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About the photograph:
Racing car designed by COEP students

Photo courtesy: COEP, Pune

College of Engineering, Pune: Taking reforms to a new height

“TEQIP has come as a shot of oxygen, helping us unleash our latent potential,” says Prof Chaudhuri, the institute’s Deputy Director. “Now, we are ready to do our part and mentor another 50 institutions on the path towards excellence.”

Beneath the vaulted halls of the grand old College of Engineering in Pune (COEP), undergraduate students have begun sending satellites into space. The institute, which dates back to 1854 and produced India’s first civil engineer and statesman – Bharat Ratna Sir M. Visvesvaraya – has, after a lull of many years, reemerged as a center of excellence.

Engineering Education in India – a snapshot

- 3,500 engineering colleges in India, both public and private
- Sanctioned student intake 17,61,976 students
- 91% engineering colleges are private
- Enrollment in private colleges is nearly 5 times that in government colleges

From 2003 onwards, when the college was chosen – through a nationally competitive process – to be one of the 127 engineering and technical institutes supported by the Government of India and World Bank’s Technical/Engineering Education Quality Improvement Project (TEQIP), the institute has undergone a major upgrade.

Since then, it has revamped its curriculum, introduced new courses, enabled faculty to update their knowledge, installed the latest lab equipment, and boosted research. Collaborations with industry and foreign universities have helped bring in the latest knowledge, and an incubator has been established to promote entrepreneurship.

“Today, some of the most sought-after employers – Amazon, Microsoft, Google, Yahoo and others who recruit primarily from the IITs – line up at the COEP campus for placement,” explained Dr. Sandeep Meshram, the institute’s corporate relations officer who is also incharge of campus placement.

The institute’s decade-and-a-half long effort is reflected in the latest rankings. In 2016, COEP ranked 21st out of the top 100 engineering colleges in the country, even higher than some IITs and NITs. The rankings were carried out by the Ministry of Human Resource Development (MHRD) – the first time the MHRD had done so. “Now our aim is to be among the top ten in the country,” said a proud Prof. B.B. Ahuja, the institute’s director. “And, we have begun to look at the world’s best universities to reach their standards.”

The scale and diversity of India’s technical and engineering education is huge. But while India is said to produce the largest number of engineers in the world, only a few of its engineering institutes rank among the best internationally. As a result, even though there is an abundance of raw talent in the country, and the demand for engineering education is huge, most students end up studying at secondary level institutes. “It is at these institutes where the need to improve



is the greatest,” said Mr. R Subrahmanyam, Additional Secretary, MHRD. “And the Government of India is committed to making this happen.”

The importance of autonomy

So, what made the difference? In one word – autonomy from the state. Autonomy not just on academic issues, but also in financial, administrative and managerial matters.

“Autonomy is essential for promising institutes to reach their full potential,” said Francisco Marmolejo, the World Bank’s global lead in tertiary education. “Unless institutes have the autonomy to determine their goals and priorities, curriculum and student evaluation methodologies, they are unlikely to succeed in preparing India’s young people for the jobs of tomorrow, encourage innovation, and lay the foundations for lifelong learning.”

Revamping the curriculum

At the College of Engineering in Pune, change began to happen when the Government of Maharashtra granted it complete autonomy in 2003 as a precondition for participating in TEQIP. TEQIP, one of the World Bank’s longest standing projects worldwide, saw autonomy as the cornerstone for institutions to progress and create a culture of accountability.

For the newly autonomous COEP, the first

step was to pin down where it needed to improve by formulating its Institutional Development Proposal, a feature introduced under TEQIP, whereby institutes undertake a thorough SWOT analysis, outline their reform priorities and present an action plan to achieve results.

Using IIT Mumbai as the role model, the institute realized that it must begin by revamping the curriculum. In a bold decision, therefore, the college’s Board of Governors, headed by the visionary Dr. F.C. Kohli, abandoned the curriculum being followed and replaced it with one on the lines of IIT Mumbai.

Next, to equip the faculty to deliver the new curriculum, nineteen faculty members were sent to IIT Mumbai to undergo intense training. “They left Pune at 5 every morning and, after completing one semester at IIT Mumbai, sat for exams along with other students,” explained Prof Ahuja. “Dr. Kohli had envisioned this move as a precedent for other institutes to follow.”

After this, IIT Mumbai beamed their lectures live into Pune classrooms. This immensely successful exercise allowed Pune’s faculty and students to interact with IIT professors, resulting in a quantum leap in the standard of academics at the Pune institute.

“An important feature of TEQIP has been to build bridges between institutes. The project



has leveraged the expertise of the best in the country – the IITs and IIMs – to improve the academic rigor in TEQIP colleges while also strengthening leadership practices,” said Tara Bêteille, TEQIP’s project leader. This kind of resource-sharing and leveraging is especially important, given that India has nearly 40,000 higher education institutes spread across the country. Compare this with China where tertiary education is not so fragmented – China has under 3,000 such institutes in all – even though enrollment at the tertiary level is higher in China than in India.

Today, COEP frames its curriculum independently – with feedback from faculty, students, the college placement cell, and industry – and revises it regularly. “Our curriculum changes by around 25 percent each year, making a big difference to the relevance of what we teach,” said Prof Ahuja. “For instance, given the importance of bio-medical engineering for the world of tomorrow, Dr. Kohli helped COEP introduce a new course in biology for all its students way back in 2007. Now, IIT Mumbai has introduced a similar course.” A variety of multi-disciplinary courses have also been introduced and the institute has plans to introduce many more.

COEP is also one of the few institutes in the country to teach mathematics in all 8 semesters of its undergraduate programs, grooming its students to be life-long learners

by giving them a strong foundation that can be put to use in applied as well as social sciences.

Moreover, in an intrepid move towards transparency, the institute has started showing its students all their answer papers. “At first we used to get a lot of questions about marking. But now students see the fairness of the process, and these numbers have come down,” Prof Ahuja explained.

Empowering the faculty

While all this has meant more work for the faculty, the institute’s autonomy has enabled it to open up new opportunities for their professional development. TEQIP funding has helped the college pay for faculty to earn their PhDs from some of the best research institutes in the country. “Today, 55 percent of COEP’s faculty hold doctoral degrees, compared to just 5 percent earlier,” explained Dr. V.N. Pande from the electrical engineering department.

Autonomy has also enabled the institute to recruit its own faculty. In 2003, the college had just 99 faculty members; now their number is 220. And vacancies, which used to be a high 50 percent at any given time, are now down to 10 percent. Importantly, no transfers have taken place for 14 years – again as a result of administrative autonomy – enabling faculty to settle down and concentrate on their research.



