

Reforming India's State Agricultural Universities

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SYNOPSIS

A major, systemwide reform of India's state agricultural universities (SAUs) aimed to modernize administration and management, update curricula and pedagogical approaches, upgrade teaching materials and laboratories, set new norms and standards for higher agricultural education, and improve human resource management in state line departments working closely with the agricultural universities. The process, initiated with four universities, was viewed as a ten-year effort but confined to a project of six years (1995–2001). The project improved the quality and relevance of India's SAUs by establishing an Accreditation Board, demand-oriented curriculum reforms, and complementary investments in staff training and educational infrastructure. The quality and diversity of student intake and the quality of faculty improved. In hindsight, however, it is clear that the process could have been introduced more slowly, with fewer objectives and a longer time frame to institutionalize the reforms. The capacity, readiness, and commitment of project actors could have been better assessed. The project might have done better to focus on higher education alone, reserving human resource management in line agencies for a separate project. Donor coordination should have been emphasized to prevent universities from obtaining funds that made it possible to delay reforms.

CONTEXT

By working with a small number of universities, a project sought to create a compelling demonstration of the potential benefits of systemwide reform in India's state agricultural universities (SAUs). As state institutions, SAUs receive funding from their respective states but also from central government and other sources. At the national level, the agricultural university system is coordinated by the Indian Council of Agricultural Research (ICAR), which is also a

source of research funding for the universities. A long-term goal of the reforms was to establish an Agricultural Education Council with statutory power to set norms and standards in agricultural education. For more on ICAR and India, see also module 1, TN 1; and module 4, IAP 2.

In the 1960s and 1970s, the SAU system was strengthened and expanded under a large USAID project (Busch 1988). In the 1990s, concerned about declining standards in the system, ICAR approached the World Bank about the need to reestablish SAUs as centers of high-quality agricultural education. The resulting project concentrated initially on four SAUs.

PROJECT OBJECTIVES AND DESCRIPTION

The five-year project was the first phase in a long-term program to improve agricultural HRD. Estimated project cost at appraisal was US\$74.2 million (World Bank US\$37.1; India US\$37.1). The project had four components: (1) strengthening ICAR; (2) university programs; (3) in-service HRD and HRM; and (4) manpower needs assessment.

Through these components, the project initiated several broad reforms:

- It assisted India's drive to modernize its agricultural sector by promoting changes in the way the center and states developed and employed human resources.
- It supported these changes with policy and institutional reforms.
- It began related processes of (1) improving the quality and relevance of higher agricultural education and in-service training programs and (2) strengthening the capacity of participating states to develop and manage agricultural human resources.

To foster academic improvement, the project strengthened capability within ICAR to establish norms and

standards in agricultural education and monitor compliance with these standards. While the proposed Agricultural Education Council was being established, ICAR's Education Division was strengthened, and the Norms and Accreditation Committee was restructured.

The project encompassed four subprojects from three participating states—one each from Haryana and Andhra Pradesh and two from Tamil Nadu—selected as good candidates for demonstrating the effects of reforms to other states. The subprojects sought to reform the curriculum and syllabus, improve faculty quality, revitalize teaching methods, organize faculty exchanges within India and with foreign universities, modernize university administration and management systems, upgrade infrastructure (teaching laboratory equipment, computer systems, communications, farms, libraries, and hostels), and establish placement centers and programs for student attachments to agroindustries. The project also promoted initiatives to involve university clientele more in university management and programs and improve education-related financial management.

To upgrade human resource management, at the state level the project supported:

- ***In-service HRD and HRM programs in 14 line departments that worked closely with SAUs.*** This support included training focused on job-oriented needs; systematic training needs assessments; training of trainers; evaluation of training effectiveness; better instructional facilities; and improved management of state agricultural employees.
- ***Manpower needs assessment,*** involving the establishment of broad-based Manpower Advisory Councils to sponsor rigorous studies of labor-market requirements and trends (that is, to begin developing labor-market intelligence) within each state. Data from the studies were expected to provide state authorities and university officials with technically sound information for crafting public policy, academic programs, budgets, and adjustments to university intake numbers.

INNOVATIVE ELEMENTS

In the context of India's SAU system at the time, the project delivered some innovative interventions.

It raised academic and administrative standards in the SAUs through updated curricula, improved pedagogy and teaching/learning materials, an emphasis on practical exposure for students, and accreditation of academic programs.

It upgraded the relevance and quality of in-service training, increased client involvement in identifying training needs, modernized training facilities, and enhanced staff knowledge and skills.

It emphasized the management of human resources in line departments to ensure that staff knowledge and skills were of the highest quality and that human resources were employed effectively.

It initiated the reform process with four universities and used the experience to scale up reforms to other universities in the SAU system.

IMPACT

By and large, the project achieved its development objectives, although the Project Completion Report (June 2002) identified some design flaws and less-than-satisfactory outcomes.

The quality and relevance of higher agricultural education was improved by establishing an Accreditation Board, demand-oriented curriculum reforms, and complementary investments in staff training and educational infrastructure.

A participatory system of institutional accreditation was developed, and ICAR was implementing it throughout the SAU system. Academic norms for all undergraduate and postgraduate programs were revised and implemented.

Education programs were more relevant. Curricula were updated for 11 undergraduate and 32 postgraduate programs. Courses were introduced in new areas such as biotechnology, computer applications, agribusiness management, and sustainable agriculture. Coursework was broadened to include skills-oriented, hands-on training programs developed through wide consultation with stakeholders.

