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Institutionalising Performance Management in R&D Organisations: Key Concepts and Aspects

Robert M. Yawson*[1] and Alistair Sutherland**

**Food Research Institute, P. O. Box M20, Accra, Ghana*
***Natural Resources Institute, Chatham Maritime, Kent ME4 4TB, U.K*

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ABSTRACT In an era in which accountability, cost effectiveness and impact orientation are at premium, Research and Technological Organisations are under pressure not only to improve their performance but also to be able to demonstrate this improvement. This pressure is particularly hard-felt by agricultural research organisations, where funders' perceptions of a lack of evidence for the uptake and impact of products and services are raising questions about their efficacy and existence. Such pressures can be traced back to several factors, including changes in management trends and the growing scarcity of donor funding in the face of proliferation of Non-Governmental Organisations. These pressures have focussed R&D Organisations attention on the need to develop monitoring and evaluation systems that are capable of ensuring and demonstrating improved performance. In recognising that the developmental impact of research is notoriously difficult to assess, the paper is predicated on the belief that indicators of organisational uptake can provide reliable proxies, or 'leading' indicators of development impact. The background to this paper 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 key concepts and aspects of this novel approach and similar work done are discussed.

1. INTRODUCTION

Research institutions in the developing world 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 (Yawson et al. 2006)

The background to this paper 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). This was made possible by financial support from DFID's Renewable Natural Resources Research Crop Protection Programme, Natural Resources Systems Programme, and the Rockefeller Foundation (Smith and Sutherland 2003).

The demand for this work was based on recognition that the public policy reforms associated with donor aid delivery, particularly poverty reduction strategies and associated expenditure frameworks, require research and development organizations to have clear, accountable and attributable measures of performance to demonstrate their impact. Moreover, the emphasis now being placed on client orientation through decentralized programmes implies a need for 'joined-up' monitoring and evaluation (M&E) systems that not only incorporate broader perspectives and clientele, but also focus more closely on results and service delivery. This pressure is keenly felt in agricultural research organizations, where funders' perceptions of a lack of evidence for the uptake and impact of products and services are questioning the organizations' efficacy and existence.

In attempting to address this situation, the project focused on the need within agricultural research organizations for systems that monitor changes over which the organizations and their employees have direct control or a manageable interest, rather than on systems which measure longer-term outcomes and impacts over which they have less direct influence. The balanced scorecard was adopted as the central approach for developing a performance management system. It has proven successful within private sector corporations and is increasingly being used in the public sector. The scorecard provides

*Corresponding author:
E-mail: yawso003@umn.edu

a 'balanced' view of an organization's performance across four perspectives; employee, business, client and financial. It stresses a balance between monitoring internal processes and the views of the clients and other stakeholders; both are seen as crucial to an organization's survival within an increasingly complex and competitive global environment, and should be internalized within any performance management system.

The project set out to develop and institutionalize performance management systems that enhance the impact orientation of research organizations. This goal involved conducting activities within this phase, and a future phase. On reflection, the project team felt that it has moved a considerable way in the direction of achieving this goal – having identified, contextualized and built upon a performance management approach that is relevant to the R&D sector. The core principles – participation, iteration and reflection – were central to the progress made in institutionalizing ideas and approaches during this inception phase.

The need to address performance management is an issue that is increasingly central to the concerns of the Consultative Group for International Agricultural Research (CGIAR). We collaborated with International Service for National Agricultural Research (ISNAR) who were developing similar work on evaluation capacity development and performance management (Horton et al. 2000) and this project has aligned itself with similar work by the World Bank (World Bank 1999), the International Development Research Centre (IDRC) (Lusthaus et al. 1995) and the Association for Strengthening Agricultural Research in Eastern and Southern Africa (ASARECA) (MCCALLA, A 1999)

This paper covers the following issues:

i. Why there is a need to broaden the approach to monitoring and evaluation?
ii. How this broadening can be achieved,
iii. 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. (CGIAR 1997)

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 (Sutherland 2003). 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. (Rohm 2002) 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:

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

i. Performance "the functioning of a programme or organisation over which the actors involved have direct control or a manageable interest' (Smith and Sutherland 2002)
ii. Thus, by extension, performance measurement is "the system (methods and tools) used to monitor and assess the programme or organisation's functioning"
iii. Performance management is "the effective integration of performance measurement within a programme or organisation's strategic planning and decision-making processes"
iv. 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 (Smith and Sutherland 2000)

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 (National Partnership for Reinventing Government 1999).

Having clarified the difference between performance and M&E, we 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)" (Smith and Sutherland 2002). 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) (Schrol L 2001)

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 over 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 (Kaplan and Norton 1992). 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, we 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 (Fig. 1).

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 (PEA 1999).

The Balanced Scorecard builds on the following key concepts (Kaplan and Norton 1992, 1996 and 2000):

i. *Causality* – the belief that managers can identify things to do that will lead to results being achieved.
ii. *Learning* – the belief that given appropriate feedback, managers and staff will identify ways to improve performance.
iii. *Teamwork* – the belief that most organizations rely on activities performed by teams.
iv. *Communication* – the belief that clear communication of goal, objective, results and expectations are necessary to achieve high levels of performance.
v. *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).
vi. *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.