Satellite Club

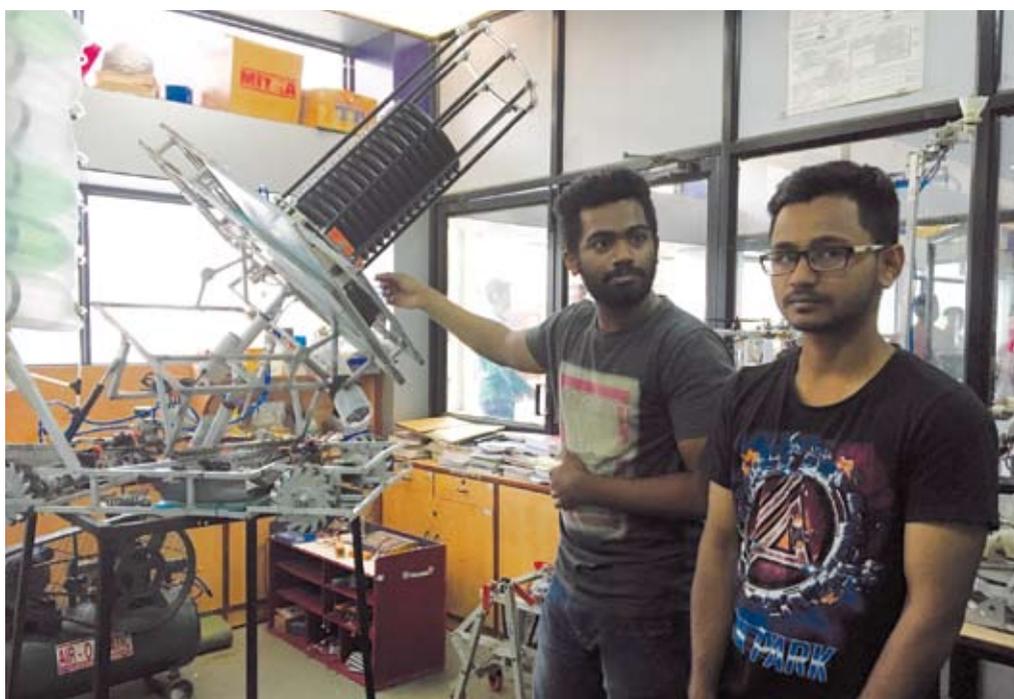
It all began in late 2008 when an IIT Mumbai student asked a friend at COEP to build a ground station for the satellite they were creating. Why not build a satellite of our own, the Pune student thought. From then on, a small group of COEP students worked relentlessly and, barely eight years later, successfully launched Swayam – their satellite – even before their counterparts at IIT Mumbai could do so. Swayam, launched by ISRO on 22nd June 2016, became the 4th student satellite from India to enter space. “Our seniors’ efforts were a great example of ‘jugaad’ – or making do with whatever was available,” explained Umer, a fourth year student of computer engineering at COEP, who now leads the college’s satellite club. “Given their limited budget, they used things that were low-cost and effective. They even used a strip of normal measuring tape as the antenna.” Still, they managed to fit the entire avionics and structure into a tiny 10 cm X 10 cm X 11.35 cm cube weighing less than 1 kilogram which could withstand the extreme conditions in space and function reliably with little power. They also devised an innovative passive stabilization system for the satellite, pioneering the use of such a system in India. Since that time, they have presented their work in numerous international conferences, earning recognition the world over. The current team aims to launch the world’s first satellite that uses solar sails.

The college’s Board of Governors has also made it easier for faculty to attend conferences both in India and abroad, explore new partnerships with other universities, and bring back new ideas. In addition, they receive financial support to file patents and commercialize the products they create.

Focus on research

Financial autonomy has also given the college the flexibility to invest in new lab equipment. “Earlier, our equipment was so old, we used to be known as the museum of engineering,” said Prof M.J. Rathod, Professor of Metallurgy and Materials Science, with a smile. “Now with upgraded infrastructure, many labs are open beyond regular hours, many a times 24 X 7. This has enabled a number of PhD students from across Maharashtra to complete their theses, and many other students to receive accolades for their work.” Furthermore, since researchers from industry and elsewhere pay to use COEP’s equipment, the college is able to pay for its maintenance.

The new lab equipment has led to a dramatic increase in the number of publications in various conferences and journals. These have shot up from just 500 in 2003-04 to over 1,600 today. In addition, 42 patents have been applied for so far, of which seven have been granted.



Collaboration with industry and foreign universities

Since Pune is a major hub for high-end manufacturing, the college has taken full advantage of its strategic location to make student learning relevant for the real world. “In every department, two labs have been set up by industry. In addition, each department has an industry advisory board that charts out students’ future learning needs, and numerous opportunities have opened up for collaborative research,” explained Dr. Meshram, the institute’s corporate relations officer. “Moreover, some 10-12 industries provide scholarships totaling over Rs 1 crore.”

To broaden the students’ learning experience, collaborations with foreign universities such as Nanyang Technical University in Singapore and the University of Westphalia in Germany, have also been initiated. “We started collaborating with Israel on cyber security some years ago, and now we run a full-fledged master’s program in the subject,” added Dr. Mukul Sutaone, Dean of Academic Affairs.

A new incubator, a hand-holding initiative by alumni

Given the importance of innovation in today’s world, ‘entrepreneurship’ has been a buzz word at the institute since 2009, thanks in large part to the efforts of alumni and donors. Alumni have been delivering courses on the subject for some time now and, recently, have contributed to the setting up of an incubator – the Bhau Institute of Innovation, Entrepreneurship and leadership (BIEL). The aptly named institute – ‘Bhau’ means

older brother in Marathi – has begun to help young start-ups turn their ideas into viable businesses; over the past four years, 393 start-ups have been helped to take off.

The critical role of the Board of Governors

All said and done, both COEP’s director and faculty agree that none of this would have been possible without the visionary leadership of the college’s Board of Governors, especially its Chairman Dr. F.C Kohli. “Every board member has led from the front, giving a minimum of 100 hours of their time each year with passion and energy,” said Prof. Ahuja. “They have been receptive to new ideas from the bottom-up, and given quick decisions with transparency and openness.”

“TEQIP too has come as a shot of oxygen, helping us unleash our latent potential,” added Prof Chaudhuri, the institute’s Deputy Director. “Now, we are ready to do our part and mentor another 50 institutions on the path towards excellence.”

There is no reason why, given autonomy, other colleges too cannot deliver education to the same high standards. And, perhaps be the next to launch a satellite into space.

