## Investing in the Development Professional Concept Note

Milind Sohoni Head, Centre for Technology Alternatives for Rural Areas (CTARA) IIT Bombay.

#### 1 The background

The maturing of the Indian democracy in the new millenium now faces two important challenges, viz., increasing aspirations of its people and at the same time, severe resource and capacity constraints. These manifest themselves as demands, e.g., for *sadak, bijlee, pani*, and at the same time, diminishing opportunites for the poor and the asset-starved. The Indian state has tried to meet this situation through several schemes and programs such as the NREGA, Adarsh Gram Yojana and so on. Good implementation of these programs require additional technical capacity which is usually financially provisioned within the program itself. However, the quality of the technical capacity at the offered price-point is usually not satisfactory.

Besides these programs, even within the traditional structures, it is now clear that a new governance must evolve, which has an increased stress on efficiency, outcomes and delivery, and with enhanced technological skills in planning, design and coordination. Moreover, this must be done without substantial increase in the financial outlay of the State.

The Indian state must also grapple with the fact that globalization is taking away important engineering capacity into sectors such as IT, Banking and management. Thus, for a fresh graduate, a career or entrepreneurship in the development sector comes as choice of last resort. In 2011, the Ministry of Rural Development, Government of India proposed and implemented the PMRDF fellowship program to bring important capacity and fresh thinking to district administrations, esp. in the disturbed (LWE) areas. The fellowship program is a significant innovation in governance, for it aims to attract talented professionals in an outcome monitoring and coordination position which mediates between the people and the administration, and more so, within the administration, between the demand side (CEOs, collectors) and the supply side (the line departments).

The M.Tech. program in Technology and Development of CTARA, started in 2007, was concieved with a similar agenda, i.e., to attract engineering students to a career in development. The curriculum for the M.Tech. program is an innovative combination of field-work, technology and applied social sciences thinking, with a structured 10-week village stay as a perspective-changer for the students. As with other specializations at IIT Bombay, it also includes a broad elective structure and a 9-month long, staged M.Tech. project which trains the student for independent analysis and design. The program aims to groom *development professionals (DPs)* whose training includes working with NGO's and government agencies, in field and in policy situations. CTARA's work, through its students and faculty members, spans most sectors of development, such as Water, Energy, and Agriculture, and ranges from technology and policy interventions, products and processes, to key studies and analyses. Details of the program, and our research appears in a separate note.

### 2 The mechanism

The key mechanism of this proposal is (i) to create a new price-point and new role models for our engineers and young professionals so that the best talent is indeed attracted to development, and (ii) ensuring that these professionals create value commensurate with or exceeding their compensation. Most developed countries have indeed crossed this important tipping point, and this has generally been achieved by a closer collaboration between the state and the biggest civil-society-organization in a country, viz., the university.

Our proposal is that CAPART and the Ministry of Rural Development help define and create the new **Development Professional**. This should be done by (a) specifying a training and research program suitable for a development professional, (b) recognizing *De*- velopment Research Institutes (DRIs) capable of administering and nurturing this program, and (c) ensuring avenues for gainful participation of these professionals in the development sector. We believe that CTARA, IIT Bombay and its training satisfy (a) and (b) above, and we suggest a mechanism for (c).

We now seek the support of CAPART for three key positions, viz., (i) the District Development Coordinator, (ii) the Program Coordinator, and (iii) the Social Entrepreneur. Each of these is subsumed in the Development Professional (DP) umbrella, as CTARA sees it.

- The District Development Coordinator. The position reports operationally to the District Collector and ultimately to the district planning body composed of bureaucrats, department heads and elected representatives. The role is closest to the PMRDF and aims to mediate between the administration and the elected representatives, bring outcome orientation, planning and technological expertise. The District Development Coordinator will be supported by the DRI in key analyses and designs. These could be through short-term and medium-term projects between the district administration and the DRIs funded by agencies such as the DST. This mechanism should also be used to supplement the practices and knowledge of line departments.
- The Program Coordinator. The position will work either with NGOs or with statal/para-statal agencies in the design and delivery of key programs. It aims to bring key expertise and capacity to bring dramatic improvement in the outcomes of these programs. In the delivery role, the Coordinator will be responsible for the technical and social audit of the program bring new processes and thinking. She/he will report to the Program Manager and liaison with funding agencies such as DST and the DRI. The DRI will serve to develop methodologies, analyses and technological research relevant to the program.
- The Social Entrepreneur. This will explore and innovate in spaces left open by conventional companies, and in emerging needs of the bottom 80% in areas such as

energy, agriculture and water. This may be in the form of products, processes or consultancy. The Social Entrepreneur will be mentored by DRI and will also have access to the institute's research infrastructure, faculty and students.