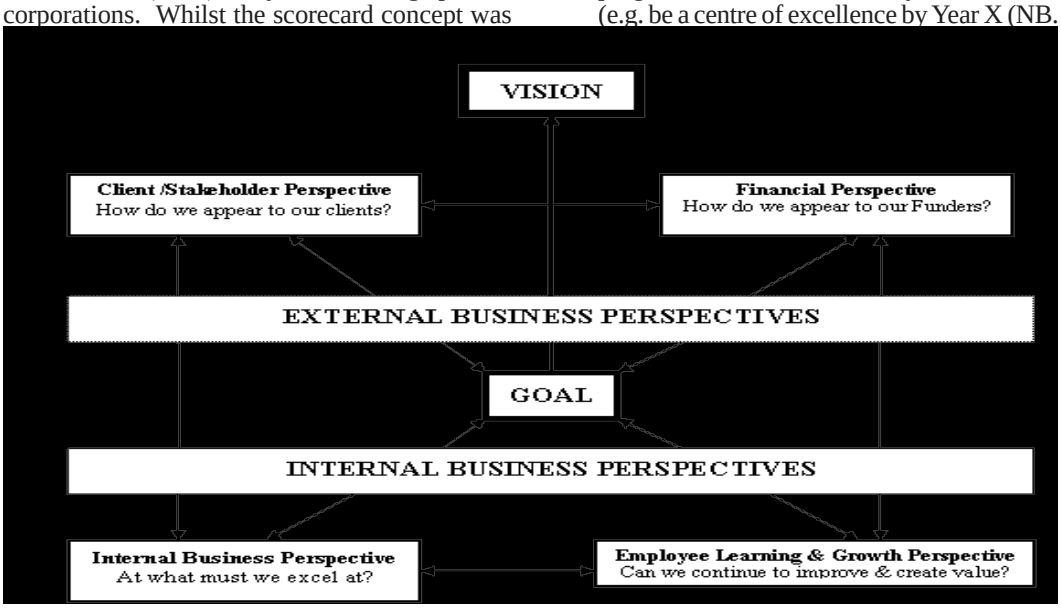

Fig. 1. The balanced scorecard framework
Adapted: Kaplan and Norton 1992

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:-

i. 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.

ii. 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.

iii. 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.

Figure 2 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

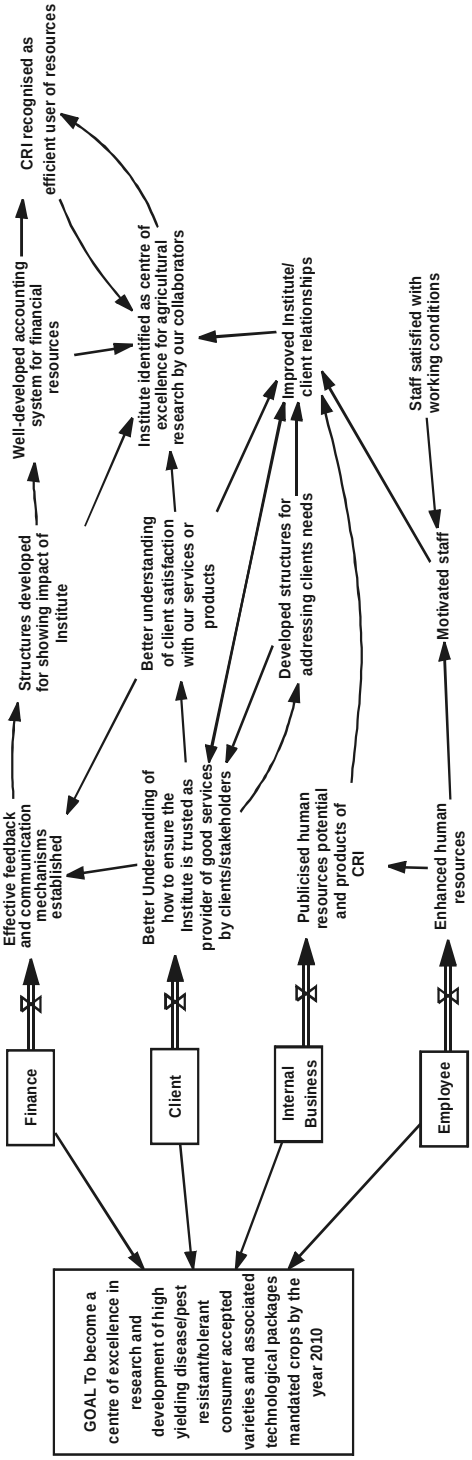

Fig. 2. Mapping objectives across the perspectives – Crops Research Institute

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. The detailed methodology for this exercise can be referred from Smith and Sutherland (2003).

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

4. CONCLUSIONS

In Summary, the Balances Scorecard offers the following advantages:

i. It enables a shared understanding of the strategy amongst management and staff, enhancing motivation and ownership
ii. It supports a balanced view of performance, internalizing previously neglected areas
iii. It helps to concentrate the flow of information essential for strategic management
iv. It provides a framework for feedback and learning

4.1 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.

4.2 What is Being Offered to Address the Need?

i. A focus on performance, not just monitoring and evaluation
ii. An approach for defining manageable goals/ aims linked to clear objectives and targets that cascade through an operational unit
iii. This means determining strategic practices relating to performance measurement that are owned by managers and staff, and reflected in day-to-day processes
iv. 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

The study set out to develop and institutionalize performance management systems that enhance the impact orientation of research organizations. This goal involved conducting activities within this phase, and a future phase. On reflection, the project team felt that it has moved a considerable way in the direction of achieving this goal – having identified, contextualized and built upon a performance management approach that is relevant to the R&D sector. The core principles – participation,

iteration and reflection – were central to the progress made in institutionalizing ideas and approaches throughout the study.

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