪ Analyses
	Local Food Industry	▪ Training
		▪ Facilities
		▪ Analyses
		▪ Technology
	MOFA (Government)	▪ Extension training
	Food Processors	▪ Training
		▪ Analyses
	Entrepreneurs	▪ Training
		▪ Facilities
		▪ Analyses
		▪ Technology
	Students	▪ Training
	NGOs	▪ Training
		▪ Collaboration
	The Public	▪ Scientific Information

Strength of Linkage	OTHER STAKEHOLDERS	Linkage with FRI
v. strong ⟶ strong ⟶ fair ⟶ weak - - ->	Donors	▪ To achieve their mandate and interests
	International research institutions (e.g. NRI)	▪ Collaboration
	Sister Institutions within the CSIR	▪ Strong and Weak linkages depending on the Institute
	Government (other government agencies, e.g. Ministry of Finance)	▪ To help the food development industry

Forum on Performance Management

Key issues:

- ❖ FRI has numerous clients, ranging from the public to the Government Ministry of Food and Agriculture.

- ❖ Strong linkages between FRI and several of these clients were considered strong or very strong, including the local food industry, Food Standards Board, entrepreneurs, food processors, students and the MOFA. However, whilst these linkages were identified as strong, at the same time, a number of these clients were also perceived to be threats, notably the Food Standards Board and private companies who are increasingly working in competition to FRI.

- ❖ A fear was expressed about the need to be increasingly commercial within FRI in terms of attracting funds and being attractive to its clients.

- ❖ Weak linkages were identified with NGOs and the Public.

- ❖ Other stakeholders identified include donors (where the link is very strong) and other government ministries (where the weak is fair). Again, whilst a strong link with donors is identified, a threat was also perceived in the erosion of donor funding, and of donor priorities (with increasing emphasis on dissemination rather than research)

Gauging understanding of Monitoring & Evaluation (M&E)

A brainstorm session on what constitutes good (intentionally left undefined) M&E highlighted various issues which have been grouped into what good M&E might do and what good M&E might involve.

Good M&E was perceived as having a role in informing about the achievement of good results and provide reasons for the non-achievement of results. Similarly beyond results, M&E might inform about impact, and the effective/ efficient use of funds.

Effective feedback mechanisms, using clear targets reviewed in a timely manner were felt to be aspect of a strong M&E system.

> **What good M&E might do…**
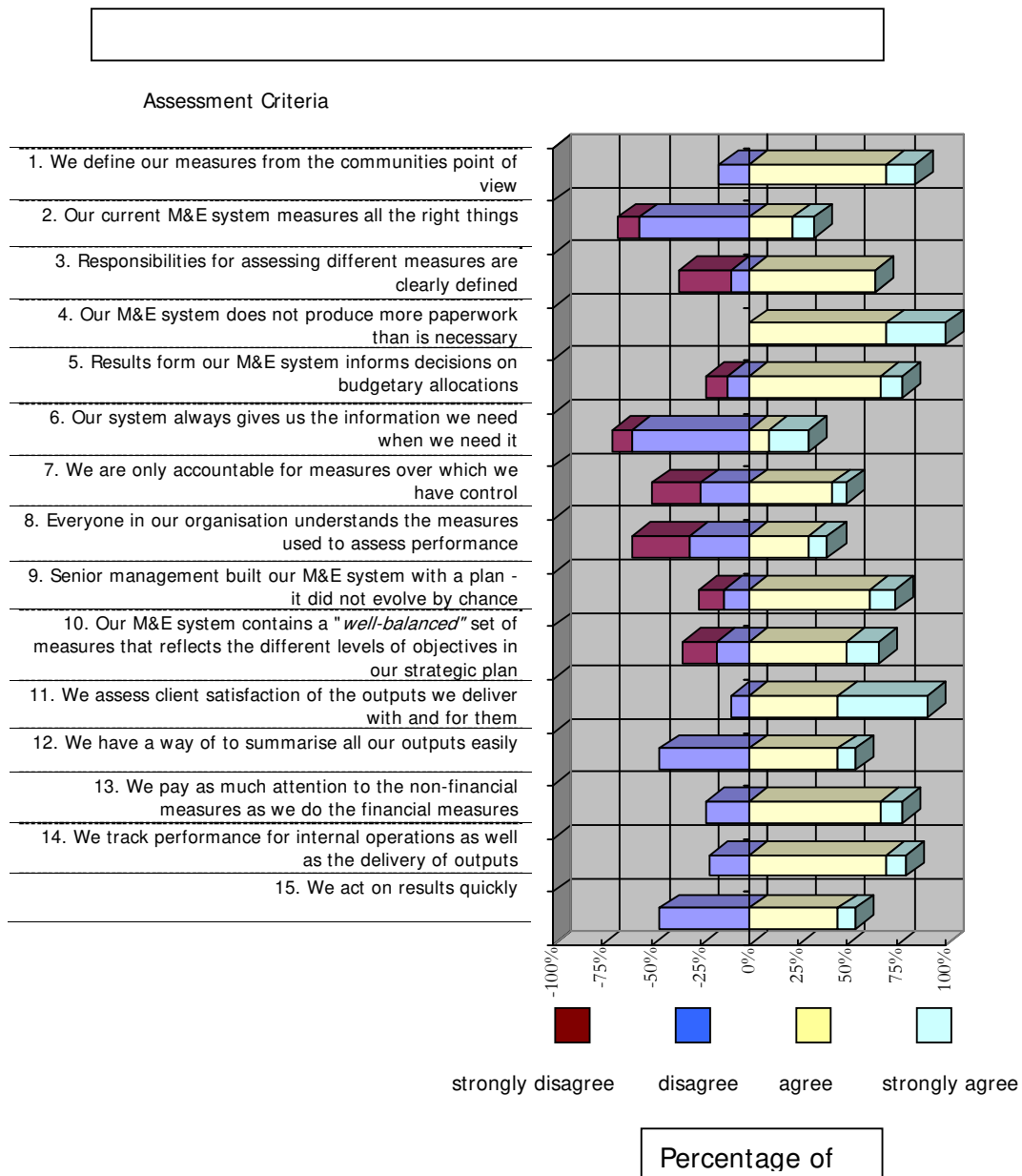> - ➢ Inform about impact
> - ➢ Achieve good results
> - ➢ Provide reasons for non-achievement
> - ➢ Reveal the use of funds
>
> **What good M&E might involve….**
> - ➢ Effective feedback mechanisms
> - ➢ Time-scale/ continuous or regular basis
> - ➢ Targets

Diagnosing existing M&E capacity

A self-assessment diagnosis of M&E capacity was carried out by each staff member based on rating a series of 'positively-orientated' statements from 'strongly disagree' to 'strongly agree' in the context of FRI.

