Dr. Tushaar Shah
Senior Fellow,
International Water
Management Institute (IWMI)

Tushaar Shah is a Senior Fellow of the Colombo-based International Water Management Institute, and works out of Anand in western India.

Tushaar Shah, an economist and public policy specialist, is a former Director of the Institute of Rural Management at Anand in India. Over the past 35 years, Shah's main research interests have been in water institutions and policies in South Asia, a subject on which he has published extensively. His notable contributions have been in comparative analyses of groundwater governance in South Asia, China and Mexico. More recently, his interests have lay in comparative analyses of water institutions and policies across Asia and between South Asia and Sub-Saharan Africa. Shah has also worked extensively on energy-irrigation nexus in India. Shah was honoured with the Outstanding Scientist award of the Consultative Group of International Agricultural Research (CGIAR) in 2002. Recently, in the March 2014, he received the coveted 'Water for Life' UN Water Best Practises Award in Tokyo, Japan. His most recent publication is 'Taming the Anarchy: Groundwater Governance in South Asia' published by the Resources for the Future Press, Washington. Shah serves on the boards of several academic institutions and NGOs and is a director on the board of the ICICI Bank.

AERC Foundation Day Lecture 2014

Secret of Creating High Performing Knowledge Institutions (HPKI)

by

Dr. Tushaar Shah
Senior Fellow,
International Water Management Institute (IWMI)
Colombo

AGRO-ECONOMIC RESEARCH CENTRE
For the states of Gujarat and Rajasthan
(*Sponsored by Ministry of Agriculture, Govt. of India*)
SARDAR PATEL UNIVERSITY,
Vallabh Vidyanagar, Dist. Anand, Gujarat, India

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Published by

Dr. S.S. Kalamkar
Director and Professor
Agro-Economic Research Centre
Sardar Patel University, Vallabh Vidyanagar 388120, Anand, Gujarat.
Ph. No. +91-2692-230106, 230799; Fax- +91-2692-233106
Email: director.aerc@gmail.com; directoraercgujarat@gmail.com
Website: www.aercspu.ac.in; www.spuvvn.edu

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Secret of Creating High Performing Knowledge Institutions (HPKI)

Tushaar Shah[1]

Honourable Dr. Harish Padh, Vice Chancellor of Sardar Patel University; Dr. S. S. Kalamkar, Director of AERC; Dr. Mahesh Pathak, Adviser, AERC; Dr. Amritaben Patel, Faculty and Staff of Agro-Economic Research Centre, invited guests, ladies and gentlemen.

It is indeed great honour for me to be asked to deliver this lecture today when AERC Vallabh Vidyanagar completes 53 years of illustrious existence. I would like to compliment Dr. Pathak, Dr. Kalamkar and staff of the AERC for having done a wonderful job all these years in making AERC a significant institution in its particular field. I have, as has been mentioned, a reputation of being water expert. I have spent 30 years of my life doing research on water related issues. And yet when Prof. Pathak and Dr. Kalamkar asked me to speak on a topic on which I had done work for only six months of my life long carrier, I was intreagued by the request but, at another level I also understood because this particular topic is important to our country and there is little knowledge available on it. In the field of business, there are thousands books such as, One Minute Manager, or Seven Habits of Highly Successful People. But have you heard about a book on 'how to shape a good college principal or a great Vice Chancellor

[1] Senior Fellow, International Water Management Institute (IWMI) Colombo (email: t.shah@cgiar.org).

of University? Are there books about how to build a great institution?. There little systematic organised thinking on this important subject. We establish new institutions by the day. Over the years, we have set up several hundred new institutions in the country. Yet, we have little organized understanding of how to go about setting up an institution for excellence.

In 1996, when I stepped down as the Director of IRMA, my input was sought in two decisions. The World Bank was thinking of making a big grant to Government of Rajasthan to set up a world class water institution of excellence. The World Bank wanted to survey earlier experiences in India in setting up a Water Management Institute so as to avoid repeating past mistakes. During the 1980's, the USAID had given India several million dollars to set up sixteen Water and Land Management Institutes (WALMI). Today, there is one in Anand for Gujarat, one at Kota in Rajasthan, at Patna in Bihar, and there are sixteen such centres. The World Bank did not want to build more WALMI's; instead, they wanted to create an institution of significance with a broad mandate of research, teaching and training.

Another group that was thinking on similar lines was TATA trust. They had decided to make endowments to academic Institutions that showed dynamism and a social vision. Both the World Bank and the Tata Trust wanted my help to generate lessons about India experience in building knowledge institutions. The work that I am presenting before you today, and what Dr. Pathak asked me to talk about, is the report that I had submitted to the World Bank as well as to the TATA Trust. I have published several papers in international journals, some with high impact factor, and yet I find that the one piece of work that I did which keeps getting read over and over again is this report. I tried to publish it but no one found it worth publishing. People thought there is no science in it. They thought that it is not based on rigorous analytical research, but yet demand for this research report has not ebbed. I quickly take you through what report does. Basically it tries to understand: What is a knowledge institution? How can we access the performance of knowledge institution? What are the factors that make some knowledge institutions high performing and help them that stay that way? and what can we learn from the experience of such institutions?. This study is primarily based on experiences in India.

Conventional thinking is that if you want to build a great institution, you need to find a big piece of land, mobilize plenty of resources to construct large infrastructure, get it a big corpus, and you are done. You have set up a great institute. But the reality is very different. In India, we have thousands of such institutions which have great campuses but, like dynosores, they have big bodies and tiny brains. It is very easy to throw money around without building institutions of great quality.

I. Introduction

As mentioned earlier, this work which I am presenting before you is originally based on a report prepared for the Government of Rajasthan and the World Bank conceptualising a `knowledge institution' designed to serve as an intellectual resource center for Rajasthan's water resources sector. The idea of setting up a new institute was conceived as part of the planning for the

Water Resources Consolidation Project for that state. While this original purpose was not achieved, earlier versions of this paper based on that report were used variously: [a] by a committee constituted by the Government of Gujarat in evolving a plan for restructuring their Water and Land Management Institute; [b] by the Indian Planning Commission to generate a discussion amongst the Directors of 12 state level Water and Land Management Institutes to improve their functioning, vitality and contribution; [c] by Indian foundations, such as Sir Ratan Tata Trust to link their endowment grants to research institutions with strategic reorientation programs; [d] by the Swiss Development Co-operation, New Delhi in guiding the launch of a Panchayati Raj (Local Governance) Training and Research Institute in Kerala and in restructuring the Center for Electronics Development and Technology at the Indian Institute of Science, Bangalore ; [e] and by over a dozen leaders of Indian research institutes—and scores of NGO leaders--as a framework for a management audit. The present version incorporates some new ideas and insights on the subject generated in the course of the discussions as well as the implementation of some of its ideas. Institution building is always a context-dependent enterprise; as a result, many lessons learnt from the Indian experience would best apply in the Indian context. However, some of the more generic ideas may be of use to institution builders and strategic players in other developing countries as well, particularly in South Asia where there are important contextual similarities among countries.

In India, building of academic and research institutions has been viewed more as a fine art practiced by a small number of gifted individuals—such as Vikram Sarabhai, Homi Bhabha, V K R V Rao—who somehow developed a 'flair' for it and each built several in his lifetime. It is unlikely that the uncanny insight and wisdom each of these brought to bear in institution building can be replicated or transferred; even so, we have taken the position that comparative study of the approach these took does yield insights and broad patterns which might be useful to those embarking on the task of building new institutions but are not similarly gifted. The aim of this paper then is to take a first tentative cut at distilling some of these insights and broad patterns in understanding how knowledge institutions become high-performing.

Modern societies respond to upcoming opportunities as well as crises in different ways. Often the first response of policy makers and strategic players in such a situation, as in the water sector in many countries in the developing world, is stepping up investment in specialized research and capacity building needed to cope with it. The Indian experience has however shown that investment of capital is necessary but not sufficient for creating knowledge institutions of quality; and while there are countless examples in support of this contention, its validity is most evident from the experience of the World Bank and USAID in creating over a dozen state level Land and Water Management Institutes during the 1970's and the '80's. We suggest in this paper that more is needed than just financial capital to build research and capacity building institutions of quality and excellence in the developing world.

We have used the term `knowledge institution' broadly to describe an organisation usefully engaged in acquiring, creating, imparting and applying knowledge to address pressing needs of the society; and its value is determined by the quality and scale of its contribution in addressing social needs. Depending upon their design and focus, different knowledge institutions lay different emphases on these four knowledge-related tasks.[2] Judging the performance and value of a `knowledge institution' is a complex business;[3] however, in sectoral knowledge institutions with well-defined functional and spatial domains, the quality and scale of their contribution—and therefore, their social value--is often easier to gauge and assess. Moreover, such knowledge institutions are commonly created to play a significant role in a wider programme of sectoral change; in such situations, comparing the role actually played with that which was envisaged often provides a handle on assessing their performance and social value.

Many organisations create, acquire, impart or use knowledge; but not all of them will be called institutions. The literature on institution building draws a sharp and useful distinction between organisation and institution. All institutions are organisations; but the reverse is not true. According to Easman and Blaise (1963), for instance, institutions are 'organisations which incorporate, foster and protect normative relationship and action patterns and perform functions and services that are valued in the environment.'. Selznic considers an 'organisation as an *expendable* instrument for mobilising and directing human energies and resources' but an institution to be 'more nearly a product of social needs and pressures, a responsive adaptive organism.' According to Perlmutter (1965), then, every organisation is an institution provided it is characterised by three attributes: [a] Its functions and services are related to society's commonly agreed requirements as tested by its adaptability over time to human needs and values; [b] Its internal structures embody and protect commonly held norms and values of the society to which it is related; and [c] Its achievements over time have included influencing the environment in positive ways, as, for example, through the values it creates and makes available to other institutions which are linked to it. Similarly, according to Easman and Blaise (1963), the test of whether an organisation has become an institution are: [a] if it survives; [b] it is viewed by the environment as having 'intrinsic value'; and [c] specific relationships and action patterns embodied in it have become normative for other social units.

In India, as in most developing countries, governments at different levels have been the principal promoters and creators of knowledge institutions; and international donor support has been instrumental in many such promotional ventures. And yet, the history of Indian experience in creating such institutions has been replete with examples of institutions that, years later, fell

[2]Thus schools and colleges, and pure training institutions do much more for acquiring and imparting knowledge; pure research institutions do a lot more in acquiring and creating; applied institutions—such as management schools and design institutes—do a good deal of all four.

[3] even though, we, as lay public, commonly make such judgments, based essentially on the quality of products or of the caliber of people who work there or of its infrastructure, and so on.

far short of the expectations of their founders, and/or failed to play any significant role in their domains. Many such ventures declined to mediocrity as soon as they were born; some others followed suit as soon as donor support was discontinued. It was not often that such promotional initiatives blossomed into vibrant, dynamic institutions that assumed a significant role in their playing fields. Lay observers commonly believe that `knowledge institutions' decline because of resource crunch; but experience shows that often, institutions seem to face resource crunch *because* they are mediocre; similarly, prevailing leadership—both at board as well as operating levels is commonly blamed; but closer scrutiny suggests that often the seeds of poor governance and indifferent operating leadership of an institution were sown in the institution's birth-process itself. And if the Indian experience is any guide, it seems extremely difficult later to correct these `birth-defects' and pitchfork the institution to a significantly higher trajectory of performance on a *sustainable* basis[4].

II. First Order Bench-marking: <u>Best Operative Practices.</u>

Drawing Lessons from Existing Institutions

A basic lesson from the Indian experience in building institutions is that it is one thing to envision a great institution; it is quite a different thing to realise the vision. To explore how best to build knowledge-institutions of excellence, we analysed some 30 Indian institutions from various fields (physics, social science, management, water resources, forestry, and so on) and dealing with various levels of complexity (training to low-level functionaries to research in plasma physics). The challenge was to explore, based on such a review, a *process* for creating it so that it has the best chance of realising the vision outlined in the last section. The focus of our review of the experience of 30 Indian institutions then is on surfacing the *Operative Pre-conditions* that set apart High-Performing Knowledge Institutions (HPKI) from the rest.

The institutions covered in our review were drawn mostly from Rajasthan and Gujarat, but also elsewhere in the country such as Participatory Research in Asia (PRIA), Center for Science and Environment (CSE), Delhi and the Center for Electronics Design and Technology (CEDT), at the Indian Institute of Science at Bangalore. In addition to all these, visits were made to over a dozen or so institutions in Rajasthan and Gujarat—operating in a wide variety of fields-- specifically to draw relevant lessons in evolving the concept of the Institute; the consultant also engaged in conversations with several individuals[5] which yielded insights on their respective institutions[6].

[4] There are examples which suggest that a period under a good leader helps its performance to perk up; however, as soon as the leader withdraws, the institution settles to its original low-level equilibrium.

[5] Such as Katar Singh, Director of IRMA, Anil Shah, who had been the director of Gandhi Labour Institute and Gujarat Institute of Public Administration, Ahmedabad, Rajesh Tandon, Director of PRIA, New Delhi, Jane Covey, Director of the Institute of Development Research, Boston, John Farrington of the Overseas Development Institute at London, Deep Joshi of PRADAN, Vijay Mahajan of BASIX, Ranjit Gupta, formerly of IIMA.

There are no doubt major issues in comparison amongst institutions.[7] Even so, by taking recourse to methodological eclecticism, it seems possible to identify broad patterns and draw some general lessons. Following Esman, one can gauge the degree of institution building success with respect to a particular institution by asking questions such as: has it survived on the strength of its contribution? has it gained genuine autonomy? does its environment—particularly, its publics and stake-holders--recognise it as having intrinsic value? what is the quality and scale of positive influence it has exercised in its environment? What has been the spread-effect of its activities?

Doing a systematic and analytical job of assessing each of the institutions we reviewed would necessitate a major research enterprise. However, for our somewhat limited purpose, it seemed practical note that some of the institutions we reviewed have indeed done quite well in terms of the `*institutionality*' criteria although, even among them there are wide variations; some of these include the Indian Institute of Management at Ahmedabad, Institute of Plasma Research, Ahmedabad, Indian Institute of Health Management Research, Jaipur, Indian Institute of Science, Bangalore, Tata Institute of Fundamental Research, Bombay, Centre for Environment Education, Ahmedabad, Center for Science and Environment (CSE), PRIA, Institute of Rural Management Anand (IRMA) and such like. All these have already become widely recognised within and outside the country as significant institutions in their respective playing fields.