## 3 The implementation and the expected outcomes

Each development profession (DP) position will receive support from CAPART to the the tune of **Rs. 5.00 lakhs per year for 2-3 years** (i.e., a sum of Rs. 10-15 lakhs per fellowship). Of this, Rs. 3.6 lakhs p.a. will accrue to the DP, while (upto) Rs. 1.4 lakhs p.a. will be used by the regional educational institutes to provide knowledge support and mentorship to the DP. The reporting officer for the District Development Coordinator and the Program Coordinator is expected to augment the salary of the DP so as to attract talent, and to support the position, e.g., by housing and field travel. The DRI must have demonstrated capacity to understand and influence development and its issues, and to conduct technological and applied social science research suitable for the training of the DPs.

The Development Professional fellowship may be launched with 10 fellowships for the M.Tech. graduates of CTARA. Eligibility of the graduate could be a CPI/CGPA of 8.0 on 10.0 with a 9.0 minimum on the M.Tech. project. CTARA will augment the M.Tech. training as CAPART deems fit so that the DP is better able to fulfill the desired role. CTARA will implement the fellowship by (i) informing various district collectors about the District Development Coordinator and the Program Coordinator programs, (ii) organizing interviews and meetings with eligible graduates, and (iii) assisting in the formulation of the contracts. It will also set up formal liaison between the district administration and CTARA staff and faculty. For the Social Entrepreneur, CTARA will mentor them and monitor their progress through periodic meetings and on-site visits. CTARA will use its name and capacity as a counter-guarantee to a certain extent, and also IIT Bombay's expertise in incubation.

CTARA will form a core team of faculty members and researchers/practioners who will

act as a conduit for the transfer of problems and solutions between DPs on the one side, and various departments of IIT Bombay, on the other. CTARA is already interacting with several district administrations (Raigad (Mah.), Sangli (Mah.), Thane (Mah.), Ganganagar (Raj.), Mandi (H.P.)) along these lines. In fact, a graduate of CTARA is already employed by Ganganagar district at Rs. 40,000 p.m., in a development coordination role in the Adarsh Gram Yojana. CTARA is also collaborating with the Rajaram Bapu Institute of Technology, Sangli, a TEQIP (World Bank funded project) institute, and IIT Mandi, working with them to form a centre/group similar to CTARA.

The medium-term expected outcomes of the DP initiative are:

- Bring efficiency and outcome accountability in core governance and program administration *without* net increase in financial outlay. The funding of the DPs should eventually pay for itself.
- Bring about a mechanism for collaboration between regional institutes of research and training and regional administrations. Bring problems of development within the ambit and focus of research and training institutes.
- Bring about a correction in the role-models for young engineers and applied social scientists. Focus the attention of entrepreneurs and professionals to the core problems of development. Increase, eventually, the capacity and skills of the technical/social service providers for the bottom 80%

# 4 Discussion

First, we compare the PMRDF program with our DP program.

• The first key difference is the Development Research Institute (DRI) and the access that the DP has to the DRI during her tenure. This will bring important resource, of students and faculty members, to field level problems. In the long run, it is hoped that institutes of excellence will want to becomes DRIs and thus become a bridge between mainstream R&D and our development needs.

- The second key difference is that the DP is expected to have *both technical and applied social sciences* design and analysis capacity. This will bring out the technological underpinnings of both the wealth creation and efficiency agenda of development, as well as the social agenda.
- Finally, the third difference is the duration and rigour of training. As we see it, the DP training should be broad enough to be on par with a typical professional Master's program (e.g., with electives and a project). This will enable the DP to exercise many other options besides the ones listed above, such as a Ph.D. in Development Studies or Development Economics, etc. or strategic and consultancy roles in various sectors.

The success of the program depends crucially on the value generated by the DPs, especially in the program and district development coordination. This in turn depends crucially on the training of the DPs and the commitment of the DRIs to both excellence *and* relevance. This is why the DRI must have an active and vibrant research program. CTARA and IIT Bombay are unique in this respect. Additionally, CTARA will maintain close contact with the reporting officers to calibrate our training and research. CTARA will also assist in creating a network of DRIs.

Next, while we have focussed on the DP as a rural position, a similar framework also applies to the urban setting or in state agencies such as in public transport corporations or irrigation. Here, the training and delivery would be more sector specific and center on efficiency and new knowledge and methods, i.e., applicable R&D. Lastly, after the 2/3-year tenure, we expect the DP to continue to work in the broad development sector. This may be in a similar position with a higher responsibility, or migrate to the NGO/private sector as an implementor or consultant. Over the years, the DP alumni will serve as a professional asset for the country.