Assessment Criteria

Criteria
1. We define our measures from the communities point of view
2. Our current M&E system measures all the right things
3. Responsibilities for assessing different measures are clearly defined
4. Our M&E system does not produce more paperwork than is necessary
5. Results form our M&E system informs decisions on budgetary allocations
6. Our system always gives us the information we need when we need it
7. We are only accountable for measures over which we have control
8. Everyone in our organisation understands the measures used to assess performance
9. Senior management built our M&E system with a plan - it did not evolve by chance
10. Our M&E system contains a "*well-balanced"* set of measures that reflects the different levels of objectives in our strategic plan
11. We assess client satisfaction of the outputs we deliver with and for them
12. We have a way of to summarise all our outputs easily
13. We pay as much attention to the non-financial measures as we do the financial measures
14. We track performance for internal operations as well as the delivery of outputs
15. We act on results quickly

-100% -75% -50% -25% 0% 25% 50% 75% 100%

strongly disagree   disagree   agree   strongly agree

Percentage of

Summary of Monitoring and Evaluation Self-Assessment

Current M&E strengths	Current M&E weaknesses
Internal focus: M&E system ➤ Responsibilities for assessment clearly defined ➤ Results from the M&E system inform budgetary decisions ➤ Outputs are easily summarisable ➤ Pay as much attention is paid to non-financial measures as financial ones.	**Overarching** ➤ M&E system does not measure the right things ➤ M&E system does not always give the right information, when it is needed
External focus: linkages with clients ➤ Measures (indicators) are defined from the communities' (clients) point of view. ➤ Assess client satisfaction of the outputs delivered with and for them. Reflecting good linkages and understanding of client needs	
Overarching ➤ The M&E system was developed with a plan in mind, rather than evolving by chance. ➤ M&E system does not provide a well-balanced set of measures reflecting different levels of objectives in the strategic plan. ➤ The system tracks the performance of internal operations as well as delivery of outputs ➤ The system does not produce more paperwork than is necessary	

Split opinion (between relative strengths and weaknesses)

➤ Whether or not everyone is accountable only for the measures under their individual control

➤ Whether or not everyone in the organisation understands the measures used to assess performance

➤ Whether or not everyone acts on results quickly

Overarching: The diagnosis identified a considerable strength in the design and functioning of the M&E system. The majority of staff[7] felt that the system was strategically developed (rather than having evolved by chance), that it reflects a balance of performance measures (measuring both internal operations and output delivery) and that it does not produce more paperwork than is necessary. Contrary to this, questions were raised as to whether or not the right things were actually being measured, and therefore whether or not the right type of information was available when needed. This conflict was highlighted by the fact that opinion was split over whether or not everyone in the organisation understands the measures used to assess performance, and whether accountability to these measures is clearly delineated. These findings suggest that whilst a system is functioning within FRI, the majority of senior staff do not feel it serves the best purpose.

External focus: linkages with clients. Strong client and stakeholder linkages (identified through the mapping exercise) are supported by strong feedback mechanisms with these same groups. The M&E diagnosis identified that the majority of staff believe that measures are defined from the clients point of view (community client group), and that client satisfaction is assessed.

Summary of diagnosis

FRI is currently in a state of flux; a public institute located within a large council of research institutes with a public-service mandate, but increasingly linked to the commercial sector, and with pressure itself to become more commercially-orientated. This is further complicated by the nature and amount of funds divested from central government, and the upstream shift of donor funding through central ministries.

This complex institutional environment is causing the institute to reconsider it's internal structure and systems to best position itself to function effectively and serve these diverse client groups. This is reflected in the understanding of the M&E function within the institute; on the one hand working effectively within the nature of FRI's traditional core business activities and internal systems, on the other, being doubted for whether or not it is still asking and answering the right questions. Further, as FRI's mandate broadens, the impact expected is also being pushed into areas potentially beyond it's direct control (i.e. beyond research into extension impact). This cause from concern is reflected in the doubt over whether FRI is accountable only for measures directly under its' own control.

FRI's current reality, and a consideration of future opportunities and threats has heightened the realisation of the need for effective performance management. The need for a clear goal, objectives, indicators and strong feedback mechanisms linked to this diverse client and stakeholder groups is

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[7] Thirteen senior scientists participated in the M&E diagnostic self-assessment exercise (representing over 50% of FRI's staff at this level).

matched by the need to ensure that staff within the institute are informed of these changes, and likewise, that management are aware of staff needs. In this context, the reconsideration of its corporate framework to help staff and investors the institute's performance and the development of a more consistent and commonly understood basis with which to monitor and evaluation the institute's work are areas identified as opportunities to pursue.

3. BUILDING AN APPROPRIATE PERFORMANCE MANAGEMENT SYSTEM

The approach used to structure the findings of the diagnosis, and develop a system for performance management is based around the Balanced Scorecard. This approach focuses upon four elements, or perspectives, as they relate to each other, and the overall goal of the organisation. The following section is structured to address these perspectives in turn.

Clarifying the Organisation's Goal

A strong performance management system relies upon a shared understanding of a common goal. It was therefore considered essential early on in the diagnostic needs assessment to ascertain whether or not a jointly-held goal exists. This was achieved through an exercise to review individual staff understanding of the organisation's goal.

Understanding of goal

❖ Differences in individuals' understanding of the goal of FRI reflected differing expectation of what the Institute may be able to achieve. This ranged from conducting efficient and profitable research to improving the food security of the country.

❖ Two main themes came out of identifying the goal of the institute: (1) that the focus is increasingly on commercially-focus research, and (2) that the role of FRI is to support the food industry in its various forms.

Individual's perception of their contribution to the organisation's goal, and how this contribution is measured, were also assessed through the same exercise.

Contribution to goal & measurement of contribution

❖ Some individuals found it difficult to distinguish between describing what they do (i.e. their day-to-day activities) and how what they do contributes to the overall goal of the organisation. This may reflect a lack of sense of mission, i.e. what an individual's contribution is to an overall goal.

❖ Considerable variations in the ways in which individuals' contributions to the goal are measured. Two issues arise from this: (1) the extent to which measurements accurately reflect the work individuals are engaged in (e.g. one individual is conducting studies in contributing to the goal of the institute, and this is measured by improvement in the income levels of clients- a disjuncture appears here. One is not measuring the other). (2) which of these measures are most important at the institutional level to best represent the institute to its clients, i.e. to best demonstrate the achievements of FRI

Summary

❖ Through this exercise it was recognised that FRI needed to reconsider the goal of the institute, how individuals' outputs directly contribute to this goal, and how best these contributions can be assessed. The perceived benefit of conducting an exercise to achieve would be to get a common sense of purpose, improved understanding of others' work areas, and where the linkages exist between work areas.

Conclusion

Through a group-based review of the various individual perspectives, and the use of guidance material, consensual agreement was reached:

FOOD RESEARCH INSTITUTE GOAL
To be a centre of excellence that conducts market-orientated research and provides accredited technical services to the food industry by 2008.

Developing the Scorecard Perspectives

The balanced scorecard approach considers four main perspectives of organisation performance: employee, internal business, client/ stakeholder and financial.

Employee Perspective: How can we continue to improve and create value?

Clarifying or defining objectives in this perspective involve reflecting on the performance of internal employee-related processes that drive the organisation, including forward-looking targets for continual improvement. Without employee "buy-in", an FRI's achievements are likely to be minimal. This is of particular relevance in an environment where (a) other agencies (e.g. universities and NGOs) are attracting able employees away from the public sector to potentially more lucrative jobs, and (b) where donors are looking to invest in attractive, growing organisations.

Key issues identified:

❖ Good quality, technically proficient staff were identified as one of the key strengths of FRI. However, key weaknesses reflected poor communication between staff, poor remuneration leading to a lack of motivation. One or more of these factors has resulted in the 'brain-drain' of staff away from FRI to the private sector and other institutions. This 'brain-drain' is also perceived to be a big threat for the future of FRI.