On the rest of the *institutionality continuum,* we find a great variety; some which are close to being in the high-performing class; but there also are many other state and national level training and research organisations that can hardly be called institutions; these suffer from different degrees of expendability in the perspective of most of their stake-holders. While these operate at differing levels of activity, there is little evidence to show that their activity makes much difference to their clients or to society. In an environment that was less indulgent and more demanding, many of these would have failed to survive. Between these two ends lie a whole range of institutions that have matured to different stages of `institutionality'.

[6] That we have drawn lessons from sectors ranging from animal husbandry to forestry to electronics and from fields ranging from participatory research to business management to plasma physics underlines our basic premise that issues involved in building knowledge institutions of quality are largely generic and have little to do with the sectors they serve. If this premise is valid, the central lessons we have drawn are as relevant for knowledge-institution- building in one sector as in any other. Which is the reason why we caste our net wide, and rather than meeting and learning only from water sector decision makers, we sought out and met anyone who had useful experience to share about promoting and building knowledge-institutions, no matter for what sector or domain.

[7] —such as, for example, WALMI, Gujarat with the Institute of Plasma Research, Ahemedabad or the National Institute of Agriculture Management, Jaipur with the Indian Institute of Management, Ahmedabad or IRMA, Anand--that vary greatly in terms of all variables that might matter; yet, the fact still remains that over a life of 15 years, Institute of Plasma Research is a world-leader in its field but many of the WALMIs, such as Gujarat's, have yet to establish their intrinsic value in the eyes of many of their stake-holders.

We want to use our review of these institutions to undertake bench-marking[8] of conditions akin to `best practices' commonly found in use in high-performing institutions. Our assumption is that if we can identify common features/practices that explain their performance, adapting these to a new institution can help it to `mimic' the high performing ones. Based on our review, it is our surmise that the critical differences amongst the HPKI and other institutions can be traced to *operative practices* taken together in seven distinct areas: [1] faculty selection and development; [2] portfolio of core products and services; [3] organisation structure and design; [4] infrastructure and support systems; [5] funding and resource generation; [6] organisational culture; and [7] management and operating policies. These together represent things that HPKI seem to do *differently* from the rest. We find these to be directly *operative* in setting excellent knowledge institutions apart from the rest as Figure 2 suggests.[9]

Table 1: Operative Practices in High and Low-Performing Institutions

Area	**Operative Practices in HPKI Class**	**Operative Practices in the Rest of the Institutions**
1 (a) Faculty Selection Procedure	Open search; merit and suitability-based;	Deputation from Deptts; heavy reliance on guest faculty
1 (b) Accent on faculty competence development	High and continuous	Low and/or initially temporary
1 (c) Reward Structure and Growth	Competitive in academia; merit and time-scale based growth; substantial non-pecuniary rewards	Linked to govt; time-scale based; little or no linkage between performance and rewards; uncompetitive and limited range of rewards;
2. Portfolio of Products and Services	Well-defined core portfolio creates powerful synergy; recurring feature; involve all staff who share responsibility for its quality and relevance; prestige-products; represents the core competencies of the Institution; draw out the best in the Institution; institutional excellence identified with quality of the portfolio;	Commonly, core portfolio of recurring products/services with joint ownership by all staff missing; Institutional output is equal to (or less than) sum of individual outputs; if a core product portfolio does exist, its indifferent quality becomes the bane of the institution.

[8] Bench-marking is a commonly used method of quality improvement; it consists of identifying organisations that perform well and incorporating their wisdom in your organisation.

[9] None of these *operative practices* by itself appears to be a sufficient condition for an institution to be in the high-performing class; however, each seems a necessary condition; and together the presence of all of them does enhance significantly the chances that a knowledge institution will achieve significance. To an outside observer, this way of analysing institutions provides a view to the bottle-necks that constrain high performance in institutions in the middle-performance category. It suggests that institutions like IDS, Jaipur or GIDR, Ahmedabad seem to do well along most *operative practices* except perhaps their resources position that obliges them to operate at sub-optimal faculty sizes (of 10-15) and keep them permanently deployed in revenue-earning projects. These might be able to perform better with better core funding support with which they can expand their faculty to an `optimal' size and provide them some reprieve from *projectitis.* Similarly, some other ICSSR institutions have recruited their own PhD graduates to the faculty for so long that they have little scope to bring fresh blood and new world views.

3. Organisation Design	Relatively Flat, non-hierarchical, matrix-type; power with professionals; promote multi-disciplinarity; performance oriented;	Hierarchical; bureaucratic and authority oriented; power with administrators; unable to adapt to performance needs
4. Infrastructure and Support Services	Good or excellent; well-used, well-maintained, adapted to changing needs	Poor, Good or Excellent; often under-utilised and poorly maintained;
5 (a) Pattern of Resource Generation	Resource generation without goal-displacement; Core Grants, Project Grants and Fees	Mostly core grants; *projectitis;* goal-compromise
5(b) Level of Resource Availability	Moderate to Plentiful	Inadequate, Moderate or Plentiful.
6. Organisation culture	democratic; stress on self-regulation, creativity, excellence & internality of locus of control	authoritarian, restrictive, discouraging creativity and innovation; externality of locus of control.
7. Management and Operations	Systems oriented towards Organisational Performance and Impact; high activity-level; sensitive to client feedback; strategic approach	Rule-bound, target-oriented, low activity level; insensitive to final impact of its work, to client feedback;

Members of the HPKI class seem to adopt a uniform or coherent set of *Operative Practices* in all the six areas; and since these correspond to high performance, we bench-mark them as best *Operative Practices.* In other institutions, we find best *operative practices* used in some but not all areas. However, in low-performing institutions, *operative practices* in most or all are problematic and different from those found in HPKI class. In low-performing institutions, inability to raise resources appears a common problem; however, this inability is often the outcome of a pathology that is deeper and more complex. These can become distinctly superior institutions only if the *operative practices* they deploy in many other areas change, too.

Faculty Selection and Development

HPKI leaders give high priority to talent-search; they treasure competence and talent; and judge the impact of their work often by the criterion of the quality of people they are able to get on-board and retain by `getting 'em big and by making `em big..'[10]. HPKI share three practices relating to the induction of professional talent: [a] they recruit through open search and selection process; [b] they invest effort and resources in building the competencies of their professional staff in a variety of ways and on an on-going basis; and [c] they create pecuniary and non-pecuniary rewards that makes them competitive in the talent market in their respective domains.

[10] That is by the dual strategy of enticing senior professionals well-known in a relevant field as well as by inducting young talent and helping them build professional reputations by giving them opportunities and space.

A core realisation commonly shared by high-performing knowledge-institutions is that their professional staff are their prime capital; and that their quality, productivity, creativity and commitment will in the long run determine the impact of the institution. Therefore, these place extraordinary emphasis on recruiting and inducting the best talent available in their fields. Many use stringent entry-conditions; higher level knowledge-institutions accept only PhDs from reputed institutions at entry-level positions. For long, IIMA avoided recruiting its own PhD graduates to minimise inbreeding.[11] IRMA established a vibrant Visiting Fellow programme to invite young scholars to teach and write; it also established a special senior-professor cadre with a much higher salary scale to attract senior academics. In most such institutions, there exist well-developed protocols to determine the suitability of an applicant for the institution. Commonly, such institutions have to operate in a highly competitive international talent market where the scale is tilted against them. Yet they succeed in attracting world-class talent by adopting a multi-pronged strategy: they align their salaries with the academia and try to match the best in the country; they provide facilities like good housing, medical care, schooling; they provide academic freedom, resources and support that professionals need to function at their best; but above all, over the years, these institutions acquire a prestige and an aura that attract scholars to them[12].

Especially in the formative years—but often, also later—high performing institutions invest heavily in building the competencies of their faculty. IIMA sent the entire contingent of its first group of faculty to the Harvard Business School, at that time the best in the world in the field of management education. Around the same time, several HBS faculty also lived and taught at IIMA. After he took over as Director of IDS, Jaipur, V S Vyas who was earlier Director of IIMA, sent, one by one, the entire faculty to spend a period each at IDS, Sussex. IRMA adopted a different strategy, but worked hard at faculty development. Institutions that have not made to the HPKI class seldom place the same emphasis on acquiring and investing in their human capital in the same way as HPKI do.[13]

[11] IIMA recruited Indian PhDs mostly from US Universities. Ravi Mathai, the first Director of IIMA toured the American academia regularly to hand-pick the members of IIMA's first group of faculty.

[12] Plasma Research Institute, Ahmedabad operates a Masters' Programme largely to develop its faculty. It offers a scholarship to attract bright students; picks up the best of the lot and puts them through a PhD Programme. IRMA also tried inducting her own graduates with years of field experience as managers and assisted them to undertake PhD studies to acquire research capability. IIMA operates a Doctoral programme but for long avoided recruiting her own Doctoral students to avoid inbreeding and to promote heterogeneity.

[13] There are notable exceptions. A bright spot of the USAID-World Bank supported WALMI project was to put several batches of irrigation department staff from 10 states through an intensive faculty development programme; but the benefit of this has been largely lost since many officers sponsored to these programmes were not available to WALMIs. IMTI, Kota has also introduced an innovative policy—that offers higher salary, better perks and higher designation to those appointed to IMTI-- that makes it possible for them to select competent candidates from the departments for a posting in IMTI. Similarly, the Rural Technology Institute, Gandhinagar selects its staff by open selection process

Core Portfolio of Products and Services[14].

A striking feature of HPKI is the core portfolio of their offerings through which the world knows them. These offerings may include educational programmes, training products, research and other knowledge products. The characteristics of the core portfolio that seem relevant are that: [a] each core product/service is an *institutional* commitment and imparts a regular, recurring pattern to the institution's work; together, the portfolio forges the main link between the institution and its client system; [b] the faculty is built carefully to add value to the core portfolio; [c] offering it entails co-ordinated involvement of all or most of the institution's faculty and staff; typically, when competently delivered, the value such core portfolio helps the institution to create is far greater than the sum of individual contributions of its members; [d] individual professional effort outside the core-portfolio is deeply influenced [e] within as well as outside the institution, perceptions about the quality, vibrancy and customer-support for the core portfolio is widely used as a mirror to judge the well-being of the institution; and [f] the criteria used for performance assessment of individuals as well as groups within the institution is dominated by contribution of each to the core portfolio.

In best-known management institutes, the post-graduate management programme is generally at the centre of the core portfolio; however, as they gain experience and credibility, most management institutes also include recurring executive training programmes as part of their core-portfolio. Delhi-based PRIA built a massive goodwill and prestige in South Asian NGOs through a core portfolio that was dominated by a Training of Trainers (TOT) Programme which offered an unusual mix of personal growth laboratory, social analysis and management techniques in a single, exquisitely offered capsule; after doing hundreds of such TOTs, when a fatigued PRIA phased out the programme to do other things, there was a massive hue and cry in the NGOs which identified PRIA with the TOT, its core product. Center for Science and Environment, Delhi led a highly successful environment-awareness revolution in India through an entirely different portfolio of core products that used a judicious combination of research and journalism to produce a series of Citizens' Reports on the State of India's Environment which had a profound impact not only within India but throughout the world[15]; CSE was so closely identified with these that it decided to bring out these reports on an annual basis. Soon, it found that the institutional effort needed to produce such a report every

rather than from deputationists from departments. These exceptions—which set the IMTI, Kota and RTI, Gandhinagar— apart from many other mediocre institutions we reviewed prove the point that getting talent through search, creating suitable reward structures, and investing in competency building are the hall-mark of high-performing knowledge institutions.

[14] I am grateful to Professor P M Shingi of the IIMA for drawing my attention to this crucial operating practice when he commented on an earlier draft of this paper.

[15] Many countries adopted the idea and began encouraging their institutions to bring out similar reports; in India, Prime Minister Rajiv Gandhi invited the CSE director Anil Agrawal to first present the first report to his Council of Ministers and then to the Parliament. The CSE's State of India's Environment reports are translated in many Indian languages and are widely read.

year can sustain a fortnightly popular magazine without much incremental effort; so CSE added Down-to-Earth to its core portfolio which has extended the reach of its work outside the research and academic establishments and helped it talk to the common man and woman about the environmental issues facing him or her.

When knowledge institutions get committed to offering a core portfolio of products and services on a regular, recurring basis, it has profound impact on these institutions as socio-technical systems.[16] It is a core portfolio of institutionally committed valued products and services that transforms a bunch of independent knowledge-workers into a professional *community.* It imparts a regular, predictable rhythm and pace to the work-life of the institution; it creates avenues for members with different competency-bases to contribute and grow; it impels members into situations of group work; it generates recurring feedback on individual and institutional performance; it generates institutional knowledge capital and output-streams that members take pride in; and it often provides a powerful anchor to the individual professional work outside the core portfolio. Above all, a core portfolio with institution-wide ownership and responsibility implies that the institution cannot be the abode for independent researchers each working by himself or herself; for IRMA, running a high-pressure post-graduate programme in Rural Management means that everyone has to chip in a manner that makes sense for the entire programme. For CSE to put Down to Earth on the news stands every 16th day means that everyone on the staff has to write copy by a tight deadline that fits in the editorial make-up of each issue.

Institutions that have yet not made it to the `HPKI club' often lack an institutionally -committed core portfolio of products and services; when they do, the core portfolio either fails to attract patronage within the institution and/or outside either because the products/services do not address the needs of the client system or because they are of indifferent quality. In the institutions we reviewed, however, the absence of a core portfolio of products/services was a more common syndrome in the `other class'. Institutions such as the Jal Sewa Training Institute of the Gujarat government did have a full calendar of training programmes; but these were generally not of a recurring nature, seldom owned widely within the Institute and

[16] Viewing human organisations as socio-technical systems was promoted aggressively by Eric Trist and others from Tavistock Institute during the 1960s. The basic premise underlying the notion is that the attainment of optimum conditions in any one dimension does not necessarily result in a set of conditions optimum for the system as a whole. In practice, working on joint optimisation of social and technical systems in an organisation involves focusing upon ways to shape social processes to achieve more efficient use of human resources, upon the technological processes used by the organisation and the constraints it imposes on the design and operation of the social system, and upon the mechanics of change from the initial socio-technical system design and its gradual adaptation to new environmental demands. Socio-technical theory—a way of analysing and designing human organisations—incorporates several stable and recognisable propositions such as: [a] organisation design must fit the goals; [b] employees must be involved in designing the structure of the organisation; [c] sub-systems must be designed around relatively whole and recognizable tasks; [d] support systems must be congruent with the design of the organisation; [e] high quality of work life should be provided; [f] changes should be continually made as necessary to meet environmental demands.

respected in the client system, and were offered in an indifferent manner with the help of guest lecturers. In many social science research institutions, however, the absence of an institutionally committed core portfolio was a common feature; in these, few individual researchers excelled and got visibility; but the institutions by and large failed to harness the synergistic creativity of a well-orchestrated professional *community.*

Organisation Design

High performing knowledge institutions choose organisation designs that tend to: [a] be of matrix type; and/or have flat, non-hierarchical structure; [b] promote and facilitate multi-disciplinary groupings and regroupings; [c] vests functional authority in professionals rather than administrators; [d] constantly strive towards a functional balance between professional and support staff; and [e] adapt to the performance objectives of the institution. Their main concerns tend to be: to promote collegial, democratic culture and suppress hierarchy, to promote cross-disciplinary interaction, to strengthen self-regulation by the professionals and to ensure that professionals get all the support they need for their work.

