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Scientists' Views on Good Governance of An Agricultural Research Organization



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Background

The National Policy on Agriculture (NPA) sets a goal of 4 per cent growth in agriculture, which would be environmentally, economically and socially sustainable. Retrospectively, agricultural growth rates have seldom touched beyond 3.5 per cent. Beginning with 1990s, the growth rates exhibited declining trends; widening further the divide between expected and attainable. Prospects of building agricultural production through area expansion have almost come to a standstill. What is thus required, is to increase productivity to refurbish national goal of 4 per cent growth in agriculture. While attempting that, agricultural science and technology must not lose sight of issues related to sustainability i.e., rise in productivity in harmony with protection of environment, building of natural resource base and favourable economics; globalisation—requiring farming to be more precise, dynamic and competitive—quality and price wise and in frontier subjects of the 21st century i.e. information technology and biotechnology. Thus, at the threshold of the new millennium, Indian agriculture confronts an entirely different set of constraints and challenges than in the past.

Agricultural education, research and development do not get funding commensurate to their importance. Against a justifiable rate of investment equivalent to 1 per cent of agricultural GDP, allocations have seldom exceeded 0.3 per cent. The situation seems less likely to improve due to waning interest and enthusiasm to invest in agricultural science and technology (S&T). Attainment of over selfsufficiency in food is a cause for creeping in of a sense of complacency in the minds of planners, policy gurus and fund administrators. Quite contrary to this perception, if futuristic agriculture has to attain and sustain a growth rate of 4 per cent, and remain environmentally benign, economically favourable and socially relevant, it will require far more infusion of science and funding commitment. While National Agricultural Research System (NARS) has a genuine case for greater financial support, its agenda ought to address general concerns of funding agencies on returns to investments and perceptions of various peers and stakeholders on relevance and utility of S&T results. More than ever, NARS have to become increasingly responsive, participatory and transparent in internal decisionmaking and governance. Alignment of their findings to external scrutiny from the point of measurable contribution and high degree of social responsibility will be necessary. Public research systems must, therefore, find ways to continually improve performance and accountability by becoming more sensitive to farmers' livelihood security, productivity surge, quality of natural resources and climatic integrity and country's international obligations in the face of WTA and liberalisation of economy. In this pursuit, research organisations will be required to manage their programmes efficiently and effectively on the one hand and rewrite their research objectives on the other. It will, thus, be necessary to change the ways research organisations are governed and structured currently.

Seized with the problem that the traditional methods and means of steering public research organisations were not adequate to cope with the existing and emerging demands of agricultural S&T. The ICAR and the NAAS sponsored a workshop to discuss and capture scientists' perceptions on the subject.*

* *A one-day workshop under the convenership of Dr. J.C. Katyal, on 28 September, 2002, "Good Governance: A Framework for Improving work Culture, Performance and Accountability in the National Agricultural Research System (NARS)."*

Governance and Good Governance Concept

Governance—Definitions and Concepts

- Governance is defined as the way a system or organisation is guided and steered.
- From NARS perspective, governance is related to guiding, actuating and steering its research, education and extension functions towards growth and improved performance.
- Growth and improved performance depend upon an enabling environment to perform (internal processes i.e., rules and procedures) and generation of S&T goods having relevance and utility to all stakeholders (NARS-stakeholders' interface i.e., external processes).
- Governance is the point where external (peers and stakeholders) and internal (rules and procedures) environments meet. It is through governance that NARS capture the concerns of diverse stakeholders—funding agencies/peers, clients, staff, farming and civil society in general, which are translated into programmes, projects and activities. These in turn are executed within the bounds of rules and procedures.

Good Governance

- Good or effective governance means strengthening the rule of law and a legal framework for organisational growth and maintaining development and delivery of quality output by building democratic, responsible and responsive system.
- Applied to NARS, good governance signifies decentralised working, authority to modify/formulate rules and procedures; ability to exercise them in an unbiased manner: and manage the environs and personnel assigned to research laboratories and fields and address the needs and perceptions of various clients and stakeholders. Remaining efficient in input use and relevant in application of its output are other important indicators of a good governed NARS.
- Good governance extends beyond management; while the latter refers largely to processes within the system or organisation, the former encompasses growing interactions between the organisation and its stakeholders (see Box 27.1).

Box 27.1

Good governance certainly rises above the routine application of internal administrative and financial rules and procedures in managing the affairs of organisations:

- It relates more to a method of management that ensures conforming to basic rules of society, “both those embodied in law and in ethical custom” (Cadbury, 1998).
- It is fundamentally a state of the mind. It cascades from a set of core values that remain relatively unchanged with time (Narayana Murthy, 2000).