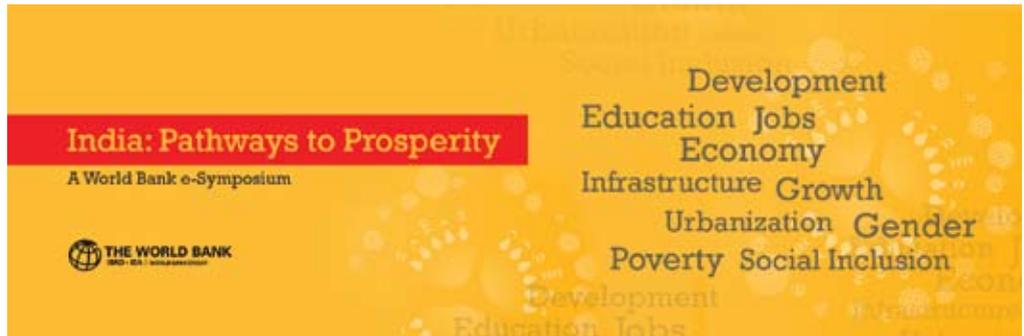
Next steps

TEQIP III, which started recently, will carry forward the quality-oriented reforms initiated under TEQIP II. The focus of TEQIP III will be on strengthening the engineering education system in India’s low-income states. Approximately 100 government engineering colleges from these states will be paired with well-performing colleges from previous phases of TEQIP, such that each can leverage the other’s strengths. TEQIP III will also work closely with Affiliating Technical Universities in these states to ensure that reforms pertaining to faculty development, curriculum, research and student employability reach all engineering colleges in the state regardless of whether they are government or private. Finally, using internationally comparable tests, TEQIP III will track how well students are doing in terms of content knowledge and critical thinking as they go through their college years. 🌐



Pathways to Prosperity

India, the driver of growth for Bharat



How has India's recent growth impacted poverty in the country? We look at how India's rapid structural transformation over the past three decades – the shift from agriculture to industry and services, and from rural to urban areas – is changing the relationship between economic growth and poverty reduction, say Gaurav Datt, Martin Ravallion and Rinku Murgai.



India's economic take-off during the 1990s and the early 2000s is now part of the country's economic folklore. This remarkable upturn has also come with faster poverty reduction. After 1991, per capita income grew nearly two-and-a-half times faster in real terms compared to the preceding three-and-a-half decades. During this time, the fall in

poverty also picked up pace. But was the faster pace of poverty reduction after 1991 simply a reflection of faster growth, or did poverty indeed become more responsive to growth? What's more, did the changing pattern of India's growth matter to the pace of poverty decline and, if so, in what way? We examine these issues in some detail.



Growth has become more pro-poor

First, has India's growth become more pro-poor or not? One measure of the pro-poorness of growth is the elasticity of poverty reduction to growth – in other words, by how much did poverty decline for every 1 per cent increase in per capita income or consumption? Thus, the question of whether poverty became more responsive to growth can be rephrased as whether the elasticity of poverty reduction to growth has increased or not.

It turns out the answer depends to some extent on how growth is measured. If by growth we mean changes in per capita consumption derived from household surveys, there is strong evidence that not only is the post-1991 period one of faster growth, it is also one of more pro-poor growth; the elasticity of the headcount index to growth increased from 1.5 (pre-1991) to 2.7 (post-1991). On the other hand, if growth is measured by per capita income or consumption from the national accounts, the evidence still points to a higher elasticity for the headcount index post-1991. For poverty measures that take the depth or severity of poverty into account, the evidence is mixed: higher elasticity of poverty reduction post-1991 only holds if growth is measured using the surveys, but not if it uses national accounts.

Rapid urbanisation is now driving economy-wide gains to poor people

Then, did the changing pattern of India's growth matter to the pace of poverty decline and, if so, in what way? Our research shows that during the past two decades the rural poor gained more from urban growth than from rural growth, altering the relationship between the pattern of growth and poverty reduction that had prevailed in India until then. For instance, in the early 1950s, about 85 per cent of the poor lived in rural areas and depended on the rural economy for sustenance. It is thus not surprising that before 1991, rural growth largely determined poverty reduction in the country. While urban growth did indeed reduce urban poverty, it contributed little or nothing to poverty reduction as a whole. This reflected the weak linkages between urban growth and the rural economy.

Since the early 1990s, however, this pattern has undergone a striking change. Urban growth has now emerged as a major driver of national poverty reduction. Since 1991, urban growth was responsible for about 80 per cent of the total fall in poverty. This happened both directly, through urban growth having a larger impact on urban poverty, but even more importantly indirectly, through urban growth having a substantial impact on rural poverty.

This indicates that the growth of cities, which have both bigger populations and higher productivity, has been good for poverty reduction as a whole in India.

Growth and poverty reduction is increasingly driven by the secondary and tertiary sectors

Next, we examined which sectors had emerged as the primary drivers of India's growth. Before 1991, rural growth, especially in the farm sector, mattered most for poverty reduction. But in recent times, it has become more difficult to attribute poverty reduction to any specific sector. In fact, post-1991, all sectors have contributed to reducing poverty. Indeed, with the greater integration of the Indian economy, growth in one sector has begun to transmit its gains elsewhere to a greater extent than before, and the imbalance in the growth process has ceased to matter.

Because the size of the primary sector has fallen, its overall contribution to the decline in poverty has also dwindled. Whereas before 1991 the primary sector accounted for about two-fifths of the total poverty decline, after this period its contribution fell to less than 10 per cent of the total — and larger — decline in poverty.

At the same time, the contribution of the

other sectors to poverty reduction has risen substantially. While growth in the secondary sector accounted for about 25 per cent of the fall in poverty after 1991, the tertiary sector alone contributed over 60 per cent to its decline. Since 2000, India's construction boom — which has intensively used low-skilled labour — has helped secondary sector growth to be more pro-poor.

In short, the Indian economy is changing and so is the relationship between economic growth and poverty reduction. The process of structural transformation of the economy has intensified, and with it, the traditional sources of both economic growth and poverty reduction are getting displaced. As this process continues, the country can be expected to increasingly turn to growth in its urban and non-agricultural economy to drive future poverty reduction.

Reference: Datt, Gaurav, Ravallion, Martin, and Murgai, Rinku, 2016, "Growth, Urbanization and Poverty Reduction in India," NBER Working Paper 21983. 

Gaurav Datt is Associate Professor at Monash University, Melbourne. Martin Ravallion holds the Edmond D. Villani Chair of Economics at Georgetown University, Washington DC. Rinku Murgai is Lead Economist at the World Bank, New Delhi.

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Rethinking development finance to meet rising aspirations



At the World Bank Group, we are fundamentally rethinking development finance. Whenever possible, we need to work with countries to crowd in private capital. And we should combine this capital with our knowledge – technical expertise, knowledge about the countries and the economy – so that capital really works for poor countries and poor people, says Jim Yong Kim, World Bank Group President

Go almost anywhere in the world, and you'll see people on cell phones and computers. As the internet and social media connect more people, they know exactly how everyone else lives.

Knowing how everyone else lives, in their own countries and abroad, is leading to a global convergence of aspirations. But these aspirations aren't just for things that other people have; they're demands for opportunities that too many don't have.

Here's the good news: aspirations, linked to opportunity, can breed dynamism and inclusive, sustainable economic growth. Aspirations can lead to new markets and opportunities for investors.

But if there's no path to meet those

aspirations, we fear that they could turn into anger, resentment, and possibly even extremism. We're already seeing worrying trends – 2 billion people live in countries affected by fragility, conflict, and violence. Between 2012 and 2015, terrorism incidents increased by 74 percent, and the number of deaths from terrorism increased by almost 150 percent.

To meet these rising aspirations, we need trillions in investments of all kinds into emerging markets: public and private, national and global. The only way we can spur that kind of investment is to find ways to create markets and bring private sector rigor and innovation to developing countries.