HPKIs tend to be notoriously unorthodox in their organisational design. Even after 18 years of working, for example, IRMA refuses to organise its 30-strong faculty into disciplinary or functional groups. This is the case with many medium-sized institutions. The Center for Environment Education has allowed its organisation design to evolve over years into programme groups under programme co-ordinators. IIMA expects its members to belong to more than one functional areas. HPKIs tend to eschew hierarchical reporting relationships. In IIMA, the faculty is organised into functional areas whose chairmanship is rotated and is commonly held by a junior member of the area. In both IIMA as well as IRMA, leadership of key programmes too rotate and are often held by young staffers. Faculty members can commonly belong to more than one disciplinary groups/areas; and members from different groups/departments routinely work together as a team on research projects or training programmes. A central top management concern is to ensure that design and structure do not interfere with or restrict such free-wheeling work relationships and communication flows. Depending upon their age, seniority and past performance, professionals may be in different scales of pay; but the organisation discourages these from becoming hierarchies; and young and the old, junior and senior amongst the professional staff are able to function as equals. The organisation in HPKIs is designed to promote partnership rather than patriarchy.

Another key design issue is the balance between professionals and the administration and the support system. One aspect is the allocation of power and authority; in high-performing institutions, the design ensures that administration and support staff are organised to serve the requirements of the professional staff and to help them function to the best of their abilities. Another issue is the size of the professional versus support staff; in HPKIs, increasingly, the tendency has been to farm out many of the services so that professionals—who also perform the management roles—can spend more of their time and energies

to professional pursuits.[17]. In many low-performing institutions, support staff take over the institution; and is run as institution `of the staff, for the staff and by the staff'. [18]

Infrastructure

HPKI acquire adequate or even excellent infrastructure; however, many mediocre institutions too have excellent-looking infrastructure which may be put to little effective use. In sum, while good infrastructure is necessary to create a HPKI, infrastructure alone can by no means make one. The best *operative practices* of note that we found in HPKI were: [a] they seek infrastructure appropriate to their needs; [b] their infrastructure tends to have high utilisation rates partly because they avoid over-building and partly because of their high activity level; [c] they regularly invest in maintaining their infrastructure and in adapting it to their changing needs; [d] they tend to manage their key infrastructure facilities—such as libraries, computing centers, laboratories—with high caliber professional staff to meet variegated—and often, complex--user demands in a satisfactory manner.

High performing knowledge institutions keep their infrastructure relevant and suited to their needs. Because they operate at high activity level and are able to generate resources, they keep investing in maintaining their infrastructure in good condition and modifying it to suit their needs. In contrast, many institutions created with a generous initial grant tend to have expensive but often unsuitable infrastructure; they may have sprawling campuses that are fractionally utilised. Moreover, since donor support is not available for maintaining these facilities, they fall into disrepair as soon as the `technical collaboration' comes to an end. Over time, such institutions are left with huge library buildings with a tiny collection, or a huge hostel with insignificant occupancy, plush offices for the faculty but no faculty. In contrast to this, we came across Delhi-based PRIA (Participatory Research in Asia), a HPKI-class institution with modest infrastructure which is so well-adapted to its high activity level that it is used to the best effect to enhance the impact of the institution's work.

Funding and Resource Generation

A closely related aspect is the pattern of resource generation. High-performing institutions in our review are either able to establish a compelling case for the resources they need or are able to generate resources they need to perform and grow in normal course of their work with minimum compromise on their

[17] Some of the newer institutions in high-performing class have adopted innovative practices; the Plasma Research Institute in Ahmedabad has only scientists and officers; all support functions are either self-performed or farmed out so that the key task of the officers is to manage the relationships with contractors.

[18] In several low-performing Indian knowledge-institutions, especially in the government sector, we commonly find that, over the years, the organisation acquires the character of a dinosaur; they accumulate a huge army of under-employed support staff to serve a very small group of professional staff. Gandhi Labour Institute in Ahmedabad, for example, has a faculty of less than 10 and a support staff of nearly 700; similarly, many WALMIs too have a tiny staff of professionals and a huge support structure often of over 100 peons, drivers, gardeners, technicians and clerks.

goals and the aspirations of their professional staff. A core value cherished by the Center for Science and Environment is to never allow its donors and supporters to influence its editorial policy; to defend this value, it has studiedly avoided repeated offers of support from the Government which is often at the receiving end of CSE's writings and environmental advocacy work. Other knowledge-institutions *are* able to generate the resources they need but only by working directionlessly to earn their keep or by diluting their core mission. Low-performing organisations have little or no capacity to either make a compelling case or to compete for resources in grant or fee-based activities. As a result, over time, they shrink, and manage to survive *somehow*. Managing to survive *somehow* versus surviving-*in-style* then is the primary difference between the HPKI and the `other class' in the way they mobilise resources.

HPKI are generally—though not always—able to secure adequate or even plentiful resources; however, even mediocre institutions are often well-funded at least during a phase in their life cycle. Like infrastructure, adequate funding is necessary but not sufficient condition. Indeed, many HPKI have to operate at high activity level in order to survive. This is particularly true of institutions like the EDI, Ahmedabad or PRIA, New Delhi or TERI, New Delhi which have little or no core funding support; and have to constantly justify the value of their work to their resource providers. Slightly less acute is the problem of institutions like the IDS, Jaipur or GIDR, Ahmedabad which get a portion of their core budget funded though core grants from state government and the ICSSR. Most such ICSSR institutions however have been facing growing funds-crunch as the ICSSR's—and correspondingly, the matching state government—contribution has either stagnated or declined in recent years. These then begin to suffer from *projectitis*, a common condition found in knowledge-institutions when their professional staff end up devoting the bulk of their energies running projects that earn for their keep, and have little left to pursue issues they consider interesting and significant. This condition is neither excessively harmful nor confined to Indian knowledge-institutions. Several knowledge-institutions of excellence have learnt to rein in *projectitis* and do creative and influential work while generating the resources they need to survive and operate, often in style. World-wide, knowledge-institutions have to compete for resources in a market-like situation where the rules of the game are pretty nearly similar to what obtain in any market place.[19]

[19] This is very well illustrated by the letter to me from Dr John Farrington on how the Overseas Development Institute, London manages its funding and resources in the post-Thatcher era. It illustrates how the internal dynamic and organisation of a knowledge institution might change if it has to generate all its resources from its activities and yet enable its faculty to do work they consider meaningful and exciting. ODI has an annual turn over of US $ 6 m and, many similar institutions in UK and elsewhere in the developed world mimic ODI's hugely interesting operational *satisficing* philosophy which, in Farrington's words, is: `to maximize the amount of interesting and relevant policy research it does consistent with just covering its cost'. This makes such an institution a cross between a management consultancy and an ICSSR institution in India. The academics who work at these get their professional kick from such `interesting and relevant research' as comes their way; but since there is no agency that will pick up their bills, they have to settle with a `satisficing' rather than a maximizing outcome.

Many of these highly productive western academic workplaces have to live by their wits; they are not eligible for university core funding nor for government subventions, nor are they endowed as are some Indian institutions such as IRMA.

The entire institute is often financed by project funds. And since research is brought and carried out by Researchers, the entire institution's energies are focused on `leveraging' the time and capacities of the researchers. Among other things, this means that the support staff—which includes the Director—are kept to the minimum and are under pressure to provide high quality support to researchers who earn their salaries. Researchers also earn the entire establishment cost besides their own salaries. The basic currency in these institutions—the *numeraire*—is the Researcher Work Day (or, as in IDS, Sussex, work point) —which is charged for at a rate that includes his/her own salary plus the support staff salary plus the over-heads which commonly comes to 70-80% of the researcher salary. Many roles/functions get performed though exchange of work credit rather than through use of authority or hierarchy or co-operation. In IDS, Sussex, for example, a faculty group has to contribute work points to the account of the member who will co-ordinate the group's work for an year. You can buy your way out of an activity you do not like or are not good at by earning work points where you are at your best.

Typically, each researcher is required to bring a minimum number of *paid* work-days/year; in ODI, it is around 210 for senior and 175 for junior researchers. Typically, then, the senior you get, the higher the daily rate (Us $ 750/day being common for senior researchers) you have to command and the larger the number of paid days you have to bring. To command that kind of rate, you have to build a professional reputation of someone who can deliver quality research/training products on time. This system of financial targets thus certainly creates a strong output-orientation which is why we keep witnessing a non-stop stream of research products from some of these `production lines'; however, the pressure of financial targets for earning for the Institute may often be too much on individual professionals; some institutions have therefore begun moving in the direction of group financial targets in which some degree of individual and group under-performance can be hidden and tolerated.

One might have thought that such a system can sustain only with strong private incentives. This is far from the truth. In institutions such as the ODI, researchers get the standard UK university scales; their annual increments and growth prospects too are much the same as in a University department. In some institutes, the only additional reward for achieving stiff financial targets is the freedom to retain earnings equivalent to 20 days/year; but according to

Resource generation in knowledge-institutions we reviewed falls in four broad patterns: [a] they get core support fully or mostly from the government as in the case of most scientific institutions as also in departmentally-controlled institutions such as WALMI/IMTI, SIRDs, Jal Sewa Training Institute of Gujarat, GLI, Ahmedabad, State Institutes of Rural Development, and so on; [b] government grants-in-aid meet a substantial portion (60-70%) of their core budget (that is salary and overheads) as in IDS, Jaipur; GIDR, Ahmedabad; IIMs; [c] they have interest income from a corpus that can meet a substantial proportion (60-70%) of their core budget, as in case of IRMA; [d] they need to generate a substantial portion of their core budget (60-70%) from funded projects and service fees (such as training programmes, etc) as in the case of EDI, Ahmedabad and PRIA, New Delhi.

Each of these has its pros and cons. However, budgetary support to knowledge-institutions has come under increasing strain during the 1990s. Science institutions—which have strategic significance and are least able to compete for resources in a market-like situation-- are least affected; but other institutions like universities, IIMs and IITs are hard-hit. Many of these have however adapted well; and have been able to encash

Farrington, this too has to be won after hard negotiation; and, for all that hard negotiation, an additional income of US $ 10-12 thousand is all that might accrue as reward for a year of high all-round performance for a researcher. The long and the short of it is that achieving high individual financial targets—and making the institution financially self-sustaining—is increasingly becoming part of the standard job-profile of a western academic. This is something unheard off in Indian the academia; and in professional institutions which are trying financial self-sustainability have to place on offer generous revenue sharing plans to entice faculty members to earn revenue for the Institute.

their reputation and quality to rapidly increase the fee-income from their programmes. These are then transforming themselves from grant-based into fee-based organisations. Low performing knowledge-institutions—such as universities, WALMIs, SIRDs—however have been largely incapable of responding creatively to the challenge, and have often become pathetically dependent upon their parent departments. In such institutions, resources available progressively decline and barely cover salary and overheads; amongst the first to be sacrificed are core infrastructure, such as library, computing and labs. Gradually, dejected professionals leave, and new ones cannot be attracted; and the institution gets left with clerks and ministerial staff. This is the familiar pathology of declining knowledge institutions.

Implications are several: [a] excessive funding for infrastructure is often putting a millstone around the neck of a new institution which later finds it beyond its capacity to maintain and adapt it to its needs; [b] resource sufficiency seems no guarantee for high performance; if anything, it breeds complacency and inertia; [c] moderate degree of tension about resource generation often acts as a stimulant because it keeps up pressure on the institution to constantly prove the value of its work; it also encourages a high activity-level; [d] excessive tension about resource generation often causes goal displacement and may keep the institution from achieving its full potential; [e] compared to annual budgetary support, it seems more cost-effective and sensible to provide an institution with a corpus or an endowment with interest income large enough to provide stability but not so large as to permit complacency and inertia; [f] every new knowledge-institution should be encouraged—nay, obliged—to develop and operate a portfolio of fee-based programmes which should contribute a certain minimum proportion (say, 20-25%) of the annual budget; nothing promotes quality and excellence more than having to sell a service or a product at a non-trivial price.[20]

Organisation Culture

Amongst the most striking distinguishing features of high-performing knowledge institution is an organisation culture that: [a] emphasizes self-regulation by members; [b] promotes twin accountability to professional peers and to the institution; [c] encourages democracy, openness and high quality colleague-ship; [d] places heavy accent on creativity and innovation. A key role that culture plays in these institutions is to establish a commonly shared conception of professional attainment—often

[20] Many institutions conduct scores of training programmes every year; but these are priced so low that they hardly cover even the direct costs; many actually charge a negative fee and have to provide strong inducements to attract trainees. A major role of the administrators holding charge of Gandhi Labour Institute is to coax other administrators to depute trainees to their programmes. Jal Sewa Institute gets a training budget from the Department of Personnel which routinely lapses because of its inability to attract trainees even at zero-or negative fees. In contrast, many high performing knowledge institutions have transformed training into a major source of resource generation; IRMA has successfully marketed a 6-week management training to NGOs for Rs 35,000 now for over a decade; PRIA sells a similar programme at Rs 75,000! IIMs are able to generate 30-50% of their annual expenditure from their fee income. And EDI, Ahmedabad survives almost wholly from fees besides a small contribution from corpus income. But all these institutions pack their training products with quality and substance; after all, they have to sell these products year after year.

unwritten--that drives its members to engage in pursuits that make the institution significant in its domain.