❖ Lack of a consistency of understanding was highlighted in the self-assessment exercise, with individuals' unclear about the measures used to assess performance. Whilst the promotion process is clear, the measures used to assess institutional performance (and thus a sense of common purpose) are not.

❖ If FRI is continue to strive to be the front-running institution in food research, it is crucial that it retains its self-identified most valuable resource, its staff.

❖ Central to this is a clarification of purpose, strengthened by good communication between staff and a feeling of self-worth. Identifying and illustrating the achievements of individuals and how their work relates to the work of others in view of the goal of the institute will help achieve this.

The following table illustrates the objectives and key performance indicators developed[8] by FRI in light of these issues.

Employee Perspective	
Objective	**Key Performance Indicator**
1. Trained and focused staff	➢ X percent of research scientists have Ph.D degrees by 2008. ➢ x percent of technicians have at least Higher National Diploma by 2008. ➢ At least x percent of scientific and support staff understand their duties and responsibilities.
2. Requisite facilities in place	➢ Equipment for carrying out x number of different analysis are available by 2008.

The building of a performance management action plan to address these objectives focused on identifying what is currently being done by FRI in these areas, and within this context, considering critical factors to ensure the success of the objectives in question, and thus the organisation's goal[9]. The action plan for the employee perspective at FRI is illustrated on the following page. No action plan has yet been drafted to address this perspective.

Summary: The value added from considering the Employee Perspective

The diagnosis relating to this perspective highlighted strengths and weaknesses and differences of opinion amongst staff with regard to the status of employees and the trends regarding employment. The lack of effective systems to provide feedback both to staff and management on staff contribution was highlighted through the issues of poor communication and lack of consistent understanding. Whilst there was not time during the workshop to develop an action plan under the objectives for this perspective, it is recognised that a review of existing systems needs to be conducted to understand more comprehensively where gaps exist, and how to enhance information flows amongst staff and between staff and management.

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[8] Section 1.4 describes the methodology and process used for developing objectives and key performance indicators.
[9] Section 1.4 describes the methodology and process used for developing action plans

Internal Business Perspective: *To satisfy our clients, at what internal business processes should we excel?*

The objective of this perspective is to link the client/ stakeholder perspective (to come) with the internal actions and the perspective of those responsible for meeting contractual obligations and fulfilling mandates.

Key issues identified:

❖ Effective feedback mechanisms were highlighted as a weakness in the diagnosis ("not always getting the information that is needed, when we need it"). Thus, whilst the Institute has strong linkages with clients, and a strong staff-base, the implication is that business processes are not necessarily reflecting client or stakeholder needs in the most effective way. This was reflected in comments on the existing internal weaknesses at FRI, including poor communication between staff and lack of motivation (in some cases), perhaps reinforced by a lack of common purpose reinforced by projectisation.

❖ In terms of FRI's relationship with its' client base, an imbalance was identified between the importance attached to identifying the needs of farmers, on the one hand, and understanding and being able to respond to the needs of other client groups on the other. In view of the shift in FRI's client base towards private sector entities, and a changing relationship with government and donors, FRI's recognises the need to have a research focus and processes that reflect these needs.

The following table illustrates the objectives and key performance indicators developed by FRI in light of these issues.

Internal Business Perspective	
Objective	**Key Performance Indicator**
1. Quality research carried out	➢ X number of publications in international journals
2. Demand driven technologies developed	➢ X number of appropriate technologies developed ➢ X number of patents.
3. Quality service delivered to clients	➢ X number of queries raised by internal audit of laboratory procedures ➢ X percent of FRI analytical results sent for verification confirmed by reputable accredited laboratories
4. Services timely delivered to clients	➢ X percent of FRI analytical results released to clients on schedule

The performance action plan drafted for the internal business perspective can be found on the following page.

Summary: The value added from considering the Internal Business Perspective

The principal focus within this perspective has been to consider the extent to which FRI's internal business processes both reflect and address the demand for their services. The action plan drafted to address the specific objective "demand-driven technologies developed" reflects both the existing and required steps that need to be taken. Whilst the internal processes are currently reasonably strong, the gaps identified relate to feedback mechanisms: knowledge of clients utilisation of products and services, and clients' perceptions of FRI's products, services and delivery process.

The approach taken in developing the action plan has been iterative, reformulating the framework to suit the process of illustrating existing activities and systems, and determining requirements.

Level	What are we already doing?	What M&E are we already doing to assess this?	Current frequency	M&E Need	By whom?
Objective:	Demand-driven technologies developed				
Key Performance Indicators:	X number of appropriate technologies developed				
	X number of patents.				
Outputs:	➢ Highly skilled staff	➢ Training needs assessments	➢ Annually	➢ Annually	➢ Administration Head
		➢ Staff appraisals			
		➢ Staff promotions			
	➢ Manuals on available technologies	➢ Monitoring of clients using manuals	➢ Nil	➢ Annually	➢ Client Service Unit
	➢ Patents		➢ Nil	➢ Annually	
	➢ Technologies commercialised	➢ Nil	➢ Nil	➢ Bi-annually	➢ Client Service Unit
		➢ Market survey			➢ Client Service Unit
Processes (activities)	➢ Specialised training for staff	➢ Training needs assessments	➢ Annually	➢ Annually	➢ Management
		➢ Staff appraisals	➢ Annually	➢ Annually	➢ Management
		➢ Staff promotions	➢ Annually	➢ Annually	➢ Council
	➢ Documentation of technologies	➢ Periodic staff audit	➢ Quarterly	➢ Quarterly	➢ Publications unit
	➢ Preparation of technology manuals	➢ Nil	➢ Nil	➢ N/A	
	➢ Market surveys	➢ N/A	➢ Nil	➢ Monthly	➢ Client Service Unit
Inputs:	➢ Funds/ Staff/ Equipment/ Research methods				

Are we doing the right things?

Are we doing things right?

Forum on Performance Management

Client/ Stakeholder Perspective: *How do we appear to our clients?*

This perspective considers the organisation's performance through the eyes of a client or stakeholder, so that the institution retains a careful focus on client or stakeholder needs and satisfaction.

The diagnosis revealed that FRI has numerous client groups and stakeholders. FRI's links to several of these clients are strong, implying good feedback mechanisms with FRI understanding the needs of these groups, and conversely, these groups appreciating the services or products delivered by FRI. However, a number of these clients were also perceived to be threats, notably the Food Standards Board and private companies who are increasingly working in competition to FRI. A fear was also expressed about the need to be increasingly commercial within FRI in terms of attracting funds and being attractive to its clients.

A similar pattern was found with other stakeholders, notably donors (where the link was identified as very strong) and other government ministries (where the weak is fair). The strong link with donors was counteracted by the perception that donor funds are diminishing, or being re-directed through MOFA which presents barriers to access, and that donor priorities are shifting away from research towards dissemination which challenges the role and managed of the Food Research Institute.

Key issues identified:

❖ There appears to be an opportunity for FRI to better position itself with respect to its clients and stakeholders. Whilst strong linkages exist, FRI is facing increasing pressure to commercialise, and is finding itself in competition with other institutions working in the same field.