At the World Bank Group, we are fundamentally rethinking development finance.

Whenever possible, we need to work with countries to crowd in private capital. And we should combine this capital with our knowledge – technical expertise, knowledge about the countries and the economy – so that capital really works for poor countries and poor people.

We believe that all development finance institutions should be working to crowd in private capital through a set of principles that will maximize resources and benefits for the poor. We're not there yet, but this is how we think we should proceed in order to get there.

First, for every project, we have to ask, "Can the private sector finance this on commercial terms?"

In 2006, the World Bank Group worked with the Jordanian government to finance improvements to the Queen Alia International Airport in Amman. This could have been financed solely by public money, but the government was interested to see if they could bring in the private sector.

We worked with the government to lay the ground work for private investment. Our private sector arm, the International Finance Corporation (IFC), put an appropriate deal structure in place, and invested \$270 million of its own capital. We were able to attract enough commercial financing to cover the rest of the project.

The government contracted the airport's operations to a French company, which pays Jordan an annual fee. It's a genuine public-private partnership. Jordan receives 54 percent of the net revenue and they're making money every year.

Over the last nine years, without any direct investments, Jordan has received more than \$1 billion in revenue – and they don't have project loans to pay back.

We have to look everywhere for more opportunities like the Queen Alia Airport.

Second, we have to encourage upstream reforms.

We saw this work in Turkey in the energy sector. Over a decade, with other partners, we supported the creation of power and gas markets – with a focus on regulations and pricing structure. We used public finance for public-good investments like transmission expansion and advised on regulatory changes for energy efficiency.

As the market liberalized, IFC invested in renewable energy. And our Multilateral Investment Guarantee Agency, which specializes in political risk insurance and credit enhancement, provided coverage. With just \$5 billion of public investment and policy loans, Turkey was able to attract more than \$55 billion in private power and gas investments.



Third, we have to use public or concessional finance in innovative ways to mitigate risk, and blended finance to support private investment. Here's what we're working on now – a risk mitigation mechanism called the Managed Co-Lending Portfolio Program. This platform allows institutional investors in OECD countries to invest in projects in the developing world and get a return on their investment.

IFC and the Swedish International Development Agency provide a first loss guarantee of 10 percent, creating an investment grade risk profile on a loan portfolio of emerging market infrastructure investments. This allows partners who have relatively conservative risk appetites to invest in emerging markets. German insurer Allianz is providing \$500 million to this platform, which we estimate can mobilize 8 to 10 dollars for every dollar of public money.

Our goal, for example, is to find a way for a pension fund in the United States to be able to invest in building roads in Dar es Salaam that allow people to get to their jobs in the morning and get home to their families at night. Investors can get a reasonable return on that investment, and do a lot of good in the process.

For decades, the rich have used sophisticated tools – swaps, derivatives, debt – to get richer. We need to put those tools to work in creative ways on behalf of the poor. At the World Bank Group, we think of ourselves as strategic advisors and honest brokers who link capital looking for greater returns to countries looking to achieve their highest aspirations.

We believe that everyone in the development community can be an honest broker who helps find win-win outcomes – where owners of capital get a reasonable return, and developing countries maximize sustainable investments.

There's never been a better time to find those win-win solutions. Right now, there's \$8.5 trillion sitting in negative interest rate bonds, \$24.4 trillion in low-yield government securities, and an estimated \$8 trillion in cash, waiting for better investment opportunities. We can mobilize this capital to help meet the exploding aspirations of people all over the world.

Aspirations are rising all around us; let's see if we can raise our own to meet them. 🌐

This article was originally published in LinkedIn on 01 May 2017



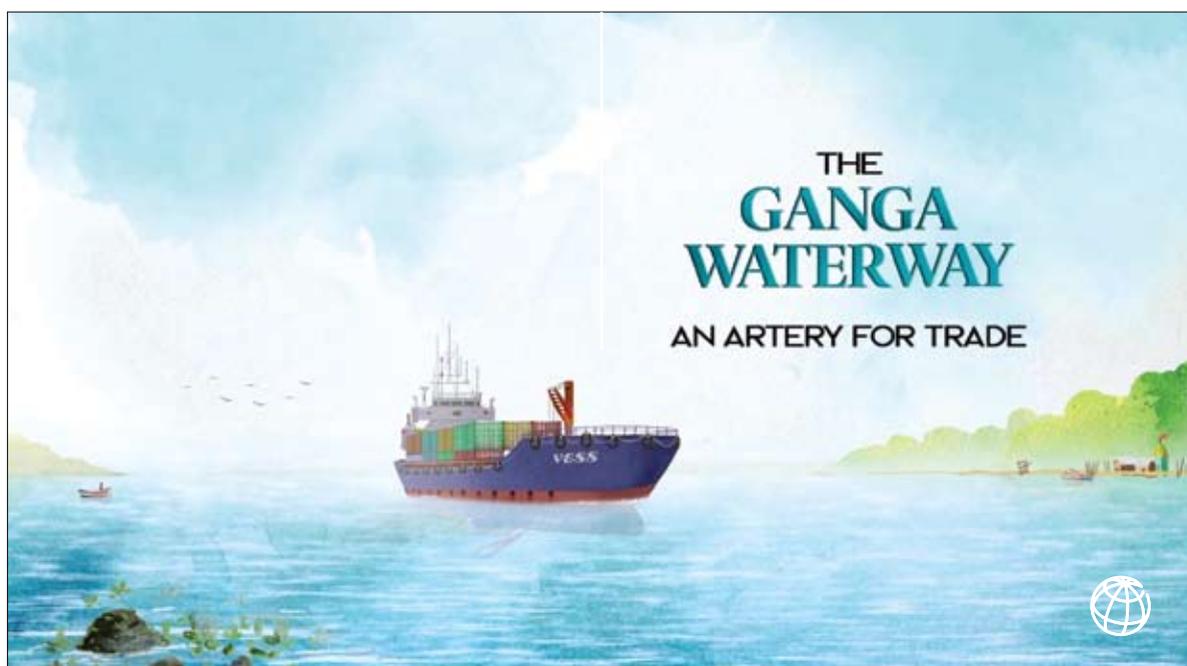
Recent Project Approvals

The Capacity Augmentation of National Waterway 1 (Jal Marg Vikas) Project

The World Bank will support India as it sustainably develops its first modern inland water transport fairway on a 1,360 km-stretch of the Ganga river between Varanasi and the seaport of Haldia, bringing thousands of jobs in cargo logistics and transportation to one of the most populous regions in the country.

The World Bank's Board has approved a \$375 million loan to help the Inland Waterways Authority of India (IWA) put in

place the state-of-the-art infrastructure and navigation services needed to develop the waterway – known as National Waterway 1 – as an efficient logistics artery for northern India, while adopting the least intrusive methods of making the river navigable. The Capacity Augmentation of National Waterway 1 (Jal Marg Vikas) Project will help save more than 150,000 tons of CO2 equivalent in greenhouse gas emissions annually by moving cargo away from fossil fuel-consuming road and rail networks. 