The conditions in which researchers excel has been a matter of great interest internationally and continues to remain a gray area;[21] however, it is widely accepted that these sharply differ from normal production organisations. And one aspect that often fails to get captured adequately in surveys is the culture of the place, which is difficult to define[22], impossible to quantify and yet so crucial a part of the work place. Shaping an organisation's culture is the most distinctive act of leadership; many other top-management jobs can be delegated to second-rung managers/professionals; but no one in the organisation can play the culture-building role as powerfully as the leader can, who has a compelling need to mould the young institution to his ideals. As Sartre used to say, `Culture is the product of man: he projects himself into it, he recognises him in it, that critical mirror alone offers him his image.' That is perhaps why some of the finest institution builders tend to end up focusing all their energies on culture-building.[23] That is also why first leaders of

[21] Such research often involves surfacing researchers' `wish list' from their work places. Many such exercises can be found in international literature. One survey of US researchers (Hinrichs 1977), for instance, listed 13 basic job factors desired by scientists: 1. Freedom to publish their work and to discuss it with other members of the scientific community; 2. Opportunity to associate with and be stimulated by higher caliber colleagues; 3. A technically trained management; 4. An organisation with a reputation for advancement of knowledge; 5. Freedom to choose problems or projects on which they are to work; 6. A research director and staff with first rate reputations as scientists; 7.adequate facilities, resources, and lower level technical assistance; 8. Opportunity for advancement and flexibility in advancement policies; 9. A good salary; 10. security; 11 suitable living conditions; 12 Individual treatment; 13 opportunity to continue formal education while working.

[22] Even so, many have tried to struggle with it often awkwardly; witness the following attempt in a popular cook book for managers Phegan (1996): `A culture [of a work-place] is like a magnetic field; it influences and aligns everything in it. The culture is `what people do and what their actions mean to them..[it] is the ideas, interests, values and attitudes shared by the group..[it] is the backgrounds, skills, traditions, communication and decision processes, myths, fears, hopes, aspirations and expectations ..of the people. Your organisation's culture is how people feel about doing a good job and what makes equipment and people work together in harmony.. it is history expressed in the present.. Newcomers take up the organisation's culture. We transmit culture through dress, style, and language, by what we say—and do not say—and what we do—and do not do..' . If this sounds wooly, so is organisational culture. But it is there all right as the most significant determinant of high-performing human systems.

[23] Years after he stepped down from his tenure as the first Director of IIMA, Ravi Mathai [RM] was interviewed Udai Pareek [UP] which began as follows (Pareek 1994:55):

UP: what is the most important thing in institution building? What contributes most to institution building?

RM: As far as IIMA is concerned, I think the single-most important aspect was building a self-regulating culture within the institute through building people. This means trying to build attitudes within the institute community that would foster and sustain self-discipline. It also means building attitudes of people outside the institute such that they expect a high degree of self-discipline from those within. Influencing the external expectation is important because it reinforces integrity within the institute, and it reduces pressures and procedures and rules that would have resulted in imposed regulation. By self-regulation based on self-discipline, I mean our capability of being able to evolve norms of behaviour regarding the institute's goals, tasks. cooperation in work, interpersonal relations, innovation, the use of authority, acceptance of responsibility...'

new institutions play a critical role and leave behind their imprint that far outlasts them. The kind of culture they build often tends to endure because the environment—internal as well as external--expects the institutions to be `that way' which becomes a self-fulfilling phenomenon.

While early leadership is crucial, the way an institution `feels' also depends greatly upon its present leadership and its overall condition. In course of our review of institutions, we found it difficult to *analyse* the cultures of different institutions; but aspects of each institution's culture spilled into our narration of the `sense' we developed about it. In brief interaction with them, for example, the professional staff of the Plasma Research Institute, Ahmedabad conveyed a powerful `sense of pride, prestige and national importance' associated with their institute and their work. At the CEE, the powerful sense we got was about `creativity and the freedom to engage in meaningful pursuits'. In PRIA, it was `the opportunity and space available to grow under a highly respected and considerate professional leader'. It did not seem necessary that positive cultural vibes emerge only from institutions operating at advanced levels (such as high science or PG education) or those outside the government; even in institutions engaged in simple tasks and within the government, one came across positive cultural vibes. Rural Technology Institute at Gandhinagar was one such case. The brief on RTI, prepared by Mahendra Singh, my consulting associate, sums up his `sense' as follows:

`The Institute is actively involved in bringing EDI and NID professionals to help tribal-rural woman/youth to upgrade their craft, their designs and their business development skills; doing this is the mission of RTI. The average age of Institute employees is less than 30 years, the institute is 8 years old, it is young, energetic, free from `babucracy'; this vibrant environment of the institute seems to keep the enthusiasm of officers and staff at high level. Regular presentation of their work by staff-members at monthly meeting of the entire group is a must. Even non-technical staff-members are expected to present their work-in-progress, new things they have learnt, sharing of innovative ideas.. (even if they sound foolish!); Officers and staff members feel pride on their association with RTIG. Officers do not get individual chambers, they all sit along with their groups in big rooms. Whenever they find a new plant/machine/technology, they bring it and house it within their RTIG. Every month a '*Shramdan*' day is organised to clean up and decorate the campus . Support services --transport, security, attendants, gardners, helpers in R&D workshop, peons-- all are on contract. They seem to want no dead weight around. Decision-making is participatory, meetings are an appropriate forum to decide work and projects to be taken up by any staff member. Work- rotation is practiced, this year it's mushroom, next year, it will be leather goods and pottery or bee keeping. Work culture is informal and people compete to achieve targets. Institute seems free from political interference and the Director is responsible for the day to day functioning of the institute.'

But on another Government-institution in Gujarat, again involved in low-level training work, the `sense' Mahendra Singh got was the following:

`The institution has ample funding to run training but the grant lapses because it can not find trainees.. the morale of the faculty—such as it is—seems to be at the bottom-low.. this place is the dumping ground for engineers not-wanted in field or busy in fighting their departmental inquiries in corruption cases.. the main job in managing the institution is to find trainees for most of the courses run by it. Trainees, who are forced to attend the courses, are least interested in class-room work .. Ninety per cent of the staff is work-less and attend office only to collect salary. Employees of all levels are ashamed of their association with this institution; I could talk to none who seemed proud of being here. Though lot of engineers are on rolls of the Institute, in actual conduct of programmes, hardly 3-4 of them participate; the rest of the faculty is drawn from a list of outside speakers. Courses are designed to fit the competency of the available guest faculty, less to fit the objectives of the institute, and the least to suit the needs and interests of the beneficiaries of the courses. The Institute has excellent infrastructure which is grossly under-utilised. Hostel rooms, seminar halls, class rooms are rented out to anyone who can pay a nominal charge. There is a constant tug-of-war between the Institute-faculty and the parent department which allows no freedom to the Institute. For example, the parent department has banned the institute from conducting any programme during February- April period.. without giving any reason..'. [24]

Organisational culture in high performing knowledge-institutions places a high premium on creativity of their professional staff. Here, creativity is not used in an arty or aesthetic sense; creativity plays a crucial role even in scientific as well as applied, problem solving research or even in design of highly successful training or education products. Indeed, management institutions place a great deal of emphasis on promoting creativity in managers.[25] Creativity here refers to the faculty possessed in human beings for integrating into a new form the facts, impressions, or feelings which result from experience. It is the

[24] Just to round off our story, here is our `sense' of the feeling of its professional staff about the current state of a high-level social science research institution which had seen better days: `The Institute is loaded with unproductive sub-ordinate staff. An army of peons, office-clerks, garden- maintenance workers, typists, accountants is being paid basically to idle around in the Institute. The leadership of the institute is resigned to basking in the old glory and marveling at the political clout of some of the faculty members. There seems to be no gainful activity that can possibly engage the employees of the institute. The faculty has grown old and enthusiasm is missing. Recent freedom to accept outside consultancy assignments has perked up the faculty a little but, for most, getting such out-side research/consultancy work is a far cry. Government grants just meet salary and establishment expenses, but there are no resources to do any work. Neither is the institute able to find a direction nor does it visualise a future for itself; the condition of the Institute is best summarised in the words of its Director: "we are in a complete mess".

[25] Because, as Pradip Khandwalla, a former director of IIMA suggests, good managers differ from bad ones in their `resourcefulness'—which implies capacity to generate new solutions by creative thinking.

ability to make new connections between facts or symbols for gaining new insights into the relationship between bits of existing knowledge. Stimulating the creativity of professional staff requires a special kind of work environment because highly creative people tend to be different in the way the relate to their work and to their work place.[26] Researchers have also identified various environmental correlates of intellectual creativity[27];

[26] International research in creativity has established a consensus on this issue. It suggests, for instance, that creative professionals tend to be intensely dedicated to their work; they have a strong commitment to their professional goals and are generally highly self-confident in pursuing their goal/s; they tend to be independent and non-conformists--in an intellectual though not social sense; they are intelligent though there is no direct and significant correlation between IQ and creativity; they tend to have a different pattern of interests in the sense that they are more interested in concepts, in the meanings and implications of ideas and things than in facts; they are interested more in abstractions than in details; amongst the six basic human values, they tend to be high on aesthetic and theoretical values and low on economic, social, political and religious ones; they have great capacity to withstand ambiguity and the inner tensions it causes, in fact, they thrive in it; finally, they tend to be overwhelmingly intuitive, focusing more upon possibilities--or the realm of 'what could be'--than in facts -- the realm of 'what is'.

[27] Hinrich summarises the existing thinking on Social and Environmental Correlates of creativity as follows: [a] The environment must provide the researcher the opportunity to recognise and investigate pertinent problem areas to gain initial problem-sensitivity; and opportunities that challenge her creative capacity and demand solution. [b] too much knowledge may often be a disadvantage; they may be 'sure' that a particular line of attack will not work and there fore not try it. [c] a culture that insists on conformity and adherence to established principles and received wisdom may curb problem sensitivity and creativity. [d] frequent stimulation and encouragement by leader results in high academic performance. [e] frequent contact with colleagues with dissimilar values and previous work experience results in high performance; therefore the case for research teams with heterogeneous values and backgrounds seems strong. [f] young groups tend (the age of the group and not of its members) to be more creative than old groups; this supports the practice in many high-performing institutions for teams and task-forces. [g] if you produce large enough quantity of ideas through group brainstorming, some will turn out to be good; studies also show that significant proportion of good ideas tend to come from brainstorming groups. [h] high intellectual performance is generally associated with high 'science' orientation than with high 'institution' orientation.

however, a central aspect is the work-place culture and management style. It is in these two aspects that high performing institutions differ most markedly from the rest. Many low –performing organisations have a tradition of authoritarian, directive leadership which is antithetical to creativity. And the styles leaders choose often depend upon the self-confidence they experience about the level of competency and imagination they bring to their job. When the leader is highly competent and motivated, a participatory management style is readily preferred by him/her. When the leader is of low competence and motivation, he is more comfortable with a laissez-faire leadership pattern and allows drift and directionlessness; but under all circumstances, a pattern of directive leadership—commonly found in low-performing knowledge-institutions--is the least effective in academic groups.

Management and Operations

Even after an outstanding founding leader launches an institution in a high trajectory, subsequent leaders need to do an adequate job of maintaining its *institutionality,* build upon the base of institutional capability and adapt it to newer demands and challenges facing the institution. Doing these requires

different but equally important leadership qualities and capacity. In dynamic high-performing institutions, impacts of variations in leadership styles and capacities are absorbed partly through culture preservation and reinforcement. IIMA, for instance, has undergone several leadership successions; each director since Ravi Matthai has brought different style, strengths and approach. Yet, the cultural fabric of IIMA has remained largely in tact; traditions of faculty governance, of faculty freedom, of group work and peer-review, of rigour to be undergone in developing new programmes—which were formed in early years--have sustained with reinforcement from successive leaders. And these ensure a minimum level of quality and excellence in anything that IIMA attempts.

An aspect closely related to organisational culture is the kind of systems that are evolved by an institution to manage its day to day affairs. The practices one finds in high-performing knowledge-institutions are informed by the over-arching concern for achieving institutional objectives through the creativity and performance of the professional staff. The systems that we find in high-performing organisations reflect these over-arching concerns. Most such institutions have some kind of systems aiming at the assessment of individual work and accomplishments in a non-threatening environment; similarly, many institutions use systems for planning individual, team and the entire institution's work. High-performing training institutions go to great lengths to collect feedback on their training work and use it to improve their performance; similarly, high-performing research institutions commonly use rigorous reviews before publishing research. IIMA appoints a Committee for Future Directions every few years to help the Institute in its strategic planning. Many other institutions commission external reviews; IRMA, for instance, itself commissioned a review of its core programme as well as the Institutes work after it completed a decade; PRIA, New Delhi commissions such evaluations of itself nearly every five years. In sum, high-performing institutions devise systems and mechanisms primarily to enhance their performance and excellence. And a delicate role that managing them involves is in easing the tensions between the systems and the tradition[28], and instead, ensure that the systems reinforce a culture of creativity, self-regulation and high performance. Indeed, this is often how good practices and norms get institutionalized.

Last but not the least, besides the manner in which an institution performs tasks, a crucial dimension of management has also to deal with the level and mix of activities that the institution works with. HPKI tend to operate at high level of activity; they tend to do a large *quantity* of work during any given time period compared to low-performing institutions. They tend to be strategic in choosing their activity mix in the sense that they engage in periodic collective reflection in exploring ways to strengthen the linkages between the *input* (of institution's resources and creative energy), the *outputs* produced, the

[28] Such tensions, if not carefully managed, can destroy a `culture' which takes years to build. A good example is the tension between a tradition of self-regulation and self-responsibility by professionals and a system of performance appraisal. At one level, one might see a paradox between the two; and yet, high-performing organisations—not only in academia but also in business—manage to have both, and are none the worse for it.

