

The University and the Development Agenda

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This article argues that a knowledge and practice deficit, and the inability of higher education institutions to professionalise development are key lacunae which need to be overcome. However, this will need the university to reinvent itself and for elite institutions to develop a more accessible notion of knowledge and rigour.

Some of the study was done while the author was visiting the Zakir Hussain Centre for Higher Education, Jawaharlal Nehru University, New Delhi.

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The people of India must add a hot summer, a deficient monsoon, and a bone-chilling winter to the usual list of hardships in making ends meet, along with a host of macroeconomic factors such as poor employment opportunities, poor returns on education, and underperforming developmental services such as *bijli* (electricity), *sadak* (roads), *pani* (water), and health. Government after government has focused on the provisioning of such services through various missions and programmes, the latest being the Swachh Bharat Abhiyan. However, the outcomes of many of these missions remain poor.

Take for example, cooking energy and drinking water. As per the 66th round of the National Sample Survey Office (NSSO) survey, three in four rural households still use firewood and chips as their primary source of cooking energy, and they burn this in smoky *chulhas* (stoves) of doubtful

efficiency. Moreover, this number has not changed in the preceding 25 years. For drinking water (see NSSO's 69th round), about one in seven rural households and one in 10 urban households do not have year-round access to drinking water. These numbers are worse than what NSSO's earlier round found.

Such living conditions have a serious consequence on livelihoods, migration, and health. The crucial point is that these numbers have not budged despite, for example, spending over Rs 10,000 crore every year for the last five years, on drinking water alone. Despite flagship programmes such as the National Rural Drinking Water Programme (NRDWP), and the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the involvement of experts of the World Bank, and an activist member of the Planning Commission, the situation remains bleak.

The Question of Knowledge

It is customary to blame these poor outcomes on problems of governance, corruption, and social or cultural backwardness. While this may be true, this article wishes to point to a knowledge and practice deficit, a key problem area and suggests a route to overcome this. I will use,

as a running example, rural drinking water and Maharashtra, where shockingly, one in four rural households are under stress.

A typical drinking water solution consists of a piped water supply scheme with either a groundwater or a surface water source, and serves about 500 people of a habitation.¹ The design of a successful and durable scheme requires the careful execution of several protocols, such as estimating the ability of the community to pay and manage, measure source strength, design key assets, and hand over the same to gram panchayat. Ideally, each of these protocols must be periodically assessed and adapted to changing circumstances. Moreover, the performance at the village level must be collated and analysed at the taluka and district levels. Recurring or difficult problems should set the research agenda for the sector within state or national institutions.

Sadly, none of this holds true. The design protocols have not changed in decades. Groundwater, the basis of most drinking water schemes, is poorly understood and failing, and yet very few new practices have emerged. Regional knowledge institutions are largely unaware of these processes and do not participate in district or regional planning or evaluations. The connection with research institutions such as the Indian Institutes of Technology (IITs), Jawaharlal Nehru University (JNU), Indian Institute of Science or the newly formed Indian Institutes of Science, Education and Research (IISERS), are largely non-existent, and knowledge formation in key sectors remains stunted.

Moreover, most departments of the government are trapped in a vicious cycle of obsolete knowledge, low productivity, poor outcomes, and overwhelming workloads. A taluka of about 200 habitations must be served by two-three engineers and a quarter-time geologist. A district collector must sit on a hundred committees. To compound this is a discourse of “minimum government, maximum governance”, i.e., a pressure to reduce the size of an already small public sector even further. In other words, even if every official were honest, punctual, and did what he/she was supposed to do, a significant part of the problem would remain.

The solution to this is to recognise governance as a collection of social and

technical protocols, or algorithms, embedded in a framework of political and administrative accountability. For correct and desirable outcomes, the protocols and framework must adapt to changing scenarios, and the agents themselves must be retrained in new methods of design, implementation, and assessments. Much of the knowledge should be embedded in empirical systems of “good practices” within various departments, and enriched by key collaborations with knowledge institutions. New knowledge demands should create new professions and new technological innovations, and a clutch of new companies that deliver value.

The University

So how is this new knowledge and practice to emerge, and who is to train the development professional? Historically, the university, i.e., an institution of higher education and research, has been a key site for knowledge formation within society. Europe proudly (and rightly) claims the modern university as its primary contribution to civilisation. With other societies too, such as the United States (US), Japan, Korea, more recently, China, the university has been an important intellectual resource in their path to a good life for their people. Moreover, in some societies, it is the backbone of an independent and vibrant civil society which provides a variety of role models for its young people. It also moderates the conduct of the state and the market, thereby ensuring better outcomes for its people. And so must it be for India.

Closer home, the Indian university now functions as two disjoint sets of institutions, viz., the elite or global-aspirational, and the regional institutions. The elite universities, which admit 2%-3% of the total student population, aim to be counted as members of the global knowledge elite. This overriding criterion defines their academic and research programmes. On the other hand, many of the regional and local institutions at best satisfy a training role of preparing a vernacular body of students for industrial profiles which have long disappeared. Increasingly, through accreditation and other quality-improvement programmes, these regional institutions who teach the bottom 97%, follow curricula and a research agenda that is largely

influenced by elite institutions. Thus, as a result, there is neither an indigenous tradition nor an empirical basis, such as a needs analysis, for the curricula followed by either the elite or the regional university. Moreover, there is little systematic research or practical training in important developmental areas such as groundwater, cooking energy or sanitation, or socio-economic areas such as district-level planning, panchayati raj, or the cooperative sector.