Shared Infrastructure for Solar Parks Project

The World Bank Board has approved \$100 million to help India increase its power generation capacity through cleaner, renewable energy sources.

The Shared Infrastructure for Solar Parks Project will establish large scale solar parks in the country and support the Government of India's plans to install 100 gigawatts (GW) of solar power out of a total renewable-energy target of 175 GW by 2022. The project will finance the Indian Renewable Energy Development Agency Limited (IREDA), to

provide sub-loans to select states to invest in various solar parks that are included in the Ministry of New and Renewable Energy's (MNRE) Solar Park Scheme.

The first two solar parks to be supported under the project are in the Rewa and Mandsaur districts of Madhya Pradesh, with targeted installed capacities of 750 MW and 250 MW, respectively. In addition, other states where potential solar parks could be supported under this project are in Odisha, Chhattisgarh, and Haryana. 

Madhya Pradesh Urban Development Project

The World Bank Board has approved a \$116.20 million loan for the Madhya Pradesh Urban Development Project to strengthen the financial and administrative capacity of the Madhya Pradesh Urban Development Company Ltd (MPUDC). MPUDC will serve as a nodal implementing agency for the state and support Urban Local Bodies (ULBs) to implement citywide infrastructure improvement projects.

Based on the World Bank's previous engagement with similar state municipal finance agencies in Tamil Nadu and Karnataka, as well as its international experience in developing and strengthening similar institutions, the Government of Madhya Pradesh (GoMP) has now sought World Bank support for the institutional development of the MPUDC to help improve key urban services provided by ULBs, mainly in the areas of water and sanitation. MPUDC will also support

GoMP prepare a plan for developing the Bhopal Indore Super Corridor (BISCO) region.

The project will support urban policy reforms in the state as identified under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), a mission aimed at transforming 500 cities and towns into efficient urban living spaces. At least 51 ULBs have been selected to implement these reforms.

Over 850,000 urban residents, of which at least 45 percent will be women, are expected to benefit directly through access to improved urban services across a range of urban sectors, mostly water and sanitation. With the consolidation of MPUDC as a nodal implementing agency of the state, many more residents are expected to be benefited through a series of investments undertaken by other development agencies and central government schemes. 🌐

Recent Project Signings

National Hydrology Project

The Government of India and the World Bank have signed the \$175 million loan agreement for the National Hydrology Project. The project will strengthen the capacity of institutions to assess the water situation in their regions and reduce their vulnerability to recurring flood and droughts, saving hundreds of lives and livelihoods.

The loan agreement for the project was signed by Raj Kumar, Joint Secretary, Department of Economic Affairs, Ministry of Finance, on behalf of the Government of India and Genevieve Connors, Program Leader and Acting Country Director, on behalf of the World Bank.

The Project will build on the success of the Hydrology Project-I and Hydrology Project-II, under which, for the first time, real-time flood forecast systems were integrated with weather forecasts in two large river systems (Krishna and Satluj-Beas), giving reservoir managers

an accurate picture of the water situation in their region. As a result, the time available for early warnings on flood and preparation for flood management improved from hours to days, which led to saving hundreds of lives and avoided flood damages ranging from \$17 million to \$65 million in a year.

This project will now scale up the successes achieved under HP-I and HP-II to cover the entire country, including the states in the Ganga, and Brahmaputra-Barak basins. 🌐



West Bengal Support to Institutional Strengthening of Gram Panchayat Program – Phase II (ISGPP-II)

The Government of India, the Government of West Bengal and the World Bank have signed a \$210 million loan agreement to strengthen Gram Panchayats (GPs) – the lowest tier of rural local governments – to better utilize the untied/discretionary funds that are now available to them.

The agreement for the Project was signed by Raj Kumar, Joint Secretary, Department

of Economic Affairs, Ministry of Finance, on behalf of the Government of India; Soumya Purkait, Special Secretary, Panchayat and Rural Development Department and Project Director ISGPP-II, on behalf of the Government of West Bengal; and Hisham Abdo, Operations Manager and Acting Country Director, World Bank India, on behalf of the World Bank.

During the first phase of this Program (ISGPP-I), performance-based block grants (PBG) were given to 1,000 better performing GPs within nine districts for investing in priority local infrastructure and service delivery projects. Out of the 92,000 activities carried out by the GPs using ISGPP grants, 54 percent were on transport, 23 percent on water and sanitation, and 20 percent on public buildings. Similar activities are envisioned under ISGPP-II for all 3,342 GPs, with expected economic benefits including employment generation and increased efficiency in spending. 🌐



Uttarakhand Health Systems Development Project

The Government of India, the Government of Uttarakhand and the World Bank have signed a credit agreement for the \$100 million Uttarakhand Health Systems Development Project to improve access to and quality of health care services in all 13 districts of Uttarakhand, a mountain state richly endowed with natural resources.

The agreement for the Project was signed by Raj Kumar, Joint Secretary, Department of Economic Affairs, Ministry of Finance, on behalf of the Government of India; Neeraj Kharwal, Additional Secretary, Health and Project Director for the Uttarakhand Health Systems Development Project, on behalf of the Government of Uttarakhand; and Hisham Abdo Kahin, Operations Manager and Acting Country Director, World Bank India, on behalf of the World Bank. 🌐



ICR Update

This is a short summary of the Implementation Completion Report (ICR) of a recently-closed World Bank project. The full text of the ICR is available on the Bank's website.

To access this document, go to www.worldbank.org/reference/ and then opt for the Documents & Reports section.

Third Tamil Nadu Urban Development Project



Context

In 2005, with nearly 300 million urban residents, India's cities contributed over 60 percent of GDP and accounted for more than 90 percent of government revenues. Their efficiency had a significant and direct bearing on the country's overall economy. Yet, few cities were able to provide the kind of urban services required on a regular and sustainable basis.

Project Development Objectives

The objective of the Third Tamil Nadu Urban Development Project was to

- strengthen the managerial, financial and technical capabilities of Urban Local Bodies (ULBs);
- mobilize resources and secure sustainable funding sources for urban infrastructure through the Tamil Nadu Urban Development Fund (TNUDF); and
- provide incentives for investments in low-

Third Tamil Nadu Urban Development Project

Approval Date:	5 July, 2005
Closing Date:	31 March, 2014
Total Project Cost	US\$ 410.55 million
Bank Financing:	US\$ 290.87 million
Implementing Agency:	Tamil Nadu Infrastructure Financing Services Ltd. (TNUIFSL), Government of Tamil Nadu
Outcome:	Satisfactory
Risk to Development Outcome:	Moderate
Overall Bank Performance:	Moderately Satisfactory
Overall Borrower Performance:	Satisfactory

income neighborhoods through the use of capital grants.

Achievement of Project Development Objectives

Overall the project directly benefited about 2.3 million people and about 1.7 million indirectly through improved urban services. This included improved access to water supply to about 1.9 million people across 17 ULBs. The per capita supply of water to city residents also increased from 63 liters on an average to about 115 liters, and the frequency of supply increased to daily as against once in 4 to 5 days earlier.

