

July 31, 2015

5140730-1 2015 Summer
Case Study

INTERNATIONAL FIELD WORKSHOP

August 1-9, 2015



IIMB



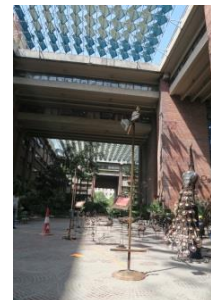
Infosys



Biocon



IISc



India Habitat Centre
(ICRIER)

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5140730-1 2015 Summer

Case Study (International Field Workshop)

August 1-9, 2015

Instructor: Professor Toshiro Nishizawa

GSDM Program Support Coordinator: Junko Okuhara

1. Members of International Field Workshop

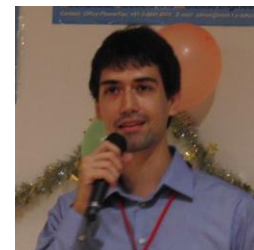
Muroga, Kiho (D1)

Division of Economics, Graduate School of Economics



Kovačević, Goran (M2)

Department of Electrical Engineering and Information Systems, Graduate School of Engineering



Umrzakov, Ilhomjon (M2)

Graduate School of Public Policy



Ueda, Yukiko (M1)

Graduate School of Public Policy



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Off-site support

Okuhara, Junko

GSDM Program Support Coordinator

Graduate School of Public Policy



2. List of organizations to visit

	Proposed task allocation
Bangalore Political Action Committee (B.PAC) http://www.bpac.in/	Muroga, Umrzakov
Biocon http://www.biocon.com/	Muroga, Kovačević
Indian Council for Research on International Economic Relations (ICRIER) http://icrier.org/	Umrzakov, Ueda
Indian Institute of Management Bangalore (IIMB) http://www.iimb.ernet.in/	Muroga, Umrzakov
Indian Institute of Science, Bangalore (IISc) http://www.iisc.ernet.in/	Kovačević
Infosys http://www.infosys.com/	Kovačević, Ueda
Embassy of Japan in India http://www.in.emb-japan.go.jp/index.html	Ueda

3. Program of activities as of July 31

	AM	PM	Accommodation
Aug 1, Sat		Arrival	Le Meridien Bangalore
Aug 2, Sun			Le Meridien Bangalore
Aug 3, Mon	IISc	B.PAC	Le Meridien Bangalore
Aug 4, Tue	IIMB	IIMB	Infosys
Aug 5, Wed	Infosys	Infosys	Infosys
Aug 6, Thu	Biocon		India Habitat Centre
Aug 7, Fri	ICRIER	Embassy of Japan	India Habitat Centre
Aug 8, Sat		Departure	
Aug 9, Sun			

4. Agenda and/or questionnaire

Bangalore Political Action Committee (B.PAC)

Muroga	<i>Policy for increasing female labor force participation</i>
Umrzakov	<i>Public-Private Partnerships (PPPs) for strong urban infrastructure</i>

Biocon

Muroga	<i>Implications of education for research and innovation (TBC)</i>
Kovačević	<i>How does R&D drive a successful enterprise?</i>

Indian Council for Research on International Economic Relations (ICRIER)

Umrzakov	<i>High-speed rail system for India</i>
Ueda	<i>Logistics network in Asia and Japan's role</i>

Indian Institute of Management Bangalore (IIMB)

Muroga	<i>Policy for increasing female labor force participation and the role of education</i>
Umrzakov	<i>Public-Private Partnerships (PPPs) for strong urban infrastructure</i>

Indian Institute of Science, Bangalore (IISc)

Kovačević	<i>Centre for Nano Science and Engineering (CeNSE): How can applied physics (photonics) influence social innovation?</i>
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Infosys

Kovačević	<i>Application of Big Data: Infosys Information Platform (IIP)—its scope and impact on social innovation</i>
Ueda	<i>Logistics network in Asia and the use of IT</i>

Embassy of Japan in India

Ueda	not specified
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REQUESTED PROGRAM OF ACTIVITIES AT B.PAC

We would appreciate it if we could have a two-hour session at B.PAC on Monday, August 3 with core members interested in the following subjects. Furthermore, we would be grateful if we could better understand B.PAC's mission, objectives, initiatives and activities through the conversation with members of Team B.PAC.