- It has eight characteristics—consensus oriented, follows the rule of law, efficient and effective, accountable, transparent, responsive and equitable and inclusive (UNDP, 1997 and UN-ESCAP, undated).
- It is the principles and not just rules that must guide the processes.
- Good governance is not about establishing command and control structures for management but about empowering and enabling each individual to perform and deliver. It is about the creation of a framework of organisation's vision, structures, systems and people that embeds the set of core values into its processes and which allow growth in synergetic interactions with all its stakeholders. Hence, good governance is goal and problem solving oriented, fair, just and transparent along the hierarchical toposequence.

The Analytical Framework of Good Governance

- Good governance framework is built around three dimensions—internal mechanisms, performance and accountability.
- The internal mechanisms relate to how decisionmaking roles and responsibilities are defined, accepted and applied to establish overall work culture. Legitimacy of the organisation (accepted role in the national hierarchy, external rules and procedures, control and powers delegated to it to function autonomously), extent of decentralisation of its governance structures (governing body, institute level committees and task forces up to the group or individual levels, internally imposed rules), and how the linkages with its external environment (stakeholders) are established describe broadly the canvas of internal mechanisms.
- Performance dimension—a key external variable of good governance—relates to the use of resource inputs with product outputs. Performance defines a system's viability and visibility. Non-performing assets—falling output corresponding to constant inputs or stagnating output against rising input, sooner or later, are destined to be disinvested and phased out. Besides efficiency with which inputs are used and acceptability of and profitability from the output produced are measured, performance management should ideally focus on indicators that assess long term value creation like human resource development, client service, product standards, quality of internal processes and organisational learning.
- Accountability—an external dimension of good governance, is defined as responsibility for performing those tasks or achieving those results for which the individual or the organisation has been delegated the necessary authority. Without grant of necessary authority, individuals and organisations are less liable to be held accountable for use of resources, production of quality output and the processes of fairness, responsiveness and honesty by which the output is produced and its impact and relevance are sustained.
- Accountability relates performance to relevance and social responsibility. By defining roles and responsibility and operational rules and procedures, internal processes, in turn, influence performance and accountability.
- Good governance requires that external and internal rules be supplemented by organisational and individual value systems and ethical codes.

Governance: The ICAR Case Study

Organisation and Growth of ICAR

- Indian Council of Agricultural Research was born as the Imperial Council of Agricultural Research on 16 July 1929 as a Society under the Societies Act of 1860.
- Society re-christened as the present-day Indian Council of Agricultural Research (ICAR, also referred to as the Council) in January 1966.
- ICAR is the apex national organisation for guiding, promoting, conducting and coordinating education, research and development in agriculture including animal husbandry and fisheries.
- Besides its headquarters at New Delhi, ICAR has a vast network of institutes and deemed to be universities (87 and 4) respectively, all India coordinated research projects (82) and krishi vigyan kendras (261). Thirty-four state agricultural universities, three central universities and one central agricultural university work closely with the ICAR.
- ICAR employs about 5,000 scientists, 9,000 technicians, 5,000 finance and administrative functionaries and 11,000 support staff.
- ICAR functions in a multi-layered hierarchy. It is linked to the government through Department of Agriculture and Education (DARE). Over the years, DARE has overwhelmed the functioning of ICAR. It asserts more as a command and control structure and less as its original facilitating role of linking ICAR with government.
- Agriculture Minister is the President of the ICAR Society. He guides the policy direction and is the final authority in the matters of appointments, deputations abroad, and disciplinary/ vigilance cases. With time, he has been saddled with making decisions and/or giving approvals/sanctions on cases which otherwise are well within the purview of administrative hierarchy.
- Director General, ICAR and Secretary, DARE is its Chief Executive Officer. He is responsible for and has necessary authority to manage the affairs of ICAR system.
- In technical functions, eight deputy directors general, each in a distinct subject area, support DG, ICAR. Depending upon the subject speciality, a DDG guides and facilitates functions of a number of directors of the institutes, project coordinators of AICRIPs and zonal coordinators of KVKs.
- In the matters of administration and finance, one Additional Secretary each (drawn from the cadre of Indian Administrative Service and till early 2001 the post was equivalent to Joint Secretary rank) assists him. Additional Secretary who looks after personnel and administration matters, functions as Secretary ICAR. Whereas, Additional Secretary who is concerned with financial aspects, acts as Financial Advisor ICAR/DARE.