New sewer connections were constructed in nearly 290,000 households benefitting nearly 400,000 city residents. Over 440,000 people in low income neighborhoods benefited from access to improved water supply and sewerage services.

About 1,500 km of city roads were upgraded across 24 ULBs that benefited city residents and seven bus terminals were constructed (with about 210 bus bays modernized) that handled 4,140 buses per day. In Chennai, about 32.5 km of roads were upgraded that improved ridership and reduced travel time by about 20 percent.

New municipal e-governance systems were made operational in 49 newly created ULBs, besides web portals across the rest of 102 ULBs. Training was provided to more than 27,280 persons on urban management, solid waste management, financial accounting etc.

The Tamil Nadu Urban Development Fund (TNUDF) which came into existence under TNUDF II has remained a viable institution that enabled mobilization and raising of resources – around US\$52 million (against

a target of US\$40 million) – for urban infrastructure through non budgetary sources which included bonds and PPPs.

Lessons Learnt

The concept of a state level urban agency such as TNUDF was a good design concept. Through the series of Tamil Nadu Urban Development Projects, TNUDF was able to provide both capacity building as well as financial support to ULBs. However, evolution of such a fund is very much dependent on the process of decentralization.

Calibrating loan period to project complexity/project design. At appraisal, the project period should be calibrated, taking into account project complexity rather than it being standardized to around five years. In this Project, a period of about 5-6 years was clearly an underestimate given the complexity of sewerage sub-projects, land acquisition related issues and ambitious scope that included both a metro city (Chennai) as well as large number of (smaller) participating ULBs.

Land acquisition/availability will remain a key risk factor for urban projects. An approach that worked well in this context under the Chennai urban transport sub-component was adopting a uniform negotiated price for compensation. This enhanced the acceptance of the compensation payments among the affected land owners.

Complex urban sub-sectors. As the project has demonstrated, sectors like sewerage face key challenges. Amongst them is the availability of qualified contractors, timely land availability, uncertain site conditions, and the capacity of ULBs to manage implementation – factors which often lead to delays. Therefore, their planning and implementation require proper assessments, addressing them in designs, costing and making provisions in the bidding documents, and building the capacity of ULBs among others.

Willingness to pay. Users pay when service is assured. The project has demonstrated that users have contributed for a portion of capital through their contribution, and they are ready to connect to the network and pay for the operation and maintenance. 🌐



This is a select listing of recent World Bank publications, working papers, operational documents and other information resources that are now available at the New Delhi Office Public Information Center. Policy Research Working Papers, Project Appraisal Documents, Project Information Documents and other reports can be downloaded in pdf format from 'Documents and Reports' at www.worldbank.org

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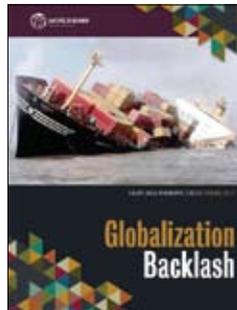
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South Asia Publications

South Asia Economic Focus, Spring 2017: Globalization Backlash



By The World Bank
Available On-line
Published: April 2017
Pages: 254
ISBN (electronic): 978-1-4648-1095-4
DOI: 10.1596/978-1-4648-1095-4

South Asia remains the fastest growing region in

the world. With a strong performance in the eastern part of the region – in particular in Bhutan, Bangladesh and India – the region defied disappointing world growth in 2016. Inflation slowed down in the second half of 2016, mainly due to lower food prices, but appears to be turning up again.

Despite recent real exchange rate appreciation, current account balances are mostly in order throughout the region. After a sharp decline triggered by lower oil prices, remittance inflows are stabilizing in most countries and international reserves are mostly at comfortable levels. Progress on fiscal consolidation has been more gradual and public debt levels remain high. South Asia's performance will maintain momentum, with the gap between its growth rate and that of East Asia slightly widening over time. Regional growth is expected to surpass 7 percent from 2018 onwards.

India: Policy Research Working Papers

WPS 8025

Sustainability of demand responsive approaches to rural water supply: The case of Kerala

By Luis Alberto Andres, Saubhik Deb, Martin P. Gambrell, Elisa Giannone and et.al.

This paper presents the findings of an impact evaluation to assess the performance and sustainability of the demand responsive community-based approach toward

rural water supply in the state of Kerala. To achieve the study's objectives, conceptual definitions of the "performance" and "sustainability" of rural water supply schemes were first developed, as were indicators for their systematic measurement. Performance and sustainability indicators for demand responsive approaches were compared with the more conventional supply-based approach to rural water supply.

The study found that participatory community driven water supply schemes were more successful in delivering adequate, regular, and quality water supply, experienced fewer breakdowns and water shortages, and enjoyed higher consumer satisfaction with the quality of service delivery. The success of the community-based approach demonstrates that people are willing to contribute toward the capital costs of the schemes and pay for the water they use for a better service delivery.

The findings of this paper suggest that the community-based approach can be a superior alternative to traditional supply driven models in expanding and improving water service delivery in rural areas.

WPS 8024

Precarious drop: Reassessing patterns of female labor force participation in India

By Luis Alberto Andres, Basab Dasgupta, George Joseph, Vinoj Abraham and Maria C. Correia

This paper uses successive rounds of National Sample Survey Organization data from 1993-94 to 2011-12, and draws from census data. It provides a description of nearly two decades of patterns and trends in female labor force participation in India; estimates the extent of the recent decline in female labor force participation; and examines and assesses the contribution of various demographic and socioeconomic factors in explaining the female labor force participation decision and the recent drop.

The analysis finds that female labor force participation dropped by 19.6 million women from 2004-05 to 2011-12. Participation declined by 11.4 percent, from 42.6 to 31.2 percent during 1993-94 to 2011-12. Approximately 53 percent of this drop occurred in rural India, among those ages 15 to 24 years. Factors such as educational attainment, socioeconomic status, and household composition largely contributed to the drop, although their effects were more pronounced in rural areas. Specifically, the analysis finds a U-shaped relationship between levels of educational attainment and female labor force participation.

The decomposition of the contribution of these various determinants to the female labor force participation decision suggests that stability in family income, as indicated by the increasing share of regular wage earners and declining share of casual labor in the composition of family labor supply, has led female family members to choose dropping out of the labor force.

The findings of this paper suggest that conventional approaches to increasing female labor force participation (such as education and skills and legal provisions) will be insufficient. Policies should center on promoting the acceptability of female employment and investing in growing economic sectors that are more attractive for female employment.

WPS 8021

Relief from usury: Impact of a community-based microcredit program in rural India

By Vivian Hoffmann, Vijayendra Rao, Vaishnavi Surendra and Upamanyu Datta

Households in rural Bihar were offered low-cost credit through a government-led self-help group program, the rollout of which was randomized at the panchayat level. The intervention led to a dramatic 14.5 percent decline in the use of informal credit, as households substituted to lower-cost self-help group loans. Due to the program, the average rate paid on recent loans fell from 69 to 58 percent per year overall. Rates on informal loans also declined slightly. Among landless households, informal lending rates fell from 65.5 to 63.2 percent, decreasing by 40 percent the gap in rates paid by landless versus landowning households.