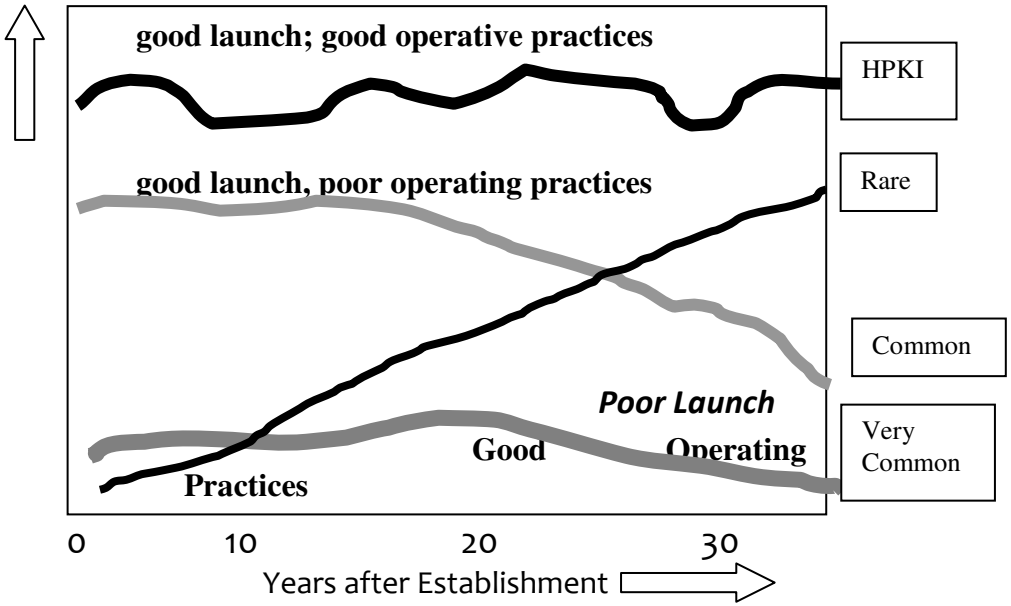
outcomes resulting from outputs and their final *impacts* in their playing-field. Low performing knowledge-institutions tend to be limited in `reflective practice'. Many of them operate an enormous portfolio of training and other programmes that are somehow rendered in a mechanistic manner and used to create impressive-looking and glossy brochures and annual reports. But they seldom engage in reflections about what is ultimately the impact of all their labours and what can they do to improve it.

In sum..

Understanding why some knowledge-institutions perform well on *institutionality* criteria but not others is a complex business. If we take a snap-shot view of a sample of institutions, then we find that HPKIs differ from others in the way they do several things that affect their work. In this section, we grouped what appeared to us to be significant and relevant *Operative Practices* we found in HPKI into six areas/clusters, and suggested that these probably are the best *Operative Practices* that a knowledge-institution in Indian setting try to emulate.

The question is: why is it that so many institutions are not able to create such practices that appear so unexceptionable. After all, there is nothing very profound about these. It does not take extensive research in institution building to figure these out. Many of the best practices read like motherhood statements and common-place wisdom that would come intuitively to reasonable men in charge of institutions. And yet, so many institutions that were created with high hopes and great vision have degenerated into epitomes of mediocrity because they fail to adopt most of these practices. Why should this be so?

Figure 1: Launch Quality and Institutional Performance



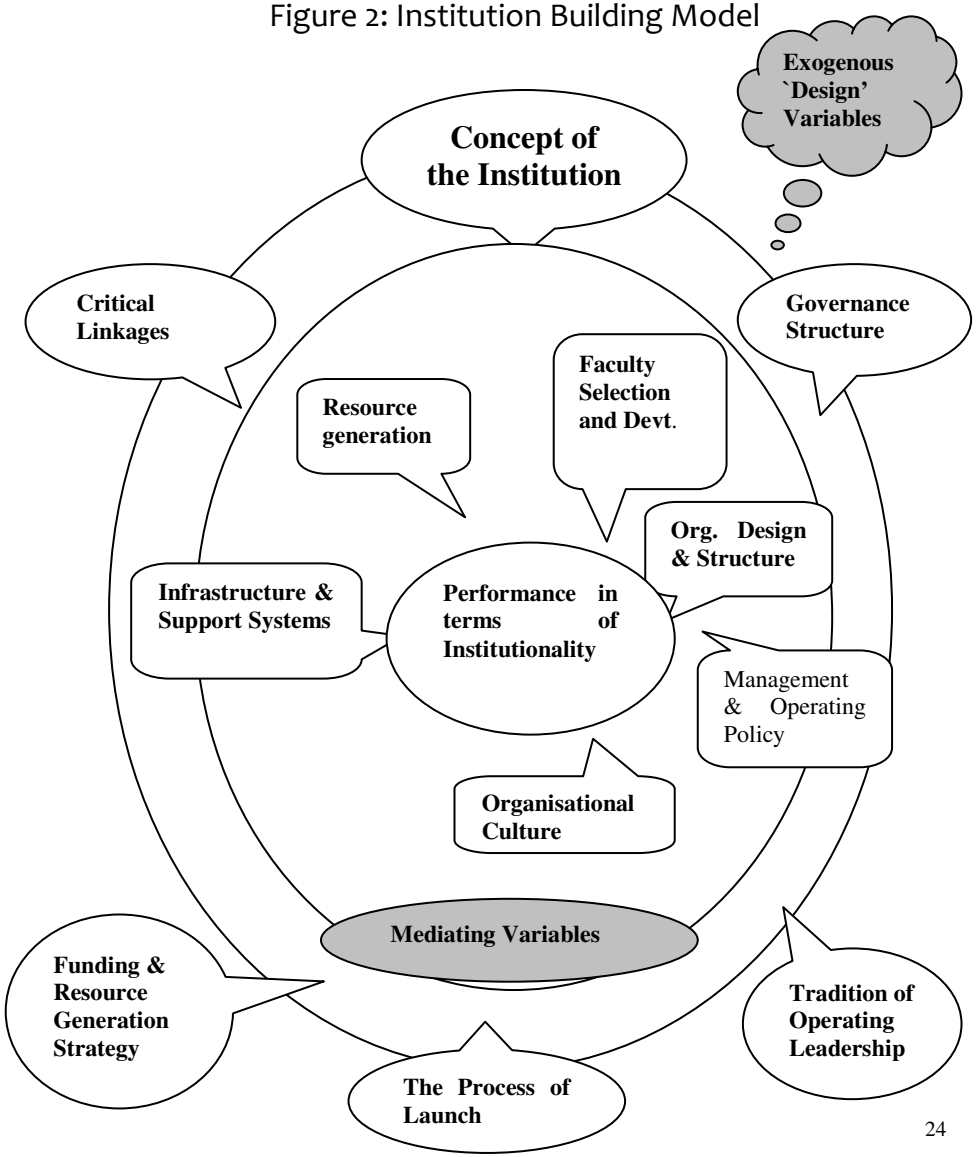
Our speculative thesis to explain why so many Indian knowledge-organisations are unable to join the HPKI-club by choosing their *best operative practices* is rooted in their birth condition. One might suggest that many of what today are mediocre institutions got embroiled in a pathology of stagnation and decline soon after their birth such that they had no chance nor the `entrepreneurial energy'[29] to choose and establish best

[29] a phrase often used very aptly by my friend Deep Joshi to describe (what I have always thought as) the patient, creative and empathetic `building' work that needs to be done by someone over the formative period of a new institutional creation before it takes shape and stabilises.

operative practices appropriate to the institution's needs and context. In contrast, as we have alluded elsewhere, many institutions we find in the HPKI-club today were started in a fashion that made it possible—even necessary—for them to adopt best operative practices. The caliber and commitment of the people who got involved in the process of their creation and building were of an exceedingly high order; these institutions often started with such high standards and expectations in all spheres of their working that there was little chance of a permanent decline later except through some terribly unfortunate spell of ineptitude in management or inability to adapt to changing environmental conditions. True, high performing institutions do go through bad spells in their life cycles; however, experience suggests that if they manage to retain their `culture' and capacity to adapt, they tend to bounce back and find their form.

This cannot be said about a majority of `other' knowledge-institutions in our review. If they get an outstanding leader who can adopt some or all of the `operative practices' we find in HPKI, the institution may look up for a while but then decline to its low-level equilibrium after the leader fades away. Such bouts of high-performance are thus often temporary; and it seems that making them sustainable may require that the institution is completely *relaunched* with a new design and initial process. If our analysis so far is plausible, then an important lesson in promoting the new Institute is to ensure that it is conceived, designed and launched right; and this implies that the promoters adapt the best *`launch'* practices suitable for the Indian conditions. In the following section, we attempt to undertake this `second-order' bench marking to derive what these best *launch* practices might be.

Figure 2: Institution Building Model



III. Second-order Bench-marking: Identifying Best `Launch' Practices.

Inductively, a review of what are high-performing knowledge-institutions in our sample today suggests that their `launch' was marked by careful work in six areas. In our assessment, choosing `best practices' in these areas might enhance substantially the probability that the new Institute will adopt the best *operative practices* we identified in the last section and, in turn, evolve into a HPKI-class institution.

Concept.

An intuitive lesson from the Indian experience in building knowledge-institutions is that great institutions tend to start with great expectations. It is seldom that institutions that were started as staff training centers of a government department grow into knowledge institutions of excellence. With sagacious leadership and able management, they become good—or, even excellent—staff training centers but no more[30]. What few great knowledge institutions that India has—Indian Institute of Science at Bangalore, Tata Institute of Fundamental Research, the four Indian Institutes of Technology, the Indian Institutes of Management—started with audacious concepts. And this, not only in terms of the resources made available to; in fact, India is filled with mediocre institutions that were born with a silver spoon in their mouths, as it were. They were audaciously conceived in terms of the expectations their founders had of them; experience shows that the expectations at the time of founding often became self-fulfilling governing ideas of purpose that tend to drive the institution. For Ravi Mathai, the first Director of the Indian Institute of Management, the vision appropriate for IIMA was not to train business managers but `to be able view the nation's operating system as an integral whole' and nothing less. Homi Bhabha similarly had a grand vision for TIFR; he once wrote: 'An institution for fundamental research should be open to all scientists of eminence, whatever the country to which they belong..' 'Bhabha wanted to create in India something much more than a scientific institute. He wanted to establish a center for research that would radiate to the rest of the country standards as high as any to be encountered anywhere.' Also, '[Bhabha] was very keen that the finest scientists should visit India and lecture at the TIFR and among those who came at his invitation were several Nobel Prize winners in Physics, including Professors Niels Bohr, W Pauli, P.A.M Dirac, P.M.S Blackett and Sir John Cockcroft.' (Lala 1984:99). Bhabha pursued his dream with seriousness and alacrity. Amongst the first to be invited to join was Professor Kosambi, the well-known mathematician. In April 1944, he wrote to Dr S Chandrasekhar inviting him to join TIFR and 'to build in time an intellectual atmosphere approaching what we knew in places like Cambridge and Paris'.[31] The founders of knowledge-

[30] In saying this, one by no means wants to undermine the society's need to have excellent staff training centers for all manner of organisations. But the capacity of even excellent training centers—which acquire and impart knowledge--to influence social environment and produce large spread effects would tend generally to be less compared to institutions that excel in creation and application of knowledge.

institutions of excellence tend to do them two sterling services: first, they give them a great purpose which continues to inspire all those involved in the institution long after the founders were gone. Second, they eschew the propensity for designing institutions to perform *one* or *a set* of tasks which seem important at that particular point in time; they encouraged thinking about institutions as ageless creations which will mould and remould themselves to serve purposes important to society at different stages of its evolution.

Overall, then, HPKI's are often audaciously conceived with great vision. But their founders have more than just a grand vision to offer; they bring enormous entrepreneurial energy, resources, talent, foresight and imagination in designing and launching the institutions in a manner so that they match their expectations. When high expectations are backed by founder-commitment and design-suavity, they tended to become self-fulfilling; when not, the institution often declines from `sublime to ridiculous'.

Governance Structure

An important *Launch Practice* that HPKIs invariably follow is to ensure that they have *interested*, *respected, autonomous* and *self-perpetuating* governance structure (boards/management committees) with members drawn from a cross-section of their stake-holder groups and interested publics. Their Boards play an important role in shaping the operating framework of the institution as also in defining its relationship with and standing in its environment. The Boards are often the symbol and the cause of the autonomy of these institutions. IIHMR, Jaipur has an internationally recruited board. IRMA carefully searches for new board members from some of the most eminent personalities in the field of development. Plasma Research Institute at Ahmedabad, similarly, has a star-studded Board including some of the internationally renowned Indian scientists besides senior administrators and an industrialists, too. Many institutions—such as the IDS, Jaipur and IIHMR, Jaipur have two-tier governance structures with a large board that meets once an year; but a smaller sub-set of the Board that meets more frequently[32]. In a majority of `other' institutions, the Board is

[31] George William Curtis, a man of letters who taught at Michigan visited Andrew D White, the founder president of Cornell University in October 1858. To Curtis, "[White] unfolded to me his idea of the great work that should be done in the great State of New York. Surely, he said, in the greatest state there should be the greatest of universities; in Central New York, there should arise a university which by the amplitude of its endowment and by the whole scope of its intended sphere, by the character of the studies in the whole scope of the curriculum, should satisfy the wants of the hour. More than that, he said, it should begin at the beginning. It should take hold of the chief interest of this country, which is agriculture; then, it should rise, step by step, grade by grade—until it fulfilled the highest ideal of what a university should be. It was also his intention that there should be no man, wherever he might be—on the other side of the ocean or this—who might be a fitting teacher of men, who should not be drawn within the sphere of this university." Precisely ten years later, on October , 1868, White founded Cornell University (Bishop 1984).

[32] Each board has its unique personality that sets it apart from others; but the experience of the HPKI in our review will vindicate our point that interested and respected boards representing diverse stake-holder groups are a necessary condition for a good knowledge-institutions—regardless of whether it is a government-sponsored/supported institution (such as the CEE, Plasma Research Institute, IIM) or otherwise (such as IRMA, EDI, Ahmedabad, PRIA, New Delhi). Take the case of the IDS, Jaipur; it has a fully independent board with strong

government representation. The Board has 20 members including the chairman, vice-chairman and director who doubles up as the member secretary. Planning Secretary, Development Commissioner, and Secretary, Education of GOR are ex-officio members. In addition, there are two ICSSR nominees selected by the ICSSR. The VC, Rajasthan University, Jaipur is the ex-officio board member; one more representative Rajasthan academic is selected from amongst the VCs of four other Rajasthan universities and the DG of CAZRI, Jodhpur. Two faculty nominees are appointed by the chairman at the recommendation of the Director. Two eminent physical/natural scientists--one from Rajasthan and another from elsewhere are nominated. On the same lines two social scientists and two economists are appointed too. Finally, there is a representative selected from the Rajasthan NGO movement and two eminent academics are invited to the Board. A board term is for two years; and no member can serve for more than two terms. The chairman and vice chairman are elected by the sitting board. Every director automatically becomes Sr Visiting Fellow (honorary) of the Institute upon retirement.