- In matters of administration and finance, DDGs depend solely on the decisions/opinions of the Additional Secretary, DARE/Secretary, ICAR and FA, DARE. In this trichotomous set up while the DDGs are burdened with many responsibilities, matching authority remains either denied or ill defined. On many occasions, decisions of administration and finance follow a course, different than that which DDGs perceive and pursue. With the result optimum working environment suffers, mistrust grows and delays and indecisions become of common occurrence.
- The ICAR system thus serves a variety of stakeholders namely farmers, scientists, students, central and state government departments, funding agencies, etc. More than the size and a multi-layered hierarchy of the ICAR system, it is its accountability to a wide variety of stakeholders and responsibility to millions of clients that makes ICAR a complex organisation.

Box 27.2

Performance Record of ICAR

- Despite complexity of structure and functions, performance of ICAR has been commended and acclaimed both nationally and internationally.
- It has succeeded in building a scientific base for Indian agriculture by contributing to increases in productivity of wheat (4-fold), rice (3-fold) and sorghum and pearl millet (2-fold). Likewise, productivity of other food items like fruits and vegetables, milk, meat and poultry have multiplied several folds.
- Over the last 25 years, foodgrain production increased by more than 100 million tonnes and the total factor productivity grew at 1 per cent-plus per year. In this achievement, contribution of research varied between 30 per cent and 50 per cent with an internal rate of return ranging between 40 per cent and 60 per cent.
- The past successes have led to rising expectations from ICAR. Fixing up of a thus far unreached growth rate of four per cent/annum envisaged in the National Agricultural Policy is a pointer to the confidence and expectations of the nation in its agricultural research system.
- Simultaneously, with issues arising from poverty, malnutrition, unemployment, regional inequalities, and inefficient use of native resources synthetic inputs and resultant degrading quality of the natural resource base and possible shifts in climatic patterns, ICAR has to rework its research agenda on attaining the target productivity growth rates keeping sustainability concerns in sight.
- Additionally, research has to be more responsive to the new ethical issues like IPR and GM foods. Globalisation and opening of world economies call for greater vibrancy and a need to make quick adjustments in research objectives. While serving these emerging demands researchers will now become more accountable to a far larger variety of stakeholders than was ever visualised before. Also, public investments in agricultural research and education, which seldom match the real needs, will be screened and reviewed from every possible angle.

Governance Framework

- The existing governance structure of ICAR is assessed from three-dimensional perspective of governance—the internal mechanisms, performance measurement system and accountability. The internal mechanisms define the legitimacy, autonomy, decentralisation and delegation which impact the overall work culture. The two external dimensions, performance assessment and accountability, permit assessment of efficiency, effectiveness and relevance of the organisation.
- The ICAR works in a governance framework set largely within the rules and procedures emanating from the Government of India. The framework derives its legitimacy from a general body of the Society in which state governments and other departments at the centre, members of the Parliament and farmers and other interest groups are represented.
- The other main instruments of the governance framework are: the Governing Body (GB) at the ICAR headquarters, and the Institute Management Committees (IMCs, called Board of Management or (BOM) in DUs) at the research institute levels. The stakeholders are represented in both GB and IMCs.
- The GB is the chief executive and decisionmaking body of the Council. Societies Act of 1860 entrusts the GB the authority to manage the affairs of ICAR. One other provision of the Act provides, “whenever it shall appear to the GB of any society registered under this Act, which has been established for any purpose or purposes, that it is advisable to alter, abridge such purpose to or for other purposes within the meaning of this Act”, it can do so. These two provisions of the Act are the basis of autonomous functioning of ICAR.
- Apparently, government funding should not affect autonomy of the ICAR. In practice, it exercises considerable influence, since GoI rules and procedures are applied and adopted *ipso facto*.
- *Mutatis mutandis* facility of making necessary alterations in instruments of governance remains mostly unutilised. ICAR has generally sacrificed its autonomy in favour of government rules and procedures, observed G.V.K. Rao Review Committee in 1988. In fact, subject of autonomy and a matching organisational structure at the ICAR headquarters and delegation of powers to its constituent institutes has been reviewed at least on nine occasions in the last 27 years without implementing the recommendations fully.
- Setting up of a new Review Committee, before recommendations of the last Committee were accepted/implemented, has earned ICAR the distinction of ‘a most often reviewed scientific organisation in the country ’ and creates apprehensions in the organising capacity to deliver to the expectation of the stakeholders.
- Selective follow-up action on operationalisation of several critical recommendations has left autonomy of ICAR to look more aspirational than real. ICAR’s work ethos continues to copy a government department and its institutes controlled by the

headquarters on all crucial matters. Its format of governance can best be described as 'limited autonomy' and 'controlled decentralisation'.