❖ Thus, for FRI to remain at the forefront of the food research industry, favoured by the clients of its research, a number of key questions need to be considered:

1. How do we want our clients/ stakeholders to view us?
2. Has the design of existing monitoring activities incorporated client/ stakeholder input?
3. Do our existing measures for M&E and reporting reflect the expectations of varying clients/stakeholders (e.g. provide relevant, accessible, accurate, clear and timely information?)

❖ Further issues to be considered may include how FRI relates to its weaker linkages, i.e. the public (what else other than the provision of scientific information is important?), and the NGOs (as a potential source of collaborative work)

The following table illustrates the objectives and key performance indicators developed by FRI in the client/ stakeholder perspective

Client/ Stakeholder Perspective	
Objective	**Key Performance Indicator**
1. Clients satisfied with technologies developed	➢ X percent of technologies adopted.
2. Accredited service provider	➢ X number of analytical methods accredited to ISO 17025.
3. Reliable services provided	➢ X percent of clients satisfied with timeliness, responsiveness and quality of service. ➢ X percent of major clients retained. ➢ X number of complaints in a year.
4. Cost effective services provided	➢ X percent of FRI charges competitive to charges of similar laboratories.

The performance action plan drafted for one objective of the client perspective can be found on the following page.

Summary: The value added from considering the Client/ Stakeholder Perspective:

The self-assessment exercises identified a number of issues relating to how FRI currently relates to its clients, and what it's client and stakeholder base is likely to look like in the near-future. The objectives and draft action plan developed builds on existing mechanisms to outline a strategy for strengthening FRI's engagement with clients and demonstrate the achievement of certain industry standards.

The draft action plan for objective 2. (accredited service provider) developed represents an initial framework for considering the type of critical factors that need to be achieved if the objective is to be satisfied. It is recognised that this is not a time bound objective in itself, but requires continual actions to maintain this standard, highlighting the importance of mechanisms for reviewing progress towards, and maintenance of this standard as one objective of four in the client/ stakeholder perspective. The further development of this, and other action plans (for the other three objectives in the client perspective) may make it necessary to review the objectives (to reflect on whether or not they aid FRI in achieving the goal) and key performance indicators, to ensure that they suit the criteria of effectively measuring the objective. Addressing the other objectives may require a delineation of the client and stakeholder groups, recognising that the nature of the products and services provided, and of the linkages vary accordingly.

	Level	What are already doing?	What M&E are we already doing to assess this?	To achieve this objective, what has got to happen (Critical success factors)?	By when? Already	By when? Require	By whom?
Are we doing the right things?	Objective: Accredited service provider						
	Key Performance Indicators: X number of analytical methods accredited to ISO 17025.						
	Outputs:	➢ Trained staff in ISO 17025 ➢ Quality manual produced ➢ Methods manual produced ➢ Procedures/ Instructions ➢ Calibrated equipment ➢ Proper documentation	➢ Periodic internal audit				
Are we doing things right?	Processes (activities)	➢ Engage consultant ➢ Staff training ➢ Write quality manual ➢ Write other manuals ➢ Prepare forms/ documentation ➢ Audit procedures ➢ Implement procedures ➢ Calibrate equipment	➢ Periodic internal audit	1. Periodic internal audit 2. Management review 3. Review by accreditation body 4. Client acceptance/ perception survey 5. Meeting with clients	1. Once 2. None 3. None 4. None 5. None	1. Quarterly 2. Annually 3. Biannually 4. Biannually 5. Biannually	
	Inputs:	➢ Funds ➢ Consultant ➢ ISO 17025 standard ➢ Metrology Units ➢ Staff ➢ Lab methods ➢ Equipment	N/A	Staff Resources 1. – 1. Cedis n 2. – 2. Cedis n 3. – 3. Cedis n 4. n person/ 4. Cedis n hours 5. – 5. Cedis n	1. Quarter 2. Annually 3. Biannually 4. Biannually 5. Biannually		1. G.S.B 2. FRI 3. U.K. 4. FRI 5. FRI

Financial Perspective: *How do we want to appear to Donors, Government and investors from the corporate sector?*

The pressures on FRI's finances come from both from the drive to be more commercially orientated, thus seeking clients and linkages with industry or the private sector more broadly, and due to disbursement difficulties from central government coupled with the re-routing of donor funds through central government agencies.

Internal and external competition for resources has re-emphasised the need for strong internal systems (efficient use of resources, transparent financial procedures) and improved relationships and understanding of clients and key funding stakeholders.

Key issue identified:

▪ The need for a corporate framework/basis with which to help FRI staff as well as its investors better understand its overall performance and its impact as an institution if it is to attract funding on a more equally defined basis. For example, mechanisms for providing feedback to government about how its policies affect the work of FRI and its commercialisation drive.

The following table illustrates the objectives and key performance indicators developed by FRI in the financial perspective:

Financial Perspective	
Objective	**Key Performance Indicator**
1. Resources efficiently utilised	➤ Statements of account submitted on schedule ➤ X number of audit raised on statements of accounts by external auditors and donors.
2. Finances transparently managed	N/A

A performance action plan has yet to be developed for the financial perspective.

Summary: The value added from considering the Financial Perspective:

FRI considered the financial perspective from an internal systems viewpoint, focusing upon the utilisation and management of financial resources. As an approach, this differed from a number of the other case study organisations, who viewed it in terms of how their institute relates to financial stakeholders (government, donors and paying clients).

The perspective chosen by FRI is based on the understanding that a sound financial system provides both a good internal view of the state of the institute, and thus can be presented to financial donors as evidence of the strength of the institute. Whilst this approach does not directly address the constraints identified, it is expected that the indicators developed will be utilised within a broader framework which reviews the relationship between funders and FRI.

Mapping objectives

The strength of the balanced scorecard approaches lies not only in the consideration of perspectives outside of the research process, but also the way in which these perspectives interrelate, and contribute to the organisation's goal. The mapping of objectives – looking at cause and effect relationships – visualises how the objectives are linked. Mapping has two purposes at this point:

- ❖ Firstly, as a tool to help strategize and prioritise areas for development.
- ❖ Secondly, once the system has been established, mapping will potentially help identify blockages, enabling corrective action to be taken.

The map presented over the page is a first attempt at identifying some of these cause-and- effect linkages at the objective level.