1. Policies and actions to enhance female labor force participation

We would like to discuss policies and actions to enhance female labor force participation. We understand that the female labor force participation rate (LFPR) in India is lower than that of men. Similarly, one of the current policy issues in Japan is how to create an enabling environment for married women to participate in the labor market. There should be a positive correlation between economic growth and the female LFPR. In order to address the challenges faced by India and Japan, we should first identify possible factors to keep the female LFPR lower than the male LFPR, for example, low school attendance rates (SAR) of women in India and insufficient provisions of nursery and childcare services in Japan.

2. Applicability of PPPs for the development of local transportation systems in the City of Bangalore

Urban infrastructure development is one of the priority issues on B.PAC's agenda. It is obvious that congestion in roads brings about high logistics cost, which would hinder local businesses and discourage potential foreign investors the city is trying to attract. Moreover, a growing population and accelerated economic growth would put pressure on the existing infrastructure services delivery. In order to develop well-functioning urban infrastructure, in particular, local transportation systems, Public-Private Partnerships (PPPs) could be one of the options to consider in light of limited government capacity, both administrative and financial, to meet a growing demand for public services delivery.

Against this backdrop, we would like to discuss applicability of PPPs for the development of local transportation systems with enhanced services delivery.

June 18, 2015

Prepared by Kiho Muroga and Ilhomjon Umrzakov
The University of Tokyo

REQUESTED PROGRAM OF ACTIVITIES AT BIOCON

We would appreciate it if we could have a half-day visit to Biocon on Thursday, August 6, consisting of an information session on Biocon, a brief lab tour, a discussion session on the proposed topic (a student presentation followed by discussion with professionals from Biocon), and a courtesy call on Mrs. Kiran Mazumdar-Shaw.

A proposed topic for discussion: "How does R&D drive a successful enterprise?" (prepared by Goran Kovačević, The University of Tokyo)

Participants are interested in Biocon from a researcher's perspective, as it has become a very powerful corporate enterprise based mostly on its state-of-the-art R&D. How does Biocon management choose research directions for investment? I can imagine that they form powerful think tank functions to figure out the market demand (i.e., what the world needs) and which products they can reach in the end. We would like to know this whole process and practice. Biocon's Innovation Matrix is particularly fascinating. All Leaderships are based on Innovation, and Innovation is based on Creativity.

We would also like to know Biocon's research and product marketing strategies for example in the field of Autoimmune Diseases treatment. I understand that Biocon has already developed *Itolizumab* and is marketing it in India, but I am curious why Biocon is not marketing it worldwide yet.

June 23, 2015

Prepared by The University of Tokyo for international field workshop in India

PROPOSED AGENDA FOR SESSIONS AT ICRIER

1. High-speed rail system for India and international cooperation—do the high-speed trains guarantee the higher and sustainable growth?

For the past several years, there have been discussions about the possibility of introducing high-speed trains in India. One of the current government's campaign promises was implementation of "10,000km Diamond Quadrilateral Network." The first phase (feasibility study) of this project covering Mumbai to Ahmedabad is ongoing by India-Japan cooperation. The result of the study is expected to be announced in July with a possibility for Japan to execute the project. In fact, Delhi Metro is seen as the fruit of India-Japan cooperation and expectations exist on both sides for deployment of bullet trains running over 320km per hour between Mumbai and Ahmedabad.

We would like to discuss with researchers from ICRIER on (a) the challenges faced by India in introducing high-speed trains (including the social and economic implications), (b) feasibility of Diamond Quadrilateral Network in near future and its possible positive externalities; and (c) the significance of India-Japan cooperation in this field.

2. Logistics network in Asia and Japan's role

We would like to discuss the potential of logistics network to connect the Northeast India with Southeast Asia and its significance for India and Japan. Discussions could start with the assessment of the current logistics network there and the challenges ahead in fulfilling the potential, such as infrastructure building and connection to the existing local logistics network in India. We could also discuss how Japan could contribute to addressing these challenges, including the use of ODA and the role of private sector.

June 17, 2015

Prepared by Ilhomjon Umrzakov and Yukiko Ueda

The University of Tokyo

PROPOSED AGENDA FOR SESSIONS AT INDIAN INSTITUTE OF MANAGEMENT, BANGALORE

We would appreciate it if we could have a two-hour session with faculty members and/or students on Tuesday, August 4 to discuss the following two issues. Furthermore, we would be grateful if we could participate in Tenth Annual International Conference on Public Policy and Management.

