Report on Curriculum Development on Innovation Management at XIM B
for
Centre for Research on Innovation and Science Policy

Managing the 'Crop Post Harvest Programme' (CPHP) of DFID
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Shambu Prasad
shambu@ximb.ac.in

The contract with CRISP was to facilitate the process of floating a course on innovation systems using existing material of the CPHP network of researchers and explore the synergies of developing a full length course that would be first piloted in XIM and depending on uptake and interest in other areas be tried out in other places. The key question to be addressed was what would it mean to float a course on innovation management in South Asia, India in particular and how could the concept of innovation systems be introduced into the curriculum?

This brief report is about the activities that went into preparation of the course curriculum and a few observations that would be of interest for future efforts.

Innovation Management and Innovation Systems

Business schools in India have the advantage of greater flexibility of course design and floating of newer courses, which might take several years in more formal university settings. XIM was chosen for the pilot for the following reasons. The coordinator of the project had when he was Director CRISP already floated an 'immersion course' on 'innovation management' for the rural management students in September of 2004 and some relationship had been established. XIM has the advantage of having a regular management programme and a rural management programme with the latter being more relevant for a innovation for development perspective than many other institutes of management. XIM has at least one faculty interested independently in 'innovation networks' which is now offered as a theme for doctoral studies and a few more who are interested in innovation as a subject. One of the topics listed for work in a course on business policy was 'learning and innovation'. The coordinator of the pilot, Shambu Prasad, is currently a faculty at XIM and knows the CPHP work and is in a better position to pilot the initiative. Finally, in most academic settings bringing about change is about setting a precedent and this is a good opportunity to set one.

There was a review of courses that already exist in some management schools with a view to look at how innovation is being looked at in some of the management schools in India. XIM had floated a course on 'social innovation and leadership' which was taking over from a similar course in IRMA, the Institute of Rural Management, Anand, a pioneering rural management institute. It was soon realised that 'innovation' is not a neutral word and has two very strong

associations. The first, with new product development and the second with organisational theory and change. 'New Product Development' is currently offered in a few business schools in India.[1] Another area associated quite strongly with teaching of innovation is 'value chain analysis'. Contacts made with the University of Brighton's Centre for Research in Innovation Management (CENTRIM) revealed a strong association with innovation and value chain analysis. Much literature exists on these domains of innovation and it is therefore important to set aside the differences on innovation as process and some of the distinctions between organisations and institutions that is strongly prevalent in business schools for one but in the Indian academic environment in general.

A preliminary survey revealed that 'innovation system' as an idea is rather new in India and is not taught as such, though it does appear that the phrase has begin to find acceptance in some policy circles. The science and technology policy document does speak of a 'national innovation system' and India as an 'innovating developing country'. The President of India has given speeches with catchy titles like 'innovation is the key' and the CSIR (Council for Scientific and Industrial Research) Director General, Mashelkar adding to it with a paper titled 'I for Innovation'. So much of the challenge is to get to look at innovation differently and bring out ideas on 'innovation as a process' introduce the concepts of systems and networks to students and faculty and slowly get them to use these ideas.

The second part of speaking about innovation in India is the association with innovation as seen by organisations such as the Honey Bee Network (HBN) and the National Innovation Foundation (NIF) and its allied organisations such as SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions), GIAN (Gujarat Innvoation Augmentation Network) etc. many schools in India have student chapters of SCAI or 'student chapter for augmenting innovation' and no talk on innovation is possible without reference to the pioneering work of Anil Gupta from the Indian Institute of Management, Ahmedabad (IIM A) who is seen as the key person by many on innovation in India. Any design of curriculum on innovation management or innovation systems would do well to account for these two factors.

<u>The curriculum pilot- Activities undertaken</u>

The 'Innovation Management' course currently underway at XIM and likely to complete by December mid is an elective for the second year rural management students. More opted for the course initially but there is a tendency for students to take courses that are more 'job oriented' in the fifth semester and the new

[1] IIM Bangalore offers this as a core elective in the third term for the management students and the course is quite popular. A course on New Products was floated at XIM for the rural management students in the same semester as the current pilot and many students initially opted for this course. 'Innovation' management is still seen by students as something fuzzy not being part of the regular streams of management.

course was thus in a situation of ‘unfair’ competition and might need to be marketed differently next time around, if it has to compete in the market place of electives. However on the positive side, the lesser numbers allow for better interaction and more feedback on key concepts and ideas. The outline of the course (objectives, structure, design etc.) is provided as an attachment and the course has roughly been following the same lines.