Key Performance Indicators (KPIs) have a crucial role to play as measures of the success of each objective, and as indicators of the likelihood of the linked objective being met. Having established and tested the key linkages between objectives, it may be necessary to review the KPIs, to see whether or not that effectively fulfil this function. If not, they made need to be adjusted or added to, or it may be considered appropriate to develop some extra KPIs to look at the interface between one or more objectives.
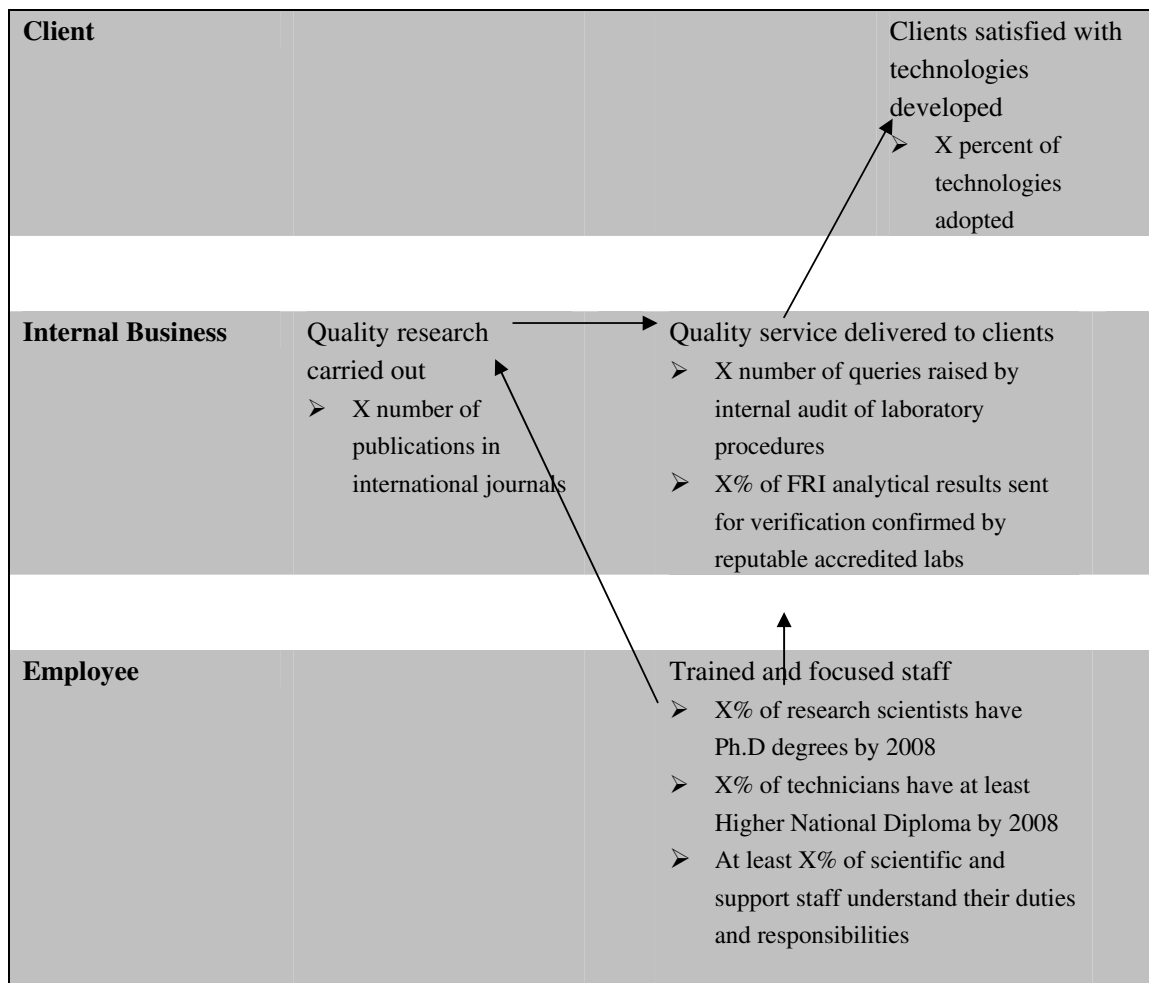
MAPPING OBJECTIVES ACROSS THE PERSPECTIVES – FOOD RESEARCH INSTITUTE

Forum on Performance Management
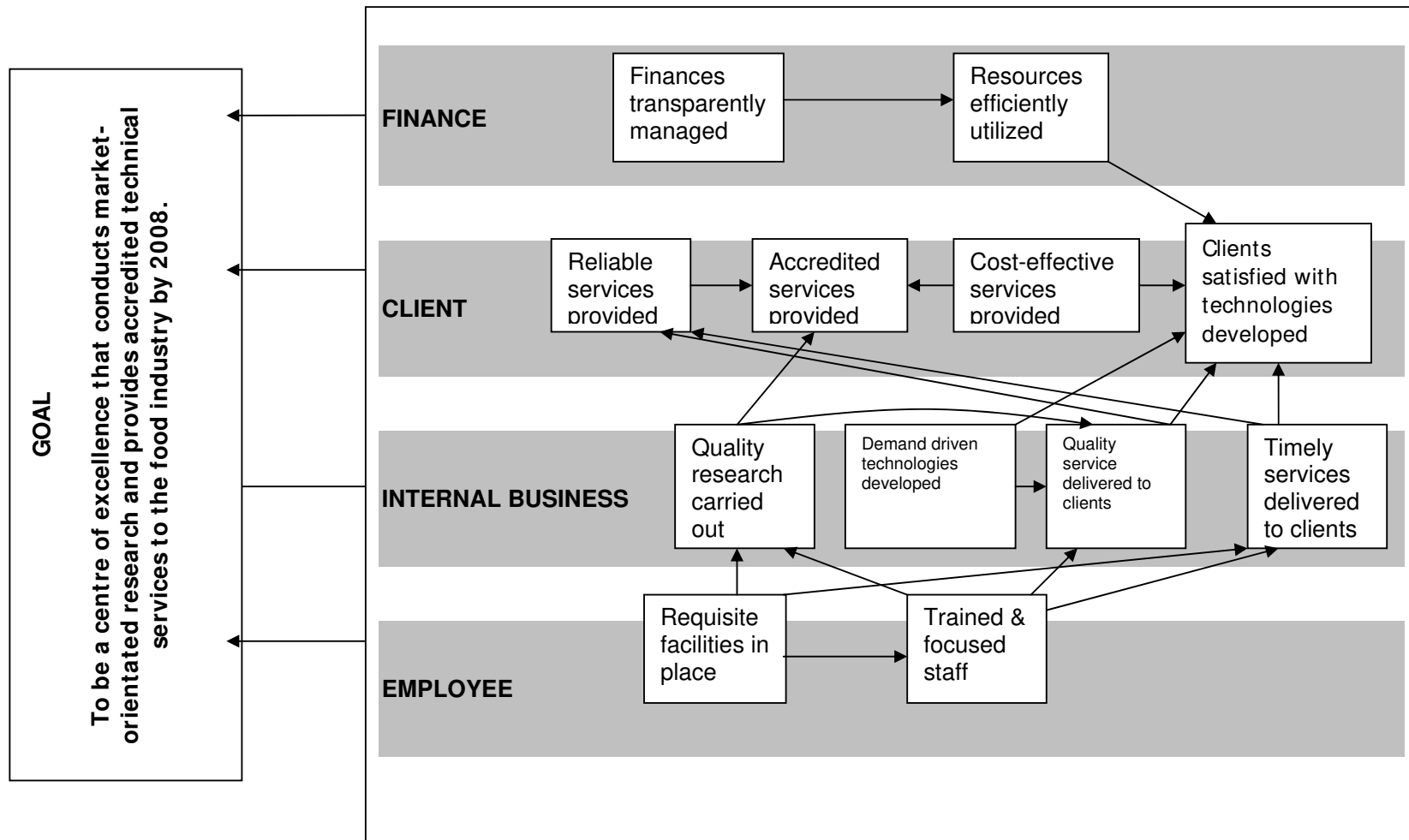
For example,

This snapshot of FRI's mapped objectives rests on a series of cause-and-effect assumptions; namely that if staff are trained and focused, they will produce high quality research delivered to clients, who in turn will be satisfied with the products. Whilst this is somewhat linear and simplistic, it serves two purposes. Firstly, to test the assumptions on which linkages are based, ensuring that the theory behind achieving a particular objective through certain actions (critical success factors) holds true. Secondly, it enables a consideration of how best the goal of the institute can be achieved, i.e. what other things may need to happen.

