CTARA-Vision, Action and the Future
Convocation-Alumni Day

Milind Sohoni
Centre for Technology Alternatives for Rural Areas
www.ctara.iitb.ac.in
Welcome
Welcome

Our Guest - Meeta Rajivlochan, IAS

- Principal Secretary, Directorate of Municipal Affairs
- Written extensively on many development issues
The Broad Vision in Development Action

Core values:

- The bottom 80%-households, hamlets, gram-panchayats, villages, towns and cities
- Basic areas-soil, water, energy, livelihoods, public health
  - end-user defined or demand-driven
- Concrete stake-holder and concrete deliverable-as close to implementation as possible
  - solutions and knowledge-technology, policy, study, capacity

Methods:

- Case Study: An important theoretical/practical/development tool.
- Field-work, inter-disciplinarity, applied social science and engineering
- State programs, markets and their functioning, innovation.
- increasingly: other engineering colleges, local partners.
Core Faculty

- Anand Rao - Energy and Environment, Climate Change
- N. C. Narayanan - Water and Governance, Development
- N. Shah - Food, Agriculture and Agro-Industry
- Priya Jadhav - Electricity, Energy
- Amit Arora - Agriculture, bio-mass systems.
- A. W. Date, Appropriate Tech.
- Om Damani, Water, modeling
- Rangan Banerjee - Energy Systems, Policy
- Milind Sohoni, Water, Optimization
- Puru Kulkarni - Water, public systems
- Bakul Rao - Environment Analysis and Assessment

Adjunct Faculty (some):
- Vishal Sardeshpande - Small enterprises, energy.
- Satish Agnihotri - Policy and Governance
- Prasad Modak - Environment
The Programs

Objectives of the M.Tech. program

To produce the developmentalist/development professionals
- Analyse "development" situations and design solutions
- Work with implementation agencies and see them to completion
- Rising demand for such professionals - NGOs, Govt., think tanks, CSR, consultancies

Objectives of the Ph.D. program

- Explore and innovate in the technology and development interface
- Contribute to the consultancy, higher education and research
- Produce the next generation of leaders for national programs
The current M.Tech. in T&D

Coursework

- **Perspective**-philosophical underpinnings
  Development Theory, Appropriate Technology, Policy and Governance

- **Sectors**-the knowledge base
  Water, Soil and Agriculture, Energy, Environment

- **Skills**-to bring rigour to field work
  Field Research Methods, Quantitative Methods, Project Mgt. and Analysis

- **Field work**- 9 week structured rural stay, field visits.

- **Two-Stage Project**-Ideally
  - Ist Stage-Situation and alternatives-Appreciation
  - IIInd Stage-Technology or Policy-Generation
The Programs

TDSL

- First-ever in the country.
- Institute-wide platform to do development projects for credit.
- A new pedagogy—design and analysis in live situations
- Interdisciplinary work with stakeholders
- TDSC Solutions and consultancy cell. To select and train MTD/TDSL students for private enterprise.
- UBA: MHRD program based on CTARA experience.
- RuTAG: Development support to NGOs.
Research Areas

- Energy policy, implementation of various energy systems, micro-grids, energy uses in lighting and irrigation. Rural electrification.
- Biomass processing. Agri-processing, food processing and food supplements.
- Policy in environmental services and water. Regional studies and the planning process in PRI.
- Drinking water solutions. Groundwater and surface water Schemes.
Sample works-Analysis
Sample works - Design
Sample works-Processes
Sample works-Assets
Sample works-Policy Studies
Sample works-Simulations
Sample works-Supply Chain
Sample works-Gadgets
What happened last year...

Thanks to Rangan Banerjee...

- **Various meetings and conclaves.** Manthan, CSR conference.
- **Academic ties.** TISS in winter school. Nanded, COEP, IIT Rourkee in TDSL.
- **Strategic.** TEQIP workshop with 17 Maharashtra colleges. Gondwana University.
- **Extension.** Swirlers, treadle pumps in Koraput, Jawhar. Priya at MERC. Lekshmi at GoM. Milind at GoM. SOUL.
- **Faculty.** PKPatwardhan institute award. Projects with ILFS, Concordia, Berkeley.
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- **Increase in strength!** Thanks to MoRD and HAL.
Behind all this...

- Basic issues of water, food, health and *living*.
- And what is to be done?
Serious, widespread and endemic. Needs more than technical solutions.

The question of knowledge. Exhausted job definitions.

The role of the University

- The old model is inadequate—gross mis-allocation, poor practices, increasing inequality and instability.
- A new model of university as a nurturer of civil society.
- New professions—entrepreneur, innovator, advisor, consultant, evaluator, coordinator
- Need for value-positive loops for society to migrate
- New knowledge, new mechanisms.
Our mechanisms

- **TDSC** Solutions and consultancy cell.
  - Launching future development consultants. Payment model.
  - Parbhani, Tembha, Mokhada, *Palghar, Thane*
  - **TDSC is hiring.**

- **MoRD Fellowships**
  - Professional development research. Strategic engagement for CTARA and GoI.
  - NRLM, PMGSY, NREGA and others such as *chulhas*.

- **UBA**: MHRD program based on CTARA experience.
  - The *Technology PUSH model*.

- **RuTAG**: Development support to NGOs.
  - The technology delivery model through NGOS.
  - Fisheries, Food processing, livelihoods.
In the medium term

Closer Interactions with various partners.

- Govt. of Maharashtra-Key GRs in water and engineering education.
  - Key development role in Maharashtra State.
  - Role model for other universities in India.
- UC Berkeley-long collaboration in water and policy.
- Closer collaboration with other departments.

Upcoming areas of research/courses:

- Small/Micro enterprises, rural livelihoods. Food and nutrition.
Finally...

- Life is long ....honesty, hardwork and humility pay.
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What do we expect?

- You will comprehend what others cannot.
- You will be the message and the messenger.
- That you will be in the in the public sphere, and not merely an employee or a consultant.
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What do we expect?

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- You will be the message and the messenger.
- That you will be in the public sphere, and not merely an employee or a consultant.

And yet you will be successful in the usual measures as well!

Development is indeed about comprehension, delivery, outcomes and role-models.
So let's keep trekking!