The second structural feature of Indian higher education is the competitive exam, a “fair” device used by elite universities to reject 97% of exam-takers. Perhaps unknown to them, it may be this, rather than their training, which connects students to high-paid global service sector jobs and in turn, determines the elite university.² Unfortunately, the competitive exam also serves to define and measure the outcome of school or college education. Thus, a student’s learning of a subtle, cultural, plural, and practical skill such as science is tested by a time-bound, objective, multiple-choice exam in which most students must fall in their own esteem.

These ingredients of “elitisation” leading to poor relevance, the absence of the regional or the vernacular, and the aspirational dysfunction caused by competitive exams, constitute the current crisis in higher education. Whence, the current structure of the university, the public sector and state agencies together pose a great challenge to both the generation of suitable knowledge and its absorption by development agencies.

The Way Out

The way out is for the elite university to recognise that the development agenda requires an intellectual rigour and a trans-disciplinary approach that it does not have, and which is a hallmark of most elite universities of the world. It must devote a part of its energy to (i) legitimise the problems of development and bring rigour to them, and (ii) prepare an inclusive academic framework for regional colleges to participate, and the community to access it as a resource.

The first step would be to develop a sequence of case studies which understand local situations, work with local stakeholders, and to develop a framework for

reporting, analysis and solutions. The case-study is a fairly nuanced device and has been used by both management schools and also by philosophers of science. The eminent philosopher, Karl Popper (1957), calls this “piecemeal social engineering,” and uses it to illustrate the construction of rigour. For us, these could be, a failed water supply scheme, an evaluation of a regional watershed programme, design and deployment of solar-power systems, mathematical models for the local chulha or even a socio-economic analysis of public transport provisioning within a taluka. These case studies will help students, faculty members, and university administrators to appreciate the development problem in its full social, cultural, and technical context. It will also develop creative inter-disciplinary skills, and the fieldwork needed for effective solutions.

A thematic collection of such case studies, e.g. in drinking water, and executed by a team of researchers and students should be the basis of interacting with communities, district administrations, and elected bodies. This would develop the sector and bring in new techniques of evaluation, design, coordination, and innovation. For example, in drinking water, it could bring in the use of geographic information system (GIS), optimal design, better tariff mechanisms, regional planning between groundwater and surface water, and cheaper meters and survey equipment. This will eventually lead to the absorption of new practices, new professions, and also pave the way for new research.

It is important that the mechanism of case studies is woven into the academic structure so that over time, these lend rigour to the subject enabling the larger academic community to participate, and meaningful research and practice to emerge. This brings us to the second step of abstracting the above experience into an elective curriculum which articulates the practical structure of society and situates the subject of development. A perspective course, a few key case studies, and a few sectoral courses should constitute a development minor, i.e., an elective sequence of courses. Such a minor programme will serve as the seed around which a discourse of science, society, and culture may emerge. It should also

prepare the student for an exciting future within the development sector and enable the fresh graduate to explore creative and gainful opportunities within it.

The third step would be to extend this framework to regional institutions and to develop a regional basis for applied research. A structured collaboration will allow elite institutions to develop research in areas which need long-term engagements, such as regional groundwater, and to deepen and broaden the conduct of higher education. This should also be the time for the launch of graduate professional and research programmes in development. These graduates would serve as development professionals, i.e., professionals who are trained to work in typical situations which arise in the development sector, and deliver value. These may be positions in the public and private sector, as coordinators of various programmes, in district planning bodies, as consultants and in think tanks.

The role for the state and its agencies is clear. It must be a willing partner with the university in the programme of professionalising development. It must be willing to create new forms of engagements, to try out new designs, to share data and to allow itself to be evaluated. And yet, it must also demand relevance and actionability from the university. It should also find funding for topical studies through its research and innovation budget or through funds earmarked for evaluation and assessment. Besides supporting topical research, it should also explore the actual exchange of staff and students. Such avenues are already open within universities which routinely hold training programmes. However, for students, internships with district collectors and at programme offices, and for fresh graduates, one-year fellowships at various agencies on specific objectives would be very attractive. It would strengthen the engagement between the university and state agencies and eventually pave the way for lateral entry of suitably trained professionals into governance positions.

The suggested sequence is not as unrealistic as it may sound. Many institutions already have academic or research initiatives which have similar objectives. Indeed, the recipe itself is based on the 30-year experience of CTARA (www.

ctara.iitb.ac.in) at IIT Bombay in enabling engineers to work on rural problems.

Finally

I could have used cooking energy or the small and medium enterprise sector for a similar analysis. This too would have yielded the same conclusion that we lack many socio-economic and technological protocols, and that these must come about by a more intimate relationship between the university, the state, and private enterprise.

Thus, the development agenda is really about an indigenous and robust definition of rigour in identifying, analysing, and solving problems, as well as identifying the role of the university as its custodian. It is also clear that the elite university must make the first move, as the regional university has very little legitimacy. It must set out and develop this sound and yet inclusive rigour for concrete problems so that these get the wider participation and attention that they need. In the long run, elite institutions need to grapple with their vision and root it not only within the global knowledge order, but also within the inter-disciplinary and “practical” problem of forging a culture for modern India. Second, they must prepare for a civil society role for themselves and their mofussil brethren, for otherwise we will be a society without the diversity and plurality of role models that we sorely need.

NOTES

- 1 See Prasad, Mishra and Sohoni (2014) for a detailed account of rural drinking water, its processes and allied issues.
- 2 This global diversion of graduates has always been a problem. Three decades ago, it was brain drain, i.e., fresh graduates leaving the country to work in the West, see Sukhatme and Mahadevan (1988). More recently, due to globalisation of jobs, it is now the global service sector which absorbs a large fraction of elite graduates, see Ananth (2011). Also see Kathuria and Sohoni (2014) for a related analysis.

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