Client			Clients satisfied with technologies developed
			➤ X percent of technologies adopted
Internal Business	Quality research carried out ➤ X number of publications in international journals		Quality service delivered to clients ➤ X number of queries raised by internal audit of laboratory procedures ➤ X% of FRI analytical results sent for verification confirmed by reputable accredited labs
Employee			Trained and focused staff ➤ X% of research scientists have Ph.D degrees by 2008 ➤ X% of technicians have at least Higher National Diploma by 2008 ➤ At least X% of scientific and support staff understand their duties and responsibilities

Current KPIs do not reflect these linkages, but have been designed to measure only the objective in question. The next step therefore may be to consider, for example, one or more critical indicators for measuring the cause-and-effect relationship between quality service delivered to clients and clients satisfied with technologies (how are client views incorporated into the process?). Whilst this approach does not rely solely upon linkages across the perspectives (each in its own right contributing to the organisational goal), where linkages are deemed to exist, the measurement of these linkages will enable assessment of progress.

4. FRI SUMMARY

Where FRI started:

The identification of:

- ❖ Certain inherent weaknesses within the system at the organisational level: poor communication between staff, appropriate information not always available, burdensome bureaucracy
- ❖ Certain strengths within the system at the organisational level: high quality staff and (in-general) equipment, good internal systems for measuring the research process
- ❖ A need to have systems that are sufficiently robust to incorporate a better understanding of the external environment (clients and donors) into the internal processes of the institute.

What FRI has done through this process:

- ❖ Considered the reconfiguration of existing activities under the framework of the balanced scorecard. Namely, a review of the organisations goal to accurately represent the work + aims of the institute, considered objectives and indicators to achieve this goal, and drafted action plans to achieve some of these objectives.
- ❖ Identified, through the use of the balanced scorecard, areas that have not received attention previously- notably methods for enhancing feedback and thus learning across several dimensions, for example, employee satisfaction and its linkages to organisation performance.

What value the process has added:

- ❖ Clarified current capacity and issues, potential opportunities and threats which reflect the existing capacity and utilisation of systems within FRI.
- ❖ Utilised a framework for facilitating a broader understanding of organisational performance.
- ❖ Development of corporate objectives and indicators that aim to bring together the core work areas of the institute.
- ❖ Identified critical success factors for achieving these objectives in view of what is currently being done in these areas. Identifying current M&E activities in these areas, and revealing gaps to be addressed through action plans.

5.0   The Way Forward

Measurement is not an end in itself, but a tool for more effective management. The results of performance measurement will tell you what happened, not why it happened, or what to do about it. In order for the FRI to make effective use of the results of performance assessment, it must be able to make the transition from assessment to management. It must also be able to anticipate needed changes in the strategic direction of the Institute, and have a methodology in place for effecting strategic change. Successful accomplishment of these two tasks represents the foundation of good performance management. Both of these tasks can be greatly facilitated by use of the BSC. In other words, besides simply assessing performance, the BSC provides a structured framework for performance management. Measurement has provided the basis for the FRI to assess how well it is progressing towards its predetermined objectives, helped it identify areas of strength and weakness, and decided on next steps, with the ultimate goal of improving organizational performance. It has also provided the data necessary for showing how activities support broader goals, and provided the data necessary for supporting requests for additional resources or for supporting new initiatives. But it is the effective use of this data by management at all levels of the Institute to aggressively improve products and services for customers and stakeholders that is the hallmark of leaders in performance management.

The FRI now needs to look at how to manage assessment results to the benefit of the Institute, and how the BSC methodology can be used to guide the Institute towards accomplishment of strategic goals. To effectively move from performance measurement to performance management, two key components need to be in place:

- ❖ The right organizational structure; (Which is now in place), and
- ❖ The ability to use performance measurement results to actually bring about change in the institute.

10.0

DISCUSSIONS OF THE CASE STUDY PRESENTATIONS

Name: S. Holman Biney

Question/Contribution: Listening to the presentations from FRI & CSIR, I notice apart from our Corporate Vision, Mission, Strategic Plan etc. they are trying to develop their own Objectives outside the Corporate Vision and their own Strategic Plan. I will like to caution that things are done with reference to the Corporate at the top or centre. Let us try to avoid a situation where at the end of the day different Institutes will be doing things without reference to what has been agreed on at the Central point.

Response: In responding to Mr. Holman-Biney's concerns, Prof A. Ayensu allayed his fears and assured him that rather the use of the BSC and performance measurement framework will bring out the corporate nature of the CSIR. He added that implementing the BSC CSIR-wide will provide a common methodology and coordinated framework for all CSIR performance measurement efforts.

Name: Dr. John Ofosu-Anim

Question/Contribution: What can be done by CRI to gain recognition for research done?

Response: The Director of CRI said it is the case of "*He who pays the piper calls the tunes*" The relationship between MOFA is like a contract, money was paid for job to be done and so the results are for them, which should not be the case. Mr. Lambert Abusah of MOFA strongly disagreed and said the CRI is duly recognized and mentioned when the results of any research done by them for MOFA is mentioned. In his intervention the chairman said it is fact that CRI does most of the work and MOFA takes the credit. He added that the BSC approach to performance measurement is one way the issue raised by Dr. Ofosu-Anim can be addressed

Name :   Dr. M. Entsua-Mensah

Question/Contribution: Commercialization eroding focus of staff at FRI. CRI has not attained 1% of the 30% should not the other institutes also do M&E of commercialization in their institutes?

Response: In his response Dr. Amoa-Awua explained that emphasis is shifting away from research. Conflict of interest with promotion criteria and scientists having to play dual role of being researchers and market-oriented researchers. The chairman added that the purpose of the current exercise is to address the concern she has raised and that every Institute will have to undertake the same diagnostic exercise.

Name: K. M. Setsoafia

Question/Contribution: Do you not think that the better performance of the Uganda case as compared to that of the Crops Research Institute is due to the fact that the Uganda case is limited to only one commodity while the Crop Research Institute is working on about 10 commodities?

Response: In answering the question, Dr. Sutherland agreed that it could be partly true that the relative success of the Ugandan Case is due to the simple nature of handling a single commodity. At programme level it is easy to demonstrate effect. He however explained further that, the project selected three case studies – one programme versus two Institutes. In Uganda there is a high top management involvement, which has the flexibility to easily implement the approach. He stressed that leadership involvement in designing and deploying effective performance measurement and management systems is critical to the success of the approach. Clear, consistent, and visible involvement by senior executives and managers is a necessary part of successful performance measurement and management systems. Senior leadership should be actively involved in both the creation and implementation of their organization's systems.

Name: Dr. Asafu-Agyei

Question/Contribution: The commercialization process in Uganda is unique. The privatization of Extension Services among others; do you know whether it is working and how was it done?

Response: Dr. Sutherland explained that he did not have the detail knowledge of the commercialisation process in Uganda, but he knows the privatization of the Extension Services is working. He added that the Ugandan case is unique, because they started all afresh after the civil war and there was no demand for payments of retrenchment bonuses etc. He added that the only country in Africa now that can follow the Ugandan example might probably be Somalia, starting all afresh.