Like IIHMR, Jaipur, IDS too has a two-tier governance structure. The full Board meets only once every year along with the General Body. The real governance function is performed by an 8 member Committee of Directors (COD) which meets quarterly and decides on key issues facing the Institute. Major policy decisions taken by the CoD however are finally approved/ratified by the full Board. The MOA of the IDS formally delegates certain powers to the CoD. The CoD is but a subcommittee of the Board and its meetings as such are chaired by the Chairman of the IDS Board. Its representational structure too is akin to that of the Board. IDS has already seen three board chairmen; Dr M V Mathur, the first chairman was an eminent scholar himself; Mr MMS Valli, the second chairman was the chief secretary of Rajasthan at the time; Dr Udai Pareek, the present chairman too is among the best-known behavioural scientists and practitioners of India. According to Dr Acharya, the IDS, Director, each chairman has brought different strengths and perspectives to the governance of the IDS. Having an eminent academic as the chairman has its own advantages; but a respected administrator as the Board chairman -but not ex-officio--too has its advantages especially if, like Mr Valli, s/he is also academically inclined. He can help greatly in cutting though the labyrinth of government bureaucracy; and he can help IDS get the profile it needs and deserves in official development strategy and programmes.

often *disinterested*[33], seldom widely known and *respected* and never *autonomous*. This is most commonly the case in institutions that function as departments of state or central government—such as the Jal Sewa Training Institute, Gandhinagar, Rural Technology Institute, Gandhinagar, and all WALMIs and IMTIs.

Critical Linkages

Even when created and supported by a government, HPKIs are able to carve out a relationship with the government and other strategic organisations in their respective domains that is supportive and nurturant of their autonomy at both operating as well as governing levels primarily because they have *interested, respected* and *autonomous* governance structures. Two kinds of linkages seem important in the formative years of a new institution. One key relationship that most knowledge-institutions in India have to manage carefully is with the government agency directly connected with it. The other is with one or more knowledge institutions within or outside India with which many new institutions have collaborative ties. We find three patterns of relationships with government: [a] institutions are completely autonomous; and their relation with the government is purely client-service provider type, as in the case of PRIA, IRMA, etc; [b] the institutions are promoted, supported and governed by Government, as in the case of WALMIs and

[33] Evident in the low frequency of its meetings and poor attendance of board members, as also in the fact that the board members have hardly any interaction with the institution outside of board meetings.

IMTIs, Jal Sewa Training Institute of Gujarat, NIRD, Hyderabad, SIRDs in various states, etc; it matters little whether these are departments of the government or registered as autonomous societies; and [c] institutions are sponsored, promoted and supported by the government but have acquired an autonomous stature and enjoy a relationship with the government that is supportive and nurturant, e.g., IIMs and IITs, Plasma Research Institute, TIFR, Center for Environment Education, Ahmedabad, or IDS, Jaipur.

In the first pattern, institutions often *seek* a meaningful relationship with the government either by inviting administrators to serve on their boards by name (as PRIA does) or ex-officio (as IRMA does), or both (as IDS, Jaipur does). The expectation is to benefit from the experience and knowledge of administrators, and at times, to gain informal support in accessing government. In the third pattern, the government is the provider of core funding; and therefore, there is an element of control in the relationship. However, in their wisdom, the government has placed in to the hands of an autonomous board the responsibility of managing the institution in the best interest of the country; the boards of these institutions hold them `in trust' for the government. It is significant that almost all notable Indian knowledge-institutions—the `temples of modern India--fall in this pattern; they were sponsored and promoted by the government; they continue to have a `parent' department in the government which provides them core grant-in-aid. And yet, these are autonomous institutions in all practical senses of the term.

These are so vastly different from—and superior in terms of `institutionality'—compared to institutions embroiled in the third pattern in which institutions sponsored and promoted by the government function as a department, *de jure* or *de facto.* Compare, for example, the Center for Environment Education, Ahmedabad and WALMI, Anand; in their legal status, both are the same, being registered societies. But the similarity ends there; and it is instructive to see how, while being within government, CEE has been able to operate as a vibrant, autonomous institution.

The first is the design of CEE's governance structure which is fiercely autonomous and still enjoys the GOI's faith in their `trusteeship' of the institution. In a governing council of 19 members, there are only two nominees of GOI (Secretary and Financial Advisor of MoE&F) and one nominee of GOG (Secretary, Department of Forests). The remaining 16 members include leading individuals from different walks of life[34] Most importantly, the Council is chaired by Nanubhai Amin, a Gujarat-based industrialist better known for his entrepreneurial and promotional work in the field of non-conventional energy. The second factor has been the balancing role played by Kartikeya Sarabhai, the CEE director who has been able to ensure that the CEE does live up to the Center of Excellence image of the MoE&F

[34] Including: Mrinalini Sarabhai, Mallika Sarabhai, S M Nair from WWF for Nature(India), H Y Mohan Ram, Kiran Karnik of Discovery Channel, Ashoke Chatterjee of NID, V B Eshwaran, and M K Prasad, besides the Directors of sister-institutions (VIKSAT, CHETNA, Nehru Foundation, Vikram Sarabhai Community Science Center). Director, CEE is the ex-officio member and Administrative Officer is the Member-secretary of the Board.

and at the same time to ensure also that the Center does not get caught in the quagmire of the GOI bureaucracy. Whether some one else in the place of Mr Sarabhai would have been able to do it or not is an open question, especially during the formative years of the Center. But now that the CEE has established its pre-eminence, chances are that even a lesser successor might be able to maintain the balance. The third—and an emergent—factor that explains functional autonomy of CEE is its growing financial self-sustainability. From 90%+, the share of the core grant-in-aid from GOI in its annual budget has now reduced to around 50%; CEE is able to generate the remainder of its annual requirements of around Rs 4.5 crore from project funding and other sources. [35] Very nearly the same has been the story of IIMs, IITs and many other `government' institutions; the government helped launch them; it continues to support them; but all these have acquired personalities independent of the government; and can now perform as `going concerns' playing significant role in the society.

WALMIs' and SIRDs are in the opposite situation. The government launched these; it even registered some (like WALMIs) as societies to create a sense of autonomy; but it never really let go off. In case of the WALMIs, while USAID-World Bank support lasted, these had broad-based boards with some non-government members; soon thereafter, their Boards were reconstituted and down-sized; in effect, the role of governance got vested in a smaller Executive Committee consisting entirely of government officials in their ex-officio capacities. The Institutes' director and staff got drawn from departments on deputation; and they never managed to learn the art of transforming themselves from grant-based to fee-based organisations. As a result, they remained perpetually dependent on the department for funding. In states like Gujarat, with the department facing a fund-crunch, the WALMI's funding too got squeezed; as its future became bleak, it became more and more of a punishment posting for senior professionals from Irrigation and Agriculture departments; but for the army of drivers and peons hired over its life, the WALMI became a life-support system. Thus, many a WALMI in India ended up as an institutional dinosaur with elephantine body and peanut-sized brain—huge clerical and ministerial staff on a vast campus and infrastructure but only a miniscule professional staff. Once such an institution fully assumed departmental culture, there was no internal need or demand for autonomy; members of such institution want things to improve but only within its present `design' parameters as a government institution.

Besides government, there are also other critical linkages that HPKI may have at the time of *launch,* essentially in the form of collaborative arrangements with well-known institutions in the West for the purpose of developing a core group of initial faculty as also to derive inputs to design the first set of programmes. IIMA had such a relationship with Harvard Business School; IIHMR too has similar collaboration; IDS, Jaipur sent its entire faculty to IDS, Sussex one by one. Initial group of

[35] In fact, during 1998, it is likely to generate Rs 18-20 lakh from the sale of its publications and other material. Now that it has emerged as a significant institution in its playing field, CEE has no dearth of project funding; if anything, its chief concern at this juncture might be how not to get swayed by project funding in areas outside its mandate.

WALMI faculty had benefit of a high quality competency-development programme. This kind of arrangement has several beneficial impacts: [a] first, they constitute an important element of a careful launch for the Institution; [b] second, it helps the first faculty group to evolve a shared culture; [c] this is helped further by the fact that the collaborating institution often serves the bench-marking role and if it is of a high quality, it sets a similarly high standard for the new Institute; and [d], finally, such collaboration, if carefully managed, results in substantial capacity building in the new Institute faculty.

Tradition of Operating Leadership

High quality of operating leadership, especially during the formative years, is the hall-mark of HPKI class; equally critical is the institutionalised tradition of open and careful search overseen by the Board for suitable leaders subsequently. How these manage to get/develop outstanding operating leadership is far from clear; what does seem clear is that the chances of an institution getting/developing it are high if: [a] the institution has *interested, respected, autonomous* board that recruits the leader through a *search* for appropriate leader material; [b] the incumbent has a stable and reasonable tenure during which s/he has a broad mandate, operational freedom, reasonable access to resources; [c] at least in the formative years, the leader devotes her/his attention and energies to *process* issues of institution building.

The quality of operating leadership is at once the most prominent and most complex factor to come to grips with. All HPKIs enjoy its presence most of the time and all institutions in low-performing classes suffer from its absence most of the time. It also seems to be at once necessary and sufficient condition for high performance; even otherwise insalient institutions undergo spells of performance-upswings when they chance into outstanding operating leadership.[36] But institutions like IIM, Ahmedabad, IDS, Jaipur, IIHMR, Jaipur, IRMA, Anand have been able to ensure, with different degrees of success, that over the long haul, the institution can sustain in a high trajectory of performance despite several changes in the operating leadership. How they do this is only partially understood; but the role of the *interested, respected* and *autonomous* board seems crucial in this; moreover, *process-oriented* leaders in the formative years establish norms of self-regulation, standards of individual and institutional performance, and a culture of collective leadership which to some extent prepares the institution to adapt to leadership change. The institution building work done by late Professor Ravi Matthai so ably studied and documented by Professor Udai Pareek is an outstanding example of this (see, Pareek 1994). But in a less celebrated manner, early operating leaders in most high-performing institutions leave their stamp essentially though shaping the organisational `culture'.

There seems little evidence to suggest that their education or training prepares outstanding operating leaders to play this role well; far from it. Ravi Matthai, IIMA's first full-time Director had never undergone any management education nor even a day's

[36] Reasonably good examples that come to mind are WALMI, Gujarat during the tenure of late Mr D T Buch and IMTI, Kota under its present leadership.

training in management. Similarly, some of the best-known institution builders that India has known—Homi Bhabha, Vikram Sarabhai, VKRV Rao, Vergese Kurien—had no formal education that prepared them for the trail-blazing role they played in building some outstanding Indian institutions. The same can be said also about those who have provided operating leadership to most HPKIs. This is perhaps why each has had a different `model' of institution building, which they evolved intuitively and through `reflective practice'. However, there probably are many common strands that tie these together; some we could identify are that: operating leaders who left their stamp took their time; they viewed their leadership role as life-time's work, and in that spirit, gave all they had to their job; they functioned truly as `reflective practitioners', learning a great deal `on-the-job'; besides shaping the organisation's `operating culture', they spent enormous time and energy on building and nurturing productive relationships and critical linkages.

It is difficult to prescribe things that promoters of new institutions can do to ensure high quality operating leadership; but it is simpler to identify things they do that ensure the absence of such leadership. WALMI, Gujarat saw 15 directors in 12 years; IMTI, Kota saw 30; Gandhi Labour Institute at Ahmedabad has seen long spells when its directorship was held as an additional charge; and SIRDs in many states have been run by additional-charge holders most of their recent lives; in these, there is no question of an operating leader giving himself enough time to leave a mark. With varying intensity, short and uncertain tenure of the director has been the hall-mark of state government institutions. Then, few incumbents in such institutions come as the result of a search process for suitable director material; indeed, many come to their jobs as punishment posting. Far from doing a life-time's work, Directors in these institutions often went out at the first opportunity. In sum, then, operating leaders in low-performing classes of institutions are neither interested nor generally capable of the kind of institution building work needed to create HPKIs. The primary reason, in most cases, is the way these institutions are designed and launched. They often lack *interested, respected* and *autonomous* boards; and are commonly run as government departments. As a result, they do not have conditions in which a potential leader would find it easy or possible to inculcate a culture different from a government departments.

Funding and Resource Generation Strategy

It is not enough to build infrastructure for a new institution and provide it funding for initial years in the hope that subsequently, either the government will pick up the bills or the Institution will find *some* way of supporting itself. Some thinking needs to be devoted to outlining a strategy of resource generation for the institution on an ongoing basis. This is necessary because if, after an initial period of support, the institution is expected to be self-supporting, then its very concept needs to be designed accordingly; moreover, during the initial honeymoon period, the Institute needs to focus its energies on developing capacities for resource generation.

The demerits of leaving a new Institution to budgetary support from government are obvious from our review. State

governments have in recent years become increasingly strapped for funds; and training and research institutions in the government sector are generally the first to suffer budget cuts. Central government institutions—such as NIAM, Jaipur, NIRD, Hyderabad and LBSNAA, Mussourie seem better off in terms of budgetary and other support; however, they all have other problems of governmental control. Only scientific institutions of strategic importance—such as TIFR, Plasma Research Institute, IISC, Bangalore and a few such others—have depended upon budgetary support from GOI and still retained functional autonomy. For state level institutions, then, it seems wiser to consider innovative arrangements for funding. Some new institutions outside the government sector seem to have useful lessons to offer in this respect. IRMA is one such. Soon after its establishment, it was given a sizeable corpus along with norms for its use; these made sure that IRMA could meet a substantial portion of its operating budget from corpus income on a perpetual basis. This gave it both autonomy and stability.[37]

The trick in financing a new Institution *for* excellence, then is to give it a capital grant for infrastructure to begin with and an endowment/corpus that would provide it with the `right' degree of financial security. Over-providing it may be as harmful as under-providing it; and the `right' level of funding is to assure it of 50-70% of its core funding in *real* terms from a non-discretionary source for say a 15-20 year period.[38] This done, the design of the Institute should: [a] stipulate the manner of use of interest income from the endowment/corpus after providing for

[37] IRMA was created by the National Dairy Development Board to serve as an intellectual resource centre for rural sector, in particular farmers' organisations. The NDDB requested the Swiss Government to fund the infrastructure for the new Institute; the Ford Foundation provided it a grant to built a high class library; both the Swiss and the Ford also gave funds for faculty development programme. It still left the question of the Institute's operating costs. The NDDB was concerned that IRMA should be functionally autonomous; so after picking up its bill for an initial period of five years, they gave it a corpus of Rs 10 crores which was managed by a sub-committee of the Board. The norm evolved for the use of its interest income was that: [a] the Director would never draw down the corpus; [b] he would plough back into the corpus a portion of interest income that would protect its real value from erosion from inflation; [c] the remaining deficit in the operating budget would be met from fees and project grants that IRMA faculty would generate. The beauty of this scheme was that it helped IRMA feel truly autonomous; the corpus gave it stability and a sense of solidity but the corpus can meet only 50-60% of its operating costs; the faculty and Director are therefore always under pressure to generate resources by pricing their programmes and services high; and to command high price, they have to adhere to fairly high standards of quality. If the corpus had fully provided for IRMA for all times to come, it might not have served it as well.