Two years after the initiation of the program, significant positive impacts on asset ownership among landless households were apparent. Impacts on various indicators of women's empowerment were mixed, and showed no clear direction when aggregated, nor was there any impact on consumption expenditures.

WPS 8017

Gender-neutral inheritance laws, family structure, and women's status in India

By Sulagna Mookerjee

This paper examines whether economic empowerment of women improves their autonomy within their marital household, and investigates the mechanism, by exploiting variation from a legal reform aimed at improving women's inheritance rights in India. Results suggest that the reform increased women's participation in decision-making but at the expense of the older generation of household members and not at the expense of their husbands. Two channels are proposed to explain this phenomenon. First, this can be driven by a shift in the family structure from traditional joint families to nuclear households. Such a change is consistent both with the increase in women's decision-making authority, which they can exert to move out of the joint household, as well as with men's incentives, since men have weaker financial links with their parents' post-reform. Second, even within joint families, the amendments empowered young couples at the expense of the older generation of household members.

WPS 8015

An employment guarantee as risk insurance? Assessing the effects of the NREGS on agricultural production decisions

By Esther Isabelle Gehrke

Evidence from representative panel data of Andhra Pradesh, India, suggests that the National Rural Employment Guarantee Scheme (NREGS) reduces households' uncertainty about future income streams because it provides employment opportunities in rural areas independently of weather shocks and crop failure. Because the NREGS makes an ex-post labor supply response to agricultural shocks more efficient, households with access to the NREGS can shift their production towards riskier but also more profitable crops. The observed shifts in agricultural production do considerably raise the profitability of agricultural production and hence the incomes of smallholder farmers. The findings are not driven by changes in the labor or cost intensity of those crops, which supports the idea that the causal mechanism underlying the observed changes is indeed an insurance effect.

WPS 8004

The motherhood penalty and female employment in urban India

By Maitreyi B Das and Ieva Zumbayte

Since the 1990s, India has seen robust economic growth, rising wages, steady fertility decline, increased urbanization, and expanded educational attainment for males and females. But unlike other countries that have undergone similar transitions, urban women's employment has refused to budge, never crossing the 25 percent mark. The discussion is situated in the normative construction of motherhood and the gendered nature of caregiving in India.

The analysis uses pooled data from six rounds of the National Sample Surveys to examine the effects of having a young child on mothers' employment in urban India over 1983-2011.

The analysis also looks at household structure, and analyzes the effects of other household members on women's labor supply. The results show that although the onus of childbearing may have reduced, that of caregiving has increased. Having a young child in the home depresses mothers' employment, an inverse relationship that has intensified over time. Further, living in a household with older children and women over the age of 50 is positively associated with women's employment.

WPS 7996

Who should be at the top of bottom-up development? A case study of the national rural livelihoods mission in Rajasthan

By Shareen Joshi and Vijayendra Rao

It is widely acknowledged that top-down support is essential for bottom-up participatory projects to be effectively implemented at scale. However, which level of government, national or sub-national, should be given the responsibility to implement such projects is an open question, with wide variations in practice.

This paper analyzes qualitative and quantitative data from a natural experiment in the state of Rajasthan in India, where a large national flagship project that mobilized women into self-help groups for micro-credit and created a women's network for other development activities was implemented in two different ways. Some sub-regions were given to the state government of Rajasthan to manage, while the Government of India centrally managed other sub-regions.

The study finds that the nature of top-down management had a large bearing on the nature and quality of local-level facilitation. Centrally and locally managed facilitators formed several groups with similar financial performance. But centrally managed facilitators formed groups that were less likely to engage in collective action, be politically active, and engage with other civil society organizations.

These results raise important questions on how responsibilities for participatory development projects should be devolved, and how the nature of management affects the sustainability of bottom-up interventions.

WPS 7995

Deliberative democracy in India

By Ramya Parthasarathy and Vijayendra Rao

This paper traces the evolution of deliberative institutions in India to understand the role of deliberation in democratic life, as well as the ways in which deliberative bodies influence, and are influenced by, entrenched social inequality.

The paper first unpacks the historical roots of Indian deliberation in the pre-colonial and colonial periods, emphasizing the ways in which religious traditions fostered a culture of debate and dialogue. The paper then explores the interplay between Western liberal philosophers, most notably Henry Maine, and Indian political thinkers, including Gandhi and Ambedkar, on participatory democracy in India. The discussion then highlights the continued dialogue between Indian and Western ideas in the push for greater participatory development.

Finally, the paper probes the current incarnation of state-sponsored deliberation in India – namely, village assemblies known as gram sabhas under the constitutionally mandated system of Indian village democracy or Panchayati Raj – and reviews the growing empirical scholarship about these village assemblies.

WPS 7994

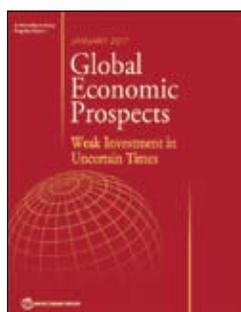
For India's rural poor, growing towns matter more than growing cities

By John Gibson, Gaurav Datt, Rinku Murgai and Martin Ravallion

It is theoretically ambiguous whether growth of cities matters more to the rural poor than growth of towns. This paper empirically examines whether growth of India's secondary towns or big cities mattered more to recent rural poverty reduction, noting that data deficiencies have made this a difficult question to answer previously. Satellite observations of night lights are used to measure urban growth on the extensive and intensive margins in the context of a spatial Durbin fixed-effects model of poverty measures for rural India, calibrated to a panel of 59 regions observed four times over 1993-2012. The expansion of lit area had greater effect on the rural poverty measures than did intensive margin growth in the brightness of light from urban areas. For India's current stage of development, growth of secondary towns may do more to reduce rural poverty than big city growth, although the theoretical model suggests that cities may eventually take over from towns as the drivers of rural poverty reduction.

Other Publications

Global Economic Prospects: Weak Investment in Uncertain Times



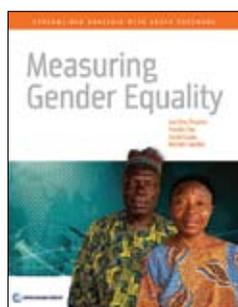
By The World Bank
Available On-line
Published: January 2017
Pages: 254
ISBN (paper): 978-1-4648-1016-9
ISBN (electronic): 978-1-4648-1017-6

Stagnant global trade, subdued investment, and

heightened policy uncertainty marked another difficult year for the world economy. A moderate recovery is expected for 2017, with receding obstacles to activity in commodity-exporting emerging market and developing economies. Weak investment is weighing on medium-term prospects across many emerging market and developing economies. Although fiscal stimulus in major economies, if implemented, may boost global growth above expectations, risks to growth forecasts remain tilted to the downside. Important downside risks stem from heightened policy uncertainty in major economies.