11.0

GROUP WORK SESSION

Corporate Group Report

Organisations Represented

- ❖ Council for Scientific and Industrial Research (CSIR)
    - i.   Representative of the Ag. Director-General
    - ii. Human Resource Division
    - iii. Audit Division
    - iv. Central Commercialisation and Information Division
- ❖ Ghana Atomic Energy Commission (GAEC)
- ❖ Ghana Standards Board (GSB)
- ❖ Food and Drugs Board (FDB)
- ❖ National Institutional Renewal Program (NIRP),
- ❖ National Development Planning Commission (NDPC)
- ❖ Committee of Vice Chancellors and Principals (CVCP)

This group had considerable discussion on the general context in their respective organisations and sectors, and then focused in on opportunities for improving performance measurement and some options that might be considered for this.

Opportunities

- ❖ Funding agencies pressure for improving performance management – the benefit is that research will be demand driven
- ❖ MTEF budgeting – benefit is that budgets are related to specific programmes, budget state performance levels in that money is linked to specific activities
- ❖ Commercialisation mandate of corporate organisations – the commercialisation programmes have demand driven targets that organisations will have to meet.

Way forward

Some options discussed included:-

- ❖ Performance audit.
- ❖ Further development of strategic plans (incorporating performance management as an integral part)
- ❖ Development of total quality management systems
- ❖ Strengthen the existing M&E and MIS systems.

CSIR Institute Level Group

Institutes Represented:

- ❖ Plant Genetic Resources Centre (PGRC)
- ❖ Food Research Institute (FRI),
- ❖ Water Research Institute (WRI)
- ❖ Institute for Industrial Research (IIR)
- ❖ Institute for Scientific and Technological Information (INSTI)
- ❖ Building and Road Research Institute (BRRI)
- ❖ Crops Research Institute (CRI)
- ❖ Science and Technology Policy Research Institute (STEPRI)
- ❖ Animal Research Institute (ARI)

Unrepresented Institutes:

- ❖ Soil Research Institute (SRI)
- ❖ Savannah Agricultural Research Institute (SARI)
- ❖ Oil Palm Research Institute (OPRI)
- ❖ Forestry Research Institute of Ghana (FORIG)

Strengths of current performance measurement:

- ❖ Detailed system of staff evaluation (this includes annual appraisal, application of promotion criteria, quarterly reporting system when reports delivered on time are used as an indicator),
- ❖ Project management mechanisms (e.g. committees) are in place to ensure quality of reports (peer reviewed), particularly for externally funded projects.
- ❖ Financial monitoring systems are in place and are effective,
- ❖ A system for monitoring timeliness of delivery of services supplied by the institutes

Weaknesses of current performance measurement:

- ❖ No mechanism in most institutes for measuring timeliness of delivery research products and services,
- ❖ Poor implementation of the staff appraisal system. (Feedback is not forthcoming and lack of feedback to staff from the secretariat which includes inadequate training for the evaluators of staff performance),
- ❖ Lack of evaluation of management performance

Opportunities for improving performance measurement

❖ Client satisfaction – feedback is an important area where systems need to be put in place (at present this happens on an ad hoc and informal basis in most institutes)

❖ Source external support to improve capacity in measurement of performance

❖ Inter-institutional collaboration in acquisition of best practices in performance measurement – learning from what works in other CSIR institutes.

Way forward

❖ Institute measures to overcome current weaknesses and take advantage of opportunities

❖ Set realistic/achievable standards for staff performance appraisal in terms of: -

    i.   Availability of resources,

    ii.   Staff capability with regard to commercialisation

    iii.   Institute annual in-house performance reviews

    iv.   Improve systems for client feedback

12.0

SUMMARY OF ANALYSIS BY PARTICIPANTS AND RECOMMENDATIONS

Current Strengths in Performance Measurement

Current efforts at organisational performance monitoring and measurement in CSIR's research organisations focus on individual staff performance, project level management and financial monitoring. Staff performance is measured through annual appraisals and these focus mainly on published outputs. Project level monitoring pays particular attention to externally funded research projects.

Project reports are peer reviewed for quality. There are effective systems for financial monitoring and control. At corporate level within CSIR there is a Management Information System for research projects funded under the AgSSIP, and a database (GhaAgri) of past research. Both tools could be used to assist research priority setting and planning.

Current Weaknesses in Performance Measurement

Historically, the development of organisational monitoring and evaluation capacity and expertise has not been prioritised within CSIR, and currently capacity resides only at the headquarters (an M&E/MIS specialist). The current systems are not all operating as effectively as they might. Training in staff appraisal is not being provided and it is generally felt that the system is operated in a way that lacks frankness and transparency, in part due to cultural factors. It is further felt that the current system does not enable appraisal by research institute staff of their manager's performance.

While projects are monitored within institutes, there is no systematic measurement of timeliness in the delivery of research products and services. Managers are aware of the MIS systems in place, but are not fully convinced of the value of these and do not use them very much to assist in their planning and management activities.

Opportunities

The operating environment for research organisations (policies, funding partners, other stakeholders etc.) provides stimulus and opportunities for enhancing organisational performance measurement. Through the research commercialisation policy, CSIR and other research Institute managers increasingly recognise the importance of client feedback on their products and services and the need for a more systematic approach to gathering feedback and using the results to improve their performance.

The commercialisation programme has demand driven targets (e.g. 30% of budgets to be met from commercial activities), which provide one measure of financial performance (this is under review). Pressure from funding agencies is embodied in the policy of demand-driven research supported by a budgeting system (MTEF) that allocates funds to specific programmes and activities – providing a mechanism for linking financial inputs with research outputs. Some research institutes are undertaking specific types of performance measurement, and hence the opportunity for inter-institutional collaboration in acquisition of best practices in performance measurement – learning from what works in other CSIR institutes. There are also possibilities for obtaining external support for improving capacity in the measurement of performance.

13.0

RECOMMENDED WAY FORWARD

The following points were broadly agreed during the meeting involving CSIR Directors and the Deputy Director General for INSS:-

❖ Current weaknesses in organisational performance management need to be addressed, and measures put in place to overcome current weaknesses and take advantage of opportunities.

❖ There is a clear need to review and strengthen existing M&E and MIS systems and at Research Institute level and to establish adequate capacity for performance measurement and management,

❖ As part of review and strengthening, every CSIR institute should conduct a diagnosis following a similar procedure implemented in FRI and CRI, prior to using the scorecard approach and perspectives to develop a performance measurement strategy with action plans to be implemented at institute level,

Specific suggestions were made relating to the above need for strengthened performance measurement within CSIR including:-

❖ The current system for staff appraisal needs to operate using realistic standards - in terms of the availability of resources and staff capability with regard to commercialisation.

❖ The ongoing development/revision of strategic plans (at corporate and institute level) should incorporate stronger performance measurement and management as an integral part. The scorecard process, as followed by the case study organisations, provides one framework through which this might be undertaken.

❖ At institute level, annual in-house performance reviews should be considered, and these could be used as opportunities to revisit progress in implementing strategic plans

❖ There is need for an annual meeting within CSIR to discuss performance measurement at corporate level, bringing together the heads of the various institutes. This would provide an opportunity for sharing best practice between institutes, promoting the culture of evaluation for learning and growth.