1. Policies and actions to enhance female labor force participation

We would like to discuss policies and actions to enhance female labor force participation. We understand that the female labor force participation rate (LFPR) in India is lower than that of men. Similarly, one of the current policy issues in Japan is how to create an enabling environment for married women to participate in the labor market. There should be a positive correlation between economic growth and the female LFPR. In order to address the challenges faced by India and Japan, we should first identify possible factors to keep the female LFPR lower than the male LFPR, for example, low school attendance rates (SAR) of women in India and insufficient provisions of nursery and childcare services in Japan.

2. Applicability of PPP for the development in local transportation in the City of Bangalore

Urban infrastructure development is one of the priority challenges faced by major cities elsewhere in emerging economies, including the City of Bangalore. It is obvious that congestion in roads brings about high logistics cost, which would hinder local businesses and discourage potential foreign investors the city is trying to attract. Moreover, a growing population and accelerated economic growth would put pressure on the existing infrastructure services delivery. In order to develop well-functioning urban infrastructure, in particular, local transportation systems, Public-Private Partnerships (PPPs) could be one of the options to consider in light of limited government capacity, both administrative and financial, to meet a growing demand for public services delivery.

Against this backdrop, we would like to discuss applicability of PPPs for the development of local transportation systems with enhanced services delivery.

June 24, 2015

Prepared by Kiho Muroga and Ilhomjon Umrzakov
The University of Tokyo

PROPOSED AGENDA FOR SESSIONS AT INDIAN INSTITUTE OF SCIENCE, BANGALORE

How can applied physics (photonics) influence social innovation? (Centre for Nano Science and Engineering; CeNSE)

My main area of research is in photonics, and I would like to discuss with the experts from IISc about the potential social impacts of our findings.

This question is not only targeted at photonics researchers, but at applied physicists in general. When working in engineering physics, many of us are driven by scientific curiosity, but more importantly, researchers should have an idea about the social applications of their findings.

Furthermore, I am afraid that ordinary people can make little connection between fundamental research and social innovation. For this reason, I would like to discuss about how to increase awareness of the impact of fundamental research on people's lives. The fault is partly on researchers themselves who are unable to communicate the importance of their research and could lead to a downward spiral as the lack of awareness leads to the funding cuts and slows down scientific (and social) advancement.

June 15, 2015, revised July 13, 2015

Prepared by Goran Kovačević

The University of Tokyo

PROPOSED AGENDA FOR SESSIONS AT INFOSYS

1. Application of Big Data

1.1. Infosys Information Platform (IIP)—its scope and impact on social innovation

I would like to discuss about the full potential of Big Data and Cloud Computing development at Infosys through the IIP. I am interested in the application for financial institutions and the impact of Big Data on social innovation in general.

I understand that a lot of emphasis is on the "talent" for Big Data. How do they recognize a good data scientist? Are they only focusing on computer science majors or other acceptable majors (e.g., applied physics, biology, and economics)? Are there training programs for newcomers? Diversifying the talent base could be beneficial for a broader coverage of potential applications.

I would also like to talk more about the future of Big Data and where do they see Infosys in it. They use a lot of open-source software and make it more accessible to general consumers. Is this approach sustainable? I would like to know how the data centers back up Cloud Computing services.

1.2. Application of Big Data for natural disaster mitigation

Humankind witnessed great advancement in every aspect of engineering, science and technology over the past century. However, we also live in a world driven by mass consumption and mass production. Globalization has come with a great cost—climate change. Climate change has resulted in hundreds of thousands of people killed and millions injured, affected or displaced each year. The amount of property damage has been doubling about every seven years over the past 40 years (ICSU, 2014). To worsen the horizon, according to the Intergovernmental Panel on Climate Change, climate change is accelerating (IPCC, 2007) and this trend is likely to continue partly due to the unwillingness of countries dependent on fossil fuels.

It is now of great importance to have a thorough understanding and capabilities to predict with greater accuracy future catastrophic events, as well as to adopt a deeper understanding on the mechanisms and dynamics of natural disasters phenomena.

Big Data collection and Cloud Computing and their applications have shown to have a great impact on different aspects of our daily lives as well as in the field of academia. In this sense, I would like to discuss possible applications of Big Data for creating a more resilient society against natural disasters and for developing better early warning systems and future prediction models.

2. Logistics network in Asia and the use of IT

I would like to discuss the potential role of IT to improve logistics performance in Asia. Discussion covers the experiences in Japan and India as well as an overview of Asian logistics and the role of IT. We could also discuss how the private and public sectors collaborate to make the most use of IT to address challenges in logistics in Asia.

June 12, 2015

Prepared by Goran Kovačević, Tejada Christian Haussner, and Yukiko Ueda
The University of Tokyo