One of the activities undertaken before the start of the course was a visit by the coordinator to a few academic institutions both for collecting literature and exploring the possibility of floating this in other places. In late August a visit was made to Ahmedabad, Anand, Delhi and Hyderabad and faculty of IIM Ahmedabad, National Institute of Design, Ahmedabad, IRMA, Anand, IIT (Indian Institute of Technology) Delhi, Administrative Staff College of India, Hyderbad, were spoken to. In each of these places libraries were visited and notes taken on the kind of ‘innovation literature’ that exists in these schools. These give an excellent idea of the thinking on innovation in India and what kind of books need to be introduced to promote innovation systems and the work of CPHP. Useful interactions and discussions were also had with Prof Anil Gupta and his colleagues at GIAN and NIF. They shared some CDs on their work, the CD of the journal ‘Honey Bee’ was sourced for use in the course is an excellent source to explain the institutional context of innovation in India. Apart from that NIF has a register of innovations that could also be used if necessary.

A research assistant was recruited for the purpose of facilitating collection and collation of material from the websites, and the library of XIM. EBSCO Host is a library service that provides access to several online journals and an attempt was made to collate research material on innovation systems using keywords and filters. Several useful websites and a much larger number of information that was not particularly useful was collected and this still needs collation. A course on innovation management has to have a mental mapping of innovation as it exists for people to associate with. Popular names like Everett Rogers and Rosabeth Moss Kanter figure in discussions on innovation and change management.

The collation of literature revealed some lacuna of the network. There is no single place where the work of many of the key members of the innovation network exists. We tried following the literature available in the website innvosys and realised that CRISP which runs the website does not possess one copy of each of these articles which could be xeroxed for use. Many of the course material can benefit from some of these articles which were written before the internet became popular and hard copies of some of these are essential if a good reading list needs to be done. Further some of these articles are easily available in specialised libraries such as UNU – INTECH. A good starting point for future action is if all the members interested in innovation systems literature give hard and soft copies of their publications which could then be compiled as a volume. The coordinator has made request to some of the members but it would require more active participation if such a compilation has to be made and used in future.

The mix of students is often diverse as was realised and many are often not from agriculture backgrounds. Their understanding of some basic ideas on technology transfer, extension cannot often be taken for granted in teaching the course. There is a need for much simpler material, shorn of jargon that communicates an idea and helps students to think through an idea. Much work it appears still needs to be done in this regard. The reading lists thus suggested are quite incomplete and need to be worked on to cater to a diverse audience that includes academics involved in innovation speak but also beyond that. Further if bridges are to be made with universities who probably look at innovation differently it is perhaps important to identify key members who could initiate this and have a workshop with them. This was clearly beyond the scope of the pilot.

Prof Norman Clark's visit: The coordinator of the pilot has been in constant touch with Prof Norman Clark, who spent a few days at XIM giving a few lectures and interacting with students. The timing of the visit unfortunately was after a long break and hence the best use of Prof Clark's time was not possible. However, regular interactions with Prof Clark led to reworking of the drafts of the suggested course material that he had prepared. He was able to test out some of the ideas with the students and very gently introduce the idea of innovation systems. Students worked on one of the innovation case studies and the exercise was very useful (the presentations made by the students on the case study and the case study are attached). Some of the ideas still need to be tried out but the writing of simple case studies without too much analysis and jargon was beneficial. Students are now likely to make sense of the cases provided in the text and have also been introduced to looking at things in more systemic ways.

The students also had a good exposure through the course to some practitioners of pro poor innovation. Though not part of the pilot, the visits of Paul Basil of Rural Innovation Network (RIN), Ashoka Innovators for Public who spoke on social entrepreneurship and one of the founders of Sun Min company, a company that promoted solar lanterns for urban poor were very useful. The last an urban 'pro-poor' innovation and an ongoing work provided a good working case studies for the students and it would be a good idea to identify and involve students in such case studies so that they can use the innovation systems framework rather than just repeat them.

The experiences of the pilot would of course go beyond the contract which was too brief and the coordinator will be glad to share any experiences and information in this regard. This note is to indicate the process that the pilot has been through with the very limited budget. A workshop would have been desirable but was not possible given the resources. Some institutes like IIT Delhi (the Centre for Rural Development and Technology) have expressed interest in floating the course and sharing insights with the students there. The exercise also helped identify some of the researchers working on innovation though with a strong new product development kind of focus. Similar possibilities in other

institutes can also be explored but need to take into account the organisational cultures of each place and good resource people who are interested or can be trained. In all of these it is important to be flexible and be more in tune with the thinking of key stakeholders. The concepts of institutions and institutional change are quite difficult to get across and require innovative pedagogy. Films like the one on TIDE (Technology Informatics and Design Endeavour) have been found be quite useful. Business plans of some of these organisations too if available can be put to good use. Student projects are often good ways to engage students.