BROADENING MONITORING AND EVALUATION FORUM

BREAKOUT GROUP AND TASKS

Stakeholders representing various levels:-

1. Corporate Level – CSIR, GAEC, GSB, FDB, NMIMR - specialist

2. Research Institute level – 13 CSIR institutes and specialist,

3. Public sector level – NIRP, MES, MOFA, NDPC, CVCP

Objectives for the breakout discussions

- Capture "snap-shot" of strengths and weaknesses of current organisational M&E/performance measurement at the levels represented (corporate level, research institute level, ministry/sector level).

- For each level represented, identify opportunities for improvement in organisational performance measurement and perceptions of the likely benefits.

- Reach a broad consensus on the way forward to improve performance measurement (at the levels represented).

TASKS

List the **strengths and weaknesses** of the current efforts to measure organisational performance in your groups' level (20 mins)

Identify the **main opportunities** for improving performance measurement in your groups level and the expected **benefits (**e.g. assess the extent to which the results of improved measurement will result in improved management/decision making), (15 mins)

Make recommendations on the **way forward** to improve organisational/programme performance measurement at this level. (15 mins)

Appendix 2
List of Participants

No.	Name	Organisation/ Institute	Position
1.	Robert M. Yawson	CSIR/FRI	Scientific Secretary
2.	Dr. Alistair Sutherland	NRI	Principal Researcher
3.	Seewu K. Noamesi	CSIR/FRI	Research Scientist
4.	Dr. J. N. Asafu-Agyei	CSIR-CRI	Director
5.	Dr. Harrison Dapaah	CSIR-CRI	Senior Research Scientist
6.	Dr. Amoa-Awua	CSIR-FRI	Deputy Director
7.	Ivy Johnson-Kanda	CSIR-FRI	Assistant Research Scientist
8.	Christian Amegah	CSIR-FRI	Assistant Accounts Officer
9.	Andrews Boadi	FDB - Accra	Senior Regulatory Officer
10.	Kwasi Setsoafia	CSIR – AFFS	Senior Assistant Secretary
11.	Goski Alabi (Mrs)	FDB – Accra	Regulatory Officer
12.	Kofi Ampem Darko	CSIR – Sec	Deputy Director (Audit)
13.	Dr. M. Entsua-Mensah	CSIR – WRI	Senior Research Scientist
14.	B. B. Dery	NDPC	Deputy Director
15.	Dr. J .O. Gogo	CSIR - STEPRI	Director
16.	Dr. J. Ofosu-Anim	CVCP – Legon	Senior Lecturer
17.	Dr. K. G. Aning	CSIR-ARI	Director
18.	Dr. L. M. Aboagye	CSIR-PGRC	Dep. Director
19.	M. Y. Zame	MDPI	Dep. Director
20.	Dr. G. Y. P. Klu	GAEC/BMAG	Director
21.	Dr. B. V. Dadzie	DFID/CPHP	Regional Coordinator
22.	Prof. John Aheto	GIMPA	Deputy Director-General
23.	Prof. A. Ayensu	CSIR-INSS	Deputy Director-General
24.	C. Entsua-Mensah	CSIR-INSTI	Director
25.	Docea Quashie-Asiedu	GSB	Planning Officer
26.	Angela Dannson	MOFA	Assistant Director
27.	Dr. W. A. Plahar	FRI	Director
28.	Mr. H. A. Obiri	CSIR-IIR	Research Scientist
29.	Josephine Okutu	CSIR	Commercial Director
30.	K. Amoa-Mensah	CSIR-BRRI	Director
31.	S. Holman Biney	CSIR SECT.	Principal Assistant Secretary
32.	Lambert Abusah	MOFA	Assistant Director
33.	Joan Kpodo	NIRP	Programmes Manager
34.	Eileen Odartei-Laryea	CSIR	Secretary/Director of HR
35.	Mike Tsiagbey	CSIR	Sec. Env. & Health

Appendix 3
List of Invited Participants

#	Name of Organisation	No. of Participants
1.	National Institutional Renewal Programme	1
2.	Ministry of Environment & Science	1
3.	Ministry of Food & Agriculture (Angela)	1
4.	National Development Planning Commission	1
5.	Council for Scientific & Industrial Research Secretariat	4
6.	CSIR Member Institutes	13
7.	Ghana Atomic Energy Commission	1
8.	Biotechnology and Nuclear Agricultural Research Institute	1
9.	Ghana Standards Board	1
10.	Food and Drugs Board	1
11.	Noguchi Memorial Institute for Medical Research	1
12.	Committee of Vice-Chancellors and Principals	1
13.	Management Development and Productivity Institute	1
14.	Ghana Institute of Management and Public Administration	1
15.	KPMG	1
16.	PricewaterhouseCoopers	1
17.	BD Consult	1
18.	DFID	1
19.	UNDP	1
Total Number of Invited Participants		*34*
Project Team Members		
18.	Natural Resources Institute, University of Greenwich, UK	1
19.	CSIR-Food Research Institute	3
20.	CSIR-Crops Research Institute	2
21.	Other Stakeholders MOFA- Lambert Abusah	1
Overall Total Number of Expected Participants		**41**

Appendix 4
Programme

9.00 am – 9.30 am	Registration	Participants
9.30 am – 9.45 am	Welcome Address	Deputy Director-General INSS-CSIR
PLENARY SECTION		
9.45 am – 10.15 am	Broadening the monitoring and evaluation of research: key concepts and aspects.	Dr. Alistair Sutherland NRI - UK
10.15 am – 10.35 am	Monitoring & Evaluation – Experiences within NARS in Ghana	Mr. K. M. Setsoafia AFFS-CSIR
10.35 am – 10.55 am	Performance Management – A Critical Issue for Scientific Research Organisations in Ghana	Prof. John B. K. Aheto Deputy-Director General GIMPA
10.55 am – 11. 15 am	*Discussion on presentations*	
11. 15 am – 11.35 am	Coffee Break	
CASE STUDY PRESENTATIONS		
11.35 am – 11. 55 am	Case Study 1: Applying the score card at research programme level in Uganda	Dr. Alistair Sutherland
11.55 am – 12. 25 pm	Case Study 2: Food Research Institute – Initial Experiences in Developing a Performance Measurement framework for FRI (Agribusiness)	Dr. W. Amoa-Awua/ Mr. Robert M. Yawson
12. 25 pm – 12.45 pm	Case Study 3: Crops Research Institute – Initial Experiences in Developing a Performance Measurement framework for CRI (Crop Production)	Dr. Asafo-Adjei/ Dr. Harrison Dapaah
12.45 pm – 1.00 pm	**Discussions on Case studies**	
1.00 pm – 1.45 pm	**Buffet Lunch**	

PART II

1.45 pm – 2.45 pm   *Three breakout groups to discuss the relevance and applicability of the M&E concepts and framework to research and allied organisations*

Group 1 – Corporate Level

   CSIR, GAEC, GSB, FDB, NMIMR and a Specialist

Group 2 – Institutional Level

   Thirteen CSIR institutes and a specialist

Group 3 – Public Sector Level

   NIRP, MES, MOFA, NDPC, CVCP

2.45 pm – 3.15 pm   *Ten minutes presentation from each syndicate group leader*
3.15 pm – 4.15 pm   **General Discussions – summing up and next steps**

Forum on Performance Management

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