- Other autonomous scientific organisations like CSIR have taken advantage of the *mutatis mutandis* clause to ensure a relatively higher degree of devolution of powers to the institutes and scientists. But in ICAR real decentralisation has yet to find effect to a measurable degree in practice.
- Formal processes of performance assessment have largely been limited to the ICAR institutes and AICRIPs through quinquennial review teams (QRTs). At the individual level, a scientist's performance is monitored through annual assessment reports (AAR). The existing AAR proforma suits more to assess the work of civil servants and less of scientists. By constitution, the AAR is 'confidential in nature'. By design, average performance rating is legitimate, since a scientist is not informed to get better until the rating is below average. Also, there are no structured mechanisms to improve performance by building competencies in the deficient areas.
- What is true on performance management of scientists holds good for other functionaries also.
- The existing accountability system is aimed primarily at ensuring that the annual budget is used according to approved heads and as per prescribed rules and procedures. Since decentralisation is limited, so do the responsibility, authority and accountability. Accordingly, there is no strict accountability system based on utility of research outputs or their relevance to stakeholders. Thus, ICAR's work culture is loaded more with input accounting and auditing procedures and less with output evaluation systems.
- In summary, ICAR governance follows a centraliseddecentralised format. It functions as a strong-walled trichotomous system. Majority of the scientists pursue research goals more than relevance and utility of output. The administration prefers rules to performance. The finance wing functions independently to check the level of adherence to the audit manuals and can torpedo any proposal. The synergetic interactions between the three wings are generally missing. The Council instead of full time guidance on policy-input and decisive strategy in streamlining research has perforce become another centralised bureaucratic layer. The fact that critical recommendations of several review committee reports are not operationalised is an indication of reluctance to implement change and to perpetuate stranglehold of the multi-layered bureaucracy over the system. There is urgency to set the governance mechanisms in order, if the ICAR is to meet the challenges of the new millennium.

Recommendations

Agricultural research influences livelihoods of two-thirds of Indian workforce. Majority of them is resource poor and suffers from disguised unemployment (overcrowding with marginal productivity). Incorporating their work needs and economic aspirations while conceptualising, designing, conducting, and refining research programmes is, thus, necessary. The unrelenting demographic pressure and social commitments made by the country in its National Agricultural Policy demand that agricultural S&T must support a

minimum growth rate of four per cent/annum without damaging the quality of soil, water, vegetation and air. If past performance of ICAR system is any indication then there should be no doubt on its ability to measure up to emerging challenges and concerns. However, success will depend upon the level of government support and control, and how forcefully ICAR reengineers its programmes, governance structures and systems. Apart from assuring adequate funds, government can right track ICAR activity and productivity by continuously supporting a performance-enabling environment. On its part, ICAR must redefine its mission, programme objectives and governance framework to inculcate system efficiency, effectivity and relevance. Participating scientists had following perceptions and suggestions:

- ICAR's autonomous status, as enshrined in the Societies Act of 1860, must be reassured and reaffirmed by the ICAR leadership—both political and apolitical. For this to happen it will be necessary to steer and translate the existing provisions of autonomy into practice by supporting the implementation of the relevant recommendations made by the earlier Committees.
- Also to sustain autonomous status of ICAR, it will be essential to de-link public funding from authority to self-govern in the first instance. This recommendation is in line with other similarly placed scientific organisations. Secondly, it is necessary to redefine the initial facilitative and link role of DARE. This will eliminate the persisting confusion of DARE exercising a command and control over ICAR's functioning. Any attempt on making DARE a superior entity over ICAR will violate latter's autonomous status granted by the constitution. Thirdly, ICAR must rewrite its rules and procedures within the ambit of *mutatis mutandis* facility available to it. The new set of rules and procedures should allow flexibility and speed in decisionmaking, remove interpretational ambiguities and build transparency in application. ICAR may consider hiring the services of a legal luminary for this purpose. Fourthly, ICAR needs to assert more as a scientific department and less as an administrative outfit. It can reach that goal by vesting, alongwith technical responsibility, greater administrative and financial authority in its subject matter divisions.
- In order to overarch economic development with technological solutions, it will be more than necessary that ICAR is steered by professionals who not only possess subject brilliance and real life knowledge but also have concern and appreciation for unique needs of scientists and scientific research. Suggestion on organisation and structure supporting scientific leadership is not new. It is being made to reconstate that it is the scientific leadership that in the past has paid rich dividends in ICAR and other autonomous scientific organisations like CSIR, DBT, ISRO and BARC. In order to strengthen technical support to GB, a Standing Sub-Committee of Professionals should be created to assist it in S&T related decisions.
- Intimately connected with the question of autonomy at the ICAR organisation level are issues related to decentralisation and delegation of powers to institutes, coordinated research projects and scientists. While autonomy requires legal sanction of sources external to ICAR, decentralisation does not. It is an internal matter. Armed with this proviso, ICAR has decentralised its functioning by disbursing a fair degree of independence to its constituent units, but not enough authority to manage in total the affairs and environs of research laboratories. Additional grant of

powers recommended by the earlier Committees will strengthen the process of decentralisation further.