[38] If, say, the annual interest yield is i %, inflation rate is r%, and the Institute's operating budget Y is expected to grow at an annual rate of g%, then in year n, the requirement of the Institute will be

$Y(1+g)^n$

and the corpus and total corpus income will grow respectively to

$C(1+r)^n$ and $i*C(1+r)^n$

However, only $(i-r)(1+r)^n$ would be available for use, the rest of the income being ploughed back to the corpus. To meet say 65% of the operating budget in year n, the initial size of the corpus would have to be:

$C = 0.65* Y(1+g)^n / (i-r)(1+r)^n$

If Y=2 crore, g =8%, i=15%, r=5%, then in the 5th year of operation, the Institute's operating budget will rise from Rs 2 crore in year 1 to Rs 2.95 crore in Year 5, then it needs an initial corpus of Rs 15.18 crore to meet 65% of its growing annual budget every year.

inflation, and [b] outline the kind of training, research and consultancy work that it can do to raise additional revenue.

Managing the Launch

The last best *`launch practice'* is that the launch process itself is managed with excellence. By `launch' process, we mean the process beginning with the point when the decision to establish the Institute is taken to the point where it begins to function normally in its own infrastructure. It would include decisions like: choosing a legal entity, registration, drafting of bye laws and Memorandum of Association and initiating procedures for getting necessary clearances such as FCRA, income tax exemption, etc; constituting the first Board, appointment of the first director, securing appropriate site and land for the infrastructure; operationalising funding arrangements, recruitment of the first group of core professional and support staff, initiation of collaboration with relevant institutions, development of infrastructure and start up of activities and programmes. It is in innocuous and apparently harmless things done during the launch process that the seeds of eventual decline are often sown; and it is also during the launch that a HPKI gets placed in a high trajectory. It is at this stage that traditions are created which, years later, become the source of vitality in a HPKI or of decay in mediocre ones. And the chief lessons that our analysis has to offer to those embarking upon creating new knowledge institution are essentially about how best to manage the launch of the new Institute.

IV. `Launching' an Institution of Excellence: Alternative Ways Forward.

Once a decision has been made to create a new Institute, the next step—which will have far reaching impact on the future of the Institute—is: how to go about establishing the Institute. From the Indian experience, there are three `launch models' to choose from: [a.] leave the job to a promising institution- builder who is often the progenitor of the idea; [b] build it as part of an operating organization; and [c] build it as an autonomous, self-perpetuating governing structure. Although there are differences of detail among institutions within each model, we believe that each of these represents a body of internally coherent launch practices. We briefly explore each of these.

a. Entrust the job to an Institution Builder.

Essentially, in this model, the launch of a new institution—complete with the task of choosing and adapting the six sets of best `launch practices'—is entrusted to an outstanding individual with high levels of entrepreneurial energy, a vision for the new institution of excellence and a well-rounded understanding of the needs of the society that the institution is to be built to serve. This model has been extensively used in creating some of the finest institutions that India has. [39] Many

[39] such as Indian Institute of Management at Ahmedabad, National Institute of Design (Ahmedabad), Physical Research Laboratory, Plasma Research Institute, Space Application Center, Center for Environment Education, Ahmedabad, Indian Space Research Organisation, Tata Institute of Fundamental Research, Tata Institute of Social Science, Bombay; Tata Memorial Hospital, Bombay, BARC,

promoters of institutions of excellence in India—especially, Tatas—believe that the best way of promoting new institutions is to build them around outstanding individuals with vision and passion to build. In essence, the model is: find a suitable man, back him through an eminent and supportive board, and leave it to him/her to build the way s/he finds appropriate.

The early history of each of these institutions is a story of passion and sagacity of their builders. TIFR, built by Homi Bhabha, is an outstanding example; it is also an outstanding example of the chancy manner in which the seeds of some of the finest institutions in India today were sown. As a young Indian mathematical physicist--who lectured at Cambridge and had already made a name by enunciating the celebrated Cascade Theory of Cosmic Ray Showers even before he was 30— Homi Bhabha came to India on a holiday in 1939 and got stuck as the second World War started. He took up a Tata fellowship to work at IISC, Bangalore where he began contemplating the role science can play in India's development. In August 1943, he wrote to J R D Tata about how `lack of proper conditions and intelligent financial support hamper the development of science in India'; in the same letter, he also shared with JRD Tata his dream to `build up schools comparable to those in other lands'. Tata wrote back soon: 'If you and/or some of your colleagues in the scientific world will put up concrete proposals backed by a sound case...Sir Dorab Tata Trust will respond.' Enclosing such a proposal, Bhabha wrote in his letter, `The scheme I am now submitting to you is but an embryo from which I hope to build up in the course of time a school of physics comparable with the best anywhere...[and] if Tatas would decide to support an Institute such as I propose...I am sure [it] will be supported soon from many directions and be of lasting benefit to India.' Tatas agreed readily and offered an initial grant of Rs 45000 which was topped up by the Government of Bombay Presidency with Rs 25000 and GOI with Rs 10,000. Thus began the great Tata Institute of Fundamental Research; and the rest is history. [40]

Indian Institute of Health Management Research, Jaipur, Enterpreneurship Development Institute, Ahmedabad, and several others.

[40] An excellent account of knowledge-institutions founded/supported by Sir Dorabji Tata Trust—including Tata Institute of Social Science, Tata Memorial Hospital and Tata Institute of Fundamental Research—can be found in Lala (1984) on which the present account is wholly based. Each is a story of an institution built around a visionary. Of particular interest is the Tata Institute of Fundamental Research and how an exquisite `launch' of that institution by Homi Bhabha explains its enduring excellence.

TIFR's initial launch was totally managed by Bhabha with able support from a Provisional Committee chaired by Dorab Tata Trust chairman Sir Sorab Saklatwala. Other members of the Committee included Dr John Matthai, who later became a cabinet minister, S N Moose, Director of Public Instruction, Bombay Presidency and Dr Bhabha. Later, the Institute got an independent Governing Council on which Dorab Tata Trust, GOI, GOM and the Atomic Energy Commission were represented. A few years letter, TIFR and Bhabha began getting support from Prime Minister Nehru; however, after the first year, it got the bulk of its funding from GOI thanks to Dr S S Bhatnagar who was the CSIR chief and Secretary to Ministry of Scientific Research. Thus was launched TIFR in 'Kenilworth', a bungalow on Peddar Road owned by Dr Bhabha' aunt.

Thus, even besides Bhabha, the caliber of other people who got involved was the highest one could find in the land. Sir Sorab, the Tata Trust chairman spared Dr Bhabha the time and energy in keeping accounts for the young institute; Dr John Matthai—one of India's best administrators--helped formulating administrative norms and management systems; JRD Tata was deeply involved in the founding and development of TIFR. When Bhabha was busy constructing TIFR's campus in

South Bombay, JRD spent three successive Sundays working over the design of the Institute's auditorium, now named after Bhabha.

Bhabha had a grand vision for TIFR; he once wrote: 'An institution for fundamental research should be open to all scientists of eminence, whatever the country to which they belong..' At the opening of the Institute, he wrote to Prime Minister Nehru: ," I have also had the idea that some day the Institute might render useful service to this country by carrying out research in the history of Indian science.. " R M Lala writes: 'Bhabha wanted to create in India something much more than a scientific institute. He wanted to establish a centre for research that would radiate to the rest of the country standards as high as any to be encountered anywhere.' Also, '[Bhabha] was very keen that the finest scientists should visit India and lecture at the TIFR and among those who came at his invitation were several Nobel Prize winners in Physics, including Professors Niels Bohr, W Pauli, P.A.M Dirac, P.M.S Blackett and Sir John Cockcroft.' (Lala 1984:99)

Over the early years, Dr Bhabha acquired and trained a hard core of scientific personnel. Amongst the first to be invited to join was Professor Kosambi, the well-known mathematician. In April 1944, Bhabha wrote to Dr S Chandrasekhar inviting him to join TIFR and 'to build in time an intellectual atmosphere approaching what we knew in places like Cambridge and Paris'. His appetite for collecting bright scientists and his capacity to build them up was so formidable that a few years later, he was able to transfer from TIFR a huge contingent of 46 scientists to the newly created Atomic Energy Establishment (of which he was the chairman and which later became BARC) including Dr Raja Ramanna, M G K Menon and A S Rao. Even then, TIFR had a good deal left; when BARC started the Atomic Energy Training School, a major part of teaching in the early years was carried our by the TIFR scientists.

TIFR grew faster than its premises; so Bhabha found 250,000 sq. feet in South Bombay belonging to the Ministry of Defense; Krishna Menon, the Defense Minister, declined to part with the land; but Nehru prevailed over him and Bhabha began constructing on it a magnificent structure. Bhabha was so intensely involved in the design, architecture and structure of the buildings that Helmuth Bartch, the architect later said, 'In the past I have always worked *for* my clients. This is the only time I have worked *with* a client'. According to Lala,

One has to read the story of Anand[41], of IIMA and of a family of world-class scientific institutions in Ahmedabad to understand

'What put (TIFR) apart was his close personal attention to every detail, be it the buildings, the art collection, or, most important, the scientific programme and its high standards--they all bore the unmistakable imprint of Homi Bhabha's personality and genius.'

[41] Like Bhabha, V Kurien too had chanced into Anand and built a string of great institutions, including IRMA. Like Bhabha, Kurien too wanted IRMA to symbolise and radiate excellence; so he became the self-appointed `Site Engineer' of the IRMA Project. Like all great institution builders, Dr Kurien chose his own symbolic acts to launch IRMA as an institution destined for greatness. He collected some of the most respected names in India's world of management and social science education—Ravi Matthai, Kamla Chaudhry, Vijay Vyas, Ramakrishnaiyya, C H Hanumantha Rao, A M Khushro and several others—in the first Board of IRMA. He and Kamla Chawdhry invited Andrew Towl, a highly regarded retired professor of case development from Harvard Business School to train IRMA faculty in writing and teaching cases. He wanted for IRMA an exquisite campus, designed and built with elegance; he exhorted IRMA to make her students think and act `big', and ensured that they had access to the best of facilities while in IRMA (`you can't produce Kings in a pigsty', he was fond of saying). He ensured that the string of early convocation speakers were none other than Prime Ministers and Presidents (who included Mrs Indira Gandhi, President Zail Singh, President Hidayatulla, Prime Minister Rajiv Gandhi and several others). He tried hard to get truly eminent individuals to be IRMA's early leaders; and in doing this, he used his considerable charm to great effect. For instance, soon after IRMA began work, he was trying to woo a reluctant but highly respected Mr R N Haldipur (a retired IAS officer) to be IRMA's first Director. Mr Haldipur kept dithering, uncertain about what to expect in a town like Anand; so Dr Kurien sent him an invitation to Pondichery (where Mr Haldipur, serving a term as the Governor, was preparing to retire) to attend IRMA's first convocation along with air tickets for himself and his wife. The Convocation—where Mrs Indira Gandhi spoke and 60,000 farmers attended to witness 40 rural managers getting their *Anga vastrams* from the Prime Minister—was so unlike any other convocation that anyone --including Mrs Gandhi had ever seen, and it made IRMA look so resplendent and pregnant with hope and

how extraordinarily similar are the characters and the roles played by outstanding institution builders like V Kurien, Ravi Matthai and Vikram Sarabhai to those of Dr Homi Bhabha. But the lesson from the experience of these institutions for founding-agents is not that: if you want to truly build an institution of excellence, the way to do it is find a suitable man to do it. The correct-but-not-very-helpful lesson is: if you run into a man with energy and vision with an idea to build an institution, back him up to the hilt in building the institution he wants to build rather than asking him to build an institution that you think is needed. It may be rare indeed that the `right' man will also be interested in the institution you want built.

[b] Knowledge Institution as part of an operating organization

The second `launch model' is offered by a large number of training and research institutions established by state/central governments exemplified by WALMI, Gujarat and NIAM, Jaipur. Some key features of the `launch' in this model are: [a] the idea for a new institute is seeded in the process of designing a large sectoral intervention through a collaboration between a government and an international (usually, multilateral) donor organisation; [b] the donor offers to fund the infrastructure and operating costs in the initial period after which the Institution would be expected to survive with budgetary support from the Government; [c] the `technical collaboration' agreement is between the donor and the government; as a result, the initiative for `launch' falls in the lap of the government department; [d] the Institution is started as a `Project' for creating the infrastructure; [e] a serving (or retired) senior officer from the department is deputed to be the Director; [f] the Secretary becomes the chairman of the Board (if the Institute is registered as an autonomous society) or of an Executive Committee; in either case, the Board or the EC either consist entirely of officers from government departments lower in rank than the secretary[42], or is heavily dominated by ex-officio members from government departments even if there are outside members; [g] the Institute acquires the department hierarchy which may co-exist with a separate cadre for academic positions; commonly, the professional staff comes from two sources; government officers on deputation and staff recruited from the open market; [g] the new institution takes up a programme of work which its Director and professional staff feel most comfortable with, which typically is training for departmental staff.

significance, that Mr Haldipur finally decided to come; and he helped IRMA through its important early *launch* years with his characteristic wisdom and empathy, so precious and badly needed by every young institution.

[42] Generally, almost all members of such Boards are ex-officio; as a result, they are always represented by their nominees who are even more junior and disinterested when compared to the Secretary. Take for example, WALMI, Gujarat: its Board chaired by Secretary, Water Resources Department has as its other members, Director, Agriculture, Financial Advisor (Min. of Water Resources), Secretary Planning, MD, Gujarat Land Development Corporation, Director, Education, Director Research and Director (WALMI) as member secretary to the Board. All members are ex-officio; and most are normally represented by their junior officers who serve as their nominees. Thus, a Research Associate attends Board meetings in place of Director, Research, GAU and a Deputy Secretary was nominated by Secretary Planning in recent meetings.