These changes were reflected in new and improved teaching materials (laboratory manuals, course modules, textbooks, and so forth) and methods, along with substantial investments to train research and teaching faculty and upgrade classrooms, laboratories, libraries, and IT facilities. These efforts improved the quality and relevance of the education programs and the teaching/learning environment.

In-service training improved in quality and relevance through the establishment of needs-based training programs, greater client involvement (farmers, agroindustry, input suppliers, and others), modernized training facilities, and investments in staff training. Improved training programs and the adoption of more effective practices to disseminate agricultural technology appear to have improved extension performance.

The capacity of participating states to develop and manage agricultural human resources was enhanced by the creation of skills, institutional capacity, and infrastructure. These new resources enabled line departments to assess their HRD needs, formulate and implement human resource management plans, provide in-service training, and liaise with other relevant institutions.

Additional positive results

Policy changes improved the quality and diversity of student intake through a nationwide testing system and the introduction of national talent scholarships and research fellowships. A state-level Common Entrance Test was in place, and examinations were revitalized through a system of internal and external assessors. Aside from the training mentioned previously, a National Eligibility Test helped to improve the quality of faculty.

To enforce national norms and standards in agricultural education, ICAR set up a monitoring unit. A system of rewards and incentives was put in place to speed the adoption of norms and encourage self-improvement in educational standards in SAUs and among students. A manual for accreditation was issued. By the end of the project, 32 of 35 colleges in the project SAUs had been accredited by the newly established Accreditation Board. All project SAUs were accredited, and the process was continuing with other SAUs throughout the country.

University governance had improved with the establishment of broad-based Advisory Groups and an expansion of the University Board of Management to include representation from the private sector. Financial powers were delegated to deans and heads of departments, among other financial reforms. Students' records and evaluations of teachers were digitized.

Although Educational Technology Development Cells and the Student Counseling Centers were set up, by the time the project ended, their impact on graduate employment had not been evaluated.

Effects on institutional development

The new accreditation system enabled SAUs to analyze their strengths and weaknesses, develop strategic plans for academic excellence, and formulate action plans to improve the quality of agricultural education by involving all stakeholders. Administrative, financial, and governance changes, especially closer links with clients in the agricultural sector, are likely to continue and spread to other universities

through positive demonstration effects. Line departments also experienced changes in their attitude to, and organization of, personnel and training matters.

Sustainability

When the project ended, changes in institutions and procedures, including managerial and administrative changes, were partly internalized, and the relevant stakeholders favored continuing the reform program (for example, by addressing governance reform and individual performance incentives). Staff from SAUs and line departments reported a greater sense of achievement and job satisfaction. Overall, the sustainability of the project was rated as "likely." The likelihood of a follow-up project provided incentives to continue project activities. Yet as the next section will show, these expectations were not fulfilled.

LESSONS LEARNED

The process could have been introduced more slowly, with fewer objectives. The capacity, readiness, and commitment of project actors could have been better assessed. The project might have done better to focus on higher education alone, reserving human resource management in line agencies for a separate project. Donor coordination should have been emphasized to prevent universities from obtaining funds that made it possible to delay reforms.

Some lessons are particular to the project:

In hindsight, the project overestimated the capacity and readiness for reform in the government and implementing agencies. Many assurances obtained when the project was negotiated did not materialize within the agreed timeframe. Implementing agencies' capacity to identify priorities and needs and develop workable annual plans for procurement, financial management, and training were overestimated.

The project was too complex. It should not have attempted to initiate and manage change in institutions (universities and line departments) with widely differing organizational structures, cultures, and objectives.

The project did not give enough attention to monitoring and evaluation. It used an undifferentiated list of indicators that were not prioritized, quantifiable, or possible to substantiate. No benchmarks were in place for progress to be assessed more objectively. The project lacked a framework to link the project's various activities clearly with its objectives.

The manpower needs assessment was not satisfactory. Data were delivered late, were not used, and the substance

and style of teaching did not change in any substantial way, even though trainers were using more instructional aids.

Other lessons arising from the project have broader application:

As emphasized in the module overview, the case for reform needs to come from within the system—in this instance, from the coordinating body for higher agricultural education. The weak impetus for reform underlies the other lessons presented here.

Reform takes time. Although this project recorded many successes, the difficult issues were not resolved. A second phase of the project, which would have institutionalized the reforms, was never funded.

The number of universities in the project was limited to four to achieve a convincing demonstration effect. This decision, in a system as large as India's, was perhaps good—but it remains an open question.

Human resource management—intended to make training more meaningful in the state line departments that worked closely with the SAUs—proved more difficult to manage than expected, because the universities and line departments were administratively separate. (As noted, it may have been preferable to focus on line agencies in a separate project.)

Unless a project can tap into or build durable constituencies for reform, the “champions for change” will

turn their attention elsewhere, reforms in governance will not continue, and the initiatives started by the project will not be sustained. Creating or strengthening these constituencies requires delegation, decentralization, and empowerment of different functionaries as well as the institutionalization of key reforms, such as changes in university statutes that give a genuine voice to the private sector or “teeth” to student evaluations. Projects need to be designed in ways that will initiate and elicit such governance and institutional reforms, perhaps by phasing in project investments that are explicitly linked to realizing agreed elements of reform.

Although the project devoted attention to building up management and implementation capacity at various levels, in retrospect the ability of the implementing agencies to manage procurement, financial management, and selection and placement of staff for overseas training was overestimated. It is critical to make a thorough assessment of capacity and readiness for reform before designing the project in detail.

Finally, when supporting university reform in entities that focus on teaching, research, and extension, it is important for donor organizations to ensure that they do not offer those entities competing funds that would allow administrators or faculty to ignore the more difficult elements of the reform agenda and delay or derail the process.