- Scientists who have hardly any authority in managing their research can be empowered by institutionalising the concept of project based budgeting (PBB) which is already in practice across international research centres and national institutions like CSIR. The final report on the subject of PBB is hibernating in the ICAR for the last three years. When the government has directed to follow zero based budgeting for justifying investments of public funds, implementation of PBB becomes more urgent than ever.
- So that devolved powers are used without fear and fuss, clear definition of the roles and functions of administrative and finance divisions becomes necessary. In a scientific organisation, input of administration and finance should ideally complement the technical functions. Their concurrent involvement when administrative decisions and financial commitments are made will minimise the later objections and questions.
- Convergence of technical, administrative and finance functions is necessary to reach scientific goals in a time-bound fashion and with efficiency. Structurally, these three functions must originate and concentrate at the same point i.e. subject matter divisions/institutes. In no circumstances, the in-vogue multiple approval system (re-approval of already approved items) should be allowed to perpetuate any further.
- Apart from adjustments in the internal structure, ICAR can reach high standards of scientific output and efficiency by interfacing its education, research and extension efforts with other public (SAUs and other R&D departments) and private (industry) agencies. In pursuance of forging no-delay linkages, it will be necessary to design appropriate guidelines on collaborative mechanisms and inter-organisational arrangements.
- Group recognised that good governance leading to sustainable agricultural development would not be possible without implanting a set of core values (institutional ownership, commitment to strategic vision, responsiveness, efficiency, transparency, team working, workforce diversity, consensus orientation). Institutionalising such value systems require a shift in focus from enforcing rules and procedures to ensuring practice of principles and codes of ethics, both at the system and individual levels. In order to infuse such value systems sustained efforts and investments in human resource development will be absolutely necessary (see a later section).
- In place of annual assessment reports, participating scientists perceived to introduce a performance management system, which is non-punitive but focuses on individual building in deficient areas. It was recommended that performance should be measured in terms of quantifiable results against goals/objectives/targets set for the reporting period. The performance of a scientist should be weighed against performance of support sections also. The report should be made open to provide counselling for possible human resource development. The performance

management system developed by NAARM and endorsed by the Directors of the ICAR institutes should be operationalised expeditiously.

- So that various functionaries—both in research management and out of it—can be assessed and held accountable with respect to organisational processes (delegation of authority for the tasks for which an individual is responsible), compliance of accepted rules and procedures, outputs and impact and relevance and utility of the output. It was broadly recommended that accountability measurements should focus more on relevance and applicability of a functionary's output. Simultaneously, it was recognised to intertwine responsibility and authority together.
- While assessing individual's performance is important, to appreciate that research is largely inter-disciplinary and is carried out by teams of scientists. Necessary accountability systems that encourage and evaluate teamwork need to be developed. The administrative and finance personnel must also be viewed as members of the team and their performance should be measured with reference to contribution they make to the outcome and timely execution and completion of research projects.
- Since accountability and output are inseparable, so are accountability and performance. Whether it was performance management or accountability assessment, it was suggested to include the following elements: (i) self-identification of goals/objectives and targets, (ii) delineation of responsibility and definition of clear authority, (iii) self-assessment of performance/constraints/improvement and (iv) open evaluation of feedback for improvement and capacity building.
- In order to strengthen and institutionalise good governance through organisational change, building client perspective in science and technology initiatives, fostering linkages, instilling value systems, and introducing performance management and accountability systems, it was felt necessary to build talented scientific resource supported by equally skilled technical, administrative and financial services. The future was underlined to belong to informed, motivated, creative and committed humans. Since strength and competence of each individual is pivotal to build an effective team capable of meeting emerging social challenges and economic concerns, investments for development of human knowledge and skill, outlook and behavior was recognised as the core of organisational change. ICAR must launch a comprehensive human resource development programme to serve the training needs of various functionaries. The first requirement will be to make an assessment of training needs and scope. So that training gets prominence in employment conditions, an instrument of policy on HRD may be developed and put into practice.