Around 7-10 years down the line, in the Indian experience, this model invariably produces institutions that share several features: [a] they tend to mirror the culture and work ethos of their parent department; [b] they tend to be insular and suffer from crippling incapacity to attract and retain professional talent from the market; [c] they seldom build a reputation for creative research, innovation or advancing the frontiers of knowledge, basic or applied; [d] their impact on their departments often remains limited *precisely* because they are so close and similar to them; [e] they rarely develop capacity for resource generation either through fee-based programmes or project grants from non-government sources; as a result, they become hopelessly dependent on budgetary support; and [f] the level and quality of budgetary support they receive depends upon whether they are under state or central government, and how important and strategic they are perceived among the top levels of administrative and political leadership.[43] While this is true of a majority of attempts to locate knowledge institutions within operating systems of governments, growing evidence suggests that the experience of NGO is no better at least in India.[44]

[43] Thus the IAS Academy at Mussourie, Police Academies, NDA, Pune, IGFRI, Dehradun—these are excellent institutions created in this model; but these get the best of everything; these get limitless resources; people who head them are the senior-most, and carefully picked officers of their respective cadres/services; the trainees they get are the cream of society; and they commonly have elite tradition to protect. In these terms, Water and Land Management Institutes, State Institutes of Rural Development, Jalsewa Training Institutes tend to be on the other extreme.

[44] A good example is the Research and Resource Centre (RRC) supported by Ford Foundation as an applied research and capacity building institution within PRADAN, an important Indian NGO with strong accent on professional input in voluntary action. With its reflective internal culture, PRADAN is amongst the few Indian NGOs which might have made a success of such a knowledge centre; yet, 10 years later, PRADAN's RRC remains an apology for a knowledge institution. DHAN Foundation, an ambitious off-shoot from PRADAN has once again tried locating a knowledge institution--the DHAN Academy-- as part of an operating organisation; only time will tell if and how far it succeeds.

[c] Knowledge Institution as an Autonomous Governing Structure

Between these two extremes, we have a range of `launch' models that use many common practices. The common aspect in all these is that they eschew governmental control although many of them seek and build functional linkages with the government. Four sub-models seem interesting: [a] ICSSR Institutions like the IDS, Jaipur and GIDR, Ahmedabad; [b] GOI's attempt to create a sectoral management institute such as the IIFM; [c] Bankers' Institute of Rural Development, Lucknow; and [d] Institute of Rural Management, Anand.

The core elements of this model are: [a] the institution has the legal status as a Society or a Public Trust or both; [b] it is governed by an autonomous, interested, respected, self-perpetuating Board typically of 11-20 members where all or a majority of members serve in their individual capacity; the only ex-officio member is the Director who often doubles up as the Secretary to the Board; in some cases, a senior member of the staff (typically, the Administrative Officer serves as a non-member secretary to the Board); government officers holding positions from which they can contribute are often invited by name as in the IRMA board; in some others, some Government officials also serve ex-officio but they are one or two; [c] the Bye

laws of institutions clearly specify terms of different members, rules for renomination /reappointment and specific interests/stake-holder groups to be represented; they also specify the chairman's role and rules for succession; [d] the institution is headed by a Director/Chief Executive who is identified through an open process of search carried out by the Board or a Search Committee appointed by the Board and appointed because of his suitability, his qualities and qualifications for the post; the directorship may be for a term or a tenure position; [e] the Institution appoints its professional and support staff through an open selection process according to the criteria and rules formulated by the Board; [f] typically, the Institution creates its infrastructure through a capital grant whose size depends upon the eminence of the Board and the Director, whether the grant comes from a Government or a donor, and how exciting and appealing is the `concept' of the institution; [g] the Institution obtains resources through budgetary support from the government, project funding from government or other clients, fees charged for training and education programmes, and for consultancy services, from interest on corpus/endowments, or from all these sources; and [h] the quality of contribution these institutions make depends largely on the mix of operative practices they adopt, as we have outlined in section V.

Around these core launch features, there are numerous variations, each immensely interesting. Indian Institute of Forest Management at Bhopal, for example, represents a governmental effort to create an IIMA-like institution for the forestry sector which, in some ways, went awry. It was established by GOI's Ministry of Environment and Forests and the National Waste Lands Development Board as a truly autonomous institute under the influence of Kamla Chawdhry, then the chairperson of NWDB, who was also the chairman of IIFM's first Board.[45] As the first Chairman of the Board, she tried to `launch' IIFM as an institution that would have a broader appeal and ownership among NGOs, industry, farmers, environmentalists and general public rather than being a captive institution of the Forest Department. For its first year or two, IIMA served as the womb to develop the embryo of the new Institution (including its first Director-designate), and give it its `genes' as it were. Chawdhry got for the Institute a board that did have a broad representation, a faculty that had a mix of

[45] The original IIFM Board had several senior officers from the Indian Forest Service; however, Chawdhry also ensured that it had several outsiders with experience in environment, natural resources, and public systems management. The Swedish SIDA devised a funding programme that included infrastructure, faculty development, student fellowship and a generous corpus. The first Director-designate was an excellent find--a forest service officer with social science and management background—finally could not join. They worked hard to search for a professional academic as a Director and recruited a dozen strong faculty in various fields from the market. At one stage, the Institute seemed to have a `right' mix of foresters and other professionals on the faculty; the dynamic was difficult but it was somehow managed by its first director, a retired senior forest officer who made a good patriarch for the young faculty. Around that time, Chawdhry resigned as chairman of NWDB and, with that, also lost her chairmanship of IIFM which now went to Secretary, MoEF, GoI. To be fair to them, successive secretaries did try hard to get professional academic as a Director; but by then, the candidates who seemed equal to the job were scared away; for some time, the Directorship went to senior IFS officers; now it has become an `operative leadership tradition'. And it now seems extremely unlikely that IIFM will *search* for the best man available to be its Director, from wherever.

foresters, social scientists and management specialists; she launched a Post-graduate Programme in forest Management that reflected her multi-disciplinary concept of the Institute and tried hard to attract a professional academic to be its first director. However, she had to leave before the `launch' of IIFM was complete; as a result, IIFM has emerged as a kind of an amalgam of NIAM and IIMA.

IRMA and BIRD represent another variant. Just as IIFM was promoted by the National Wastelands Development Board as a management institute for the environment sector, both these too were promoted by strategic organisations—National Dairy Development Board (NDDB) and National Bank for Agriculture and Rural Development—to play a significant role in their sectors, *viz.,* farmer co-operatives and rural credit respectively. Both NDDB as well as NABARD followed the core launch practices in this model by the book; they created distinguished Boards of Governors; they gave the institutes outstanding infrastructure; they also gave them corpuses so that the Institutes could be autonomous. The chairmen of founding organisations became the chairman of the Institute Boards, too. But IRMA turned out to be one up on IIFM as well as BIRD; NDDB/IRMA chairman insisted that NDDB control/influence over IRMA should operate only at the Board level; he ensured that IRMA recruited her Director as well as faculty from the open market, and never let an NDDB officer to be posted/deputed to IRMA. NABARD filled the BIRD faculty positions with NABARD staffers on deputation; except for a brief spell, the Director was also provided by NABARD from its senior/retired officers. Secondly, amongst the first activities that IRMA started was a post-graduate programme which became her flag-ship programme; the programme ensured a steady supply of bright young students on the IRMA campus that shaped a vibrant academic environment. BIRD kept doing short term in-service training programmes for officers of Regional Rural Banks. However, it had no avenue for infusing fresh-blood either in its faculty or in its trainee-population. Because of its norm of recruiting faculty (usually with a PhD or a track record of published work) from the open market, IRMA also developed a tradition of research which BIRD found difficult to develop, much as its chairman dreamt of it. Neither Institute—nor, IIFM for that matter, however, can claim to have had a major success in producing strategic change in their respective sectors.

The ICSSR Institutes—of which there are over 20 in the country--are a class apart from IRMA/BIRD/IIFM genre. These too used the core launch practices in this model; they derive core funding from the ICSSR and state governments, and depend on projects for the rest of their funding. Many were founded by outstanding and highly respected social scientists--VKRV Rao founded the Institute of Economic Growth in Delhi and Institute of Social and Economic Change at Bangalore; K N Raj founded the Center for Development Studies at Trivanrdum; Malcom Adiseshaiya founded the Madras Institute of Development Studies, Dandekar led the Gokhale Institute at Pune for a long time, and D.T. Lakdawala founded Sardar Patel Institute of Economic and Social Research and played an instrumental role in transforming the Gujarat Institute of Area Planning started by Vimal Shah into Gujarat Institute of Development Research. Most of the ICSSR Institutions were afflicted by `leader-centric syndrome'; during a

long spell when they were managed by outstanding senior social scientists, they kept collecting young faculty and building them up. Many of these however paid little attention during the `launch process' to creating norms, traditions and systems that would help these institutions to sustain or even enhance their vitality and impacts after them. Moreover, after them, many of these institutes developed an invidious work culture around unrealistic and false notions of `academic freedom'. Thoughtless recruitment-spree at clerical and ministerial levels –often during the `launch process' itself--left many an ICSSR institution lugging a huge deadweight of undisciplined and unproductive support staff a few years later. Now that many of these Institutes are 25-30 years old, a generation of aging faculty dominate their workplaces; with growing fund-crunch, new faculty are difficult to induct. What many of these places need most—but their leaders seem unable to catalyse—is a process of institutional renewal with new systems and a new work culture so that they pull themselves up by the boot-straps and start running.

Important implication we need to draw from the ICSSR family of institutions is that even with best launch practices, there is still plenty of room for building institutions that begin at some stage to stagnate or even decline. And the lesson is that best scientists/academics often tend to be soft and short-sighted leaders[46]; and that they might evolve far-sighted launch as well as operative practices if only they had opportunities and spaces to learn and think about how great institutions get built. Another implication is that many institution leaders in the ICSSR family can dramatically improve their performance just by working away on their *operative practices* and move towards `world-standard' . Unlike these, a vast corpus of virtually defunct institutions like many WALMIs and SIRDs that developing countries like India have will, it seems, derive very limited lasting benefit from working only on their *operating practices.* A good leader can—and for short periods does—`turn around' such institutions. The problem is that turn around is not a suitable idiom for defunct or still-born knowledge institutions whose problem is stagnation and lack of creative energy; there are aspects of their design—created by faulty *launch*—that ceaselessly work away as if to keep impelling these institutions to stagnation and mediocrity. Often, there is little by way of `institutionality' that can be salvaged from such junk; where there is, a salvage requires complete *re-launch*: wipe the slate clean—or as clean as it can get, and now try writing on it all over again, but with greater wisdom and suavity.

Thank you……

[46] Kurien often used to tell me, `To build classy institutions, besides many other things, one also has to be a bit of a S.O.B. True, you build institutions for people; but you can not leave institutions for them to hijack them for their narrow purposes.'

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List of Abbreviations

BARC	Bhabha Atomic Research Center, Trombay
BIRD	Bankers' Institute of Rural Development, Lucknow
BOT	Build-Operate-Transfer
CSE	Center for Science and Environment, New Delhi
CEDT	Center for Electronics Design Technology, Bangalore
CEE	Center for Environment Education, Ahmedabad
CIDA	Canadian International Development Agency
CADA	Command Area Development Authority
CAZRI	Central Arid Zone Research Institute, Jodhpur
DSC	Development Support Center, Ahmedabad
DG	Director General
EDI	Entrepreneurship Development Institute, Ahmedabad
FCRA	Foreign Contribution Regulation Act
GO	Government Organisation
GOG	Government of Gujarat
GOI	Government of India
GOR	Government of Rajasthan
GLI	Gandhi Labour Institute, Ahmedabad
GIDR	Gujarat Institute of Development Research, Ahmedabad
GMI	Groundwater Management Institute
GAU	Gujarat Agriculture University, Anand
HPKI	high-Performing-Knowledge-Institutions
HBS	Harvard Business School
IMTI	irrigation Management Training Institute, Kota
IEC	Information, Education, Communication Campaign

IDS	Institute of Development Studies
IIMA	Indian Institute of Management, Ahmedabad
IRMA	Institute of Rural Management, Anand
ICSSR	Indian Council of Social Science Research
IIT	Indian Institute of Technology
IIHMR	Indian Institute for Health Management Research, Jaipur
IISC	Indian Institute of Science, Bangalore
IIFM	Indian Institute of Forest Management, Bhopal
IGFRI	Indira Gandhi Forest Research Institute, Dehradun
IAS	Indian Administrative Service
LBSNAA	Lal Bahadur Shastri National Academy of Administration, Mussourie
MOE&F	Ministry of Environment and Forest, New Delhi
MOA	Memorandum of Association
NDA	National Defense Academy, Pune
NGO	Non Government Organisation
NID	National Institute of Design, Ahmedabad
NIRD	National Institute of Rural Development, Hyderabad
NIAM	National Institute of Agricultural Marketing, Jaipur
NWDB	National Wastelands Development Board, New Delhi
NDDB	National Dairy Development, Board, Anand
NABARD	National Bank for Agriculture and Rural development, Bombay
ODI	Overseas Development Institute, London
PHED	Public Health Engineering Department
PRIA	Participatory Research in Asia
PRL	Physical Research Laboratory, Ahmedabad
RGWD	Rajasthan Ground Water Department, Jodhpur
ROKI	Rest of the Knowledge Institutions
RTI or RTIG	Rural Technology Institute, Gandhinagar
RIPA	Rajasthan Institute of Public Administration, Jaipur
RWRMI	Rajasthan Water Resources Management Institute
SIRD	State Institute of Rural Development
SEWA	Self Employed Women's' Association
SPISR	Sardar Patel Institute of Social and Economic Research, Ahmedabad
SIDA	Swedish International Development Agency
S.O.B	Son of a Bitch
TERI	Tata Energy Research Institute, New Delhi
TIFR	Tata Institute of Fundamental Research, Bombay
USAID	United States Agency for International Development
VC	Vice Chancellor
WRCP	Water Resources Consolidation Project
WWF	World Wildlife Fund
WB	World Bank
WUA	Water User Association

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For copy of any report please write to us :

Dr. S.S. Kalamkar

Director and Professor
Agro-Economic Research Centre
For the states of Gujarat and Rajasthan
(Sponsored by Ministry of Agriculture, Govt. of India)
H.M. Patel Institute of Rural Development,
Opp. Nanadalaya Temple, Post Box No. 24,
Sardar Patel University, Vallabh Vidyanagar 388120
Dist. Anand, Gujarat, India

Ph. No. +91-2692-230106, 230799; Fax- +91-2692-233106
Email: director.aerc@gmail.com; directoraercgujarat@gmail.com

Website: www.aercspu.ac.in