Measuring Gender Equality: Streamlined Analysis with ADePT Software – A Handbook

By Josefina Posadas, Pierella Paci, Zurab Sajaia and Michael Lokshin



Available On-line

Published: March 2017
Pages: 305
ISBN (paper): 978-1-4648-0775-6
ISBN (electronic): 978-1-4648-0776-3

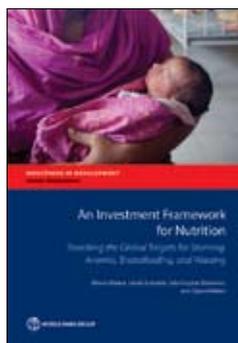
The gender module of the World Bank's ADePT software platform produces

a comprehensive set of tables and graphs using household surveys to help diagnose and analyze the prevailing gender inequalities at the country level and over time.

This book provides a step-by-step guide to the use of the ADePT software and an introduction to its basic economic concepts and econometric methods.

The module is organized around the framework proposed by the *World Development Report 2012: Gender Equality and Development*. It covers gender differences in outcomes in three primary dimensions of gender equality: human capital (or endowments), economic opportunities, and voice and agency. Particular focus is given to the analysis and decomposition techniques that allow for further exploring of gender gaps in economic opportunities.

An Investment Framework for Nutrition: Reaching the Global Targets for Stunting, Anemia, Breastfeeding, and Wasting



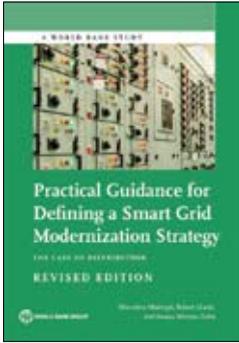
By Meera Shekar, Jakub Kakietek, Julia Dayton Eberwein and Dylan Walters
Available On-line
Published: April 2017
Pages: 248
ISBN: 978-1-4648-1056-5
e-ISBN: 978-1-4648-1057-2

The report estimates the costs, impacts and financing scenarios to achieve the

World Health Assembly global nutrition targets for stunting, anemia in women, exclusive breastfeeding and the scaling up of the treatment of severe wasting among young children. To reach these four targets, the world needs \$70 billion over 10 years to invest in high-impact nutrition-specific interventions. This investment would have enormous benefits: 65 million cases of stunting and 265 million cases of anemia in women would be prevented in 2025 as compared with the 2015 baseline. In addition, at least 91 million more children would be treated for severe wasting and 105 million additional babies would be exclusively breastfed during the first six months of life over 10 years. Altogether, achieving these targets would avert at least 3.7 million child deaths.

Every dollar invested in this package of interventions would yield between \$4 and \$35 in economic returns, making investing in early nutrition one of the best value-for-money development actions.

Practical Guidance for Defining a Smart Grid Modernization Strategy: The Case of Distribution (Revised Edition)

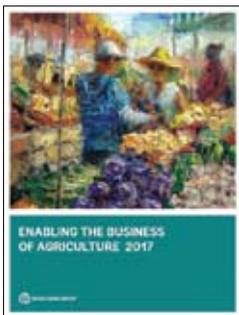


By Marcelino Madrigal, Robert Uluski and Kwawu Mensan Gaba
Available On-line
 Published: March 2017
 Pages: 176
 ISBN: 978-1-4648-1054-1
 e-ISBN: 978-1-4648-1055-8

Practical Guidance for Defining a Smart Grid Modernization Strategy: The

Case of Distribution guides stakeholders on how utilities can define their own smart grid vision, identify priorities, and structure investment plans. While most of these strategic aspects apply to any area of the electricity grid, the book focuses on distribution. The guidance includes key building blocks for modernizing the distribution grid and provides examples of grid modernization projects.

Enabling the Business of Agriculture 2017



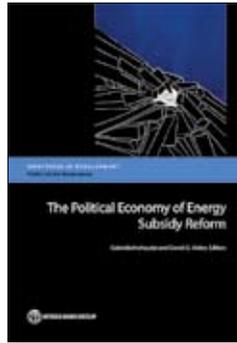
By World Bank
Available On-line
 Published: March 2017
 Pages: 292
 ISBN: 978-1-4648-1021-3

Enabling the Business of Agriculture 2017, the third report in the series, offers insights into how laws and regulations

affect private sector development for agribusinesses, including producer organizations and other agricultural entrepreneurs. Globally comparable data and scored indicators encourage regulations that ensure the safety and quality of agricultural inputs, goods and services but are not too costly or burdensome.

The goal is to facilitate the operation of agribusinesses and allow them to thrive in a socially and environmentally responsible way, enabling them to provide essential agricultural inputs and services to farmers that could increase their productivity and profits. Regional, income-group and country-specific trends and data observations are presented for 62 countries and across 12 topics: seed, fertilizer, machinery, finance, markets, transport, water, ICT, land, livestock, environmental sustainability and gender.

The Political Economy of Energy Subsidy Reform



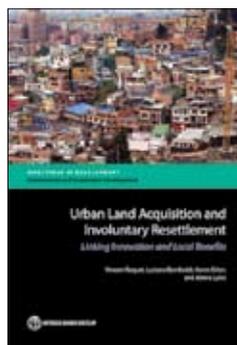
By Gabriela Inchauste and David G. Victor
Available On-line
 Published: March 2017
 Pages: 270
 ISBN: 978-1-4648-1007-7
 e-ISBN: 978-1-4648-1008-4

This book proposes a framework for understanding the political economy of subsidy reform and applies

it to four in-depth country studies covering more than 30 distinct episodes of reform. Among the key lessons that emerge, energy subsidies often follow a life cycle, beginning as a way to stabilize prices and reduce exposure to price volatility for low-income consumers. However, as they grow in size and political power, they become entrenched.

Subsidy reform strategies vary because the underlying political economy problems vary. When benefits are concentrated, satisfying or isolating interest groups with alternative policies is an important condition for effective reform. When benefits are diffuse, it can be much harder to identify and manage the political coalition needed for reform. Governments also vary in their administrative and political capacities to implement difficult energy subsidy reforms and improvements in social protection systems are often critical to the success of reforms because they make it possible to target assistance to those most in need.

Urban Land Acquisition and Involuntary Resettlement: Linking Innovation and Local Benefits



By Vincent Roquet, Luciano Bornholdt, Karen Sirker, and Jelena Lukic
Available On-line
 Published: March 2017;
 Pages: 116
 ISBN: 978-1-4648-0980-4
 e-ISBN: 978-1-4648-0981-1
 SKU: 210980

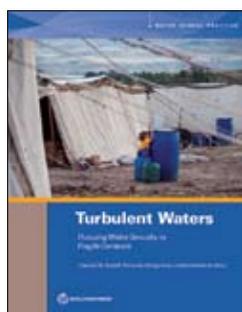
The report illustrates how urban resettlement can

become a development opportunity. The Mumbai example shows how the private sector can play a key role, to unleash the potential created by high-value land to provide sustainable housing solutions to those adversely affected, at no cost to the government or the resettlers.

Examples from Morocco and Pakistan show how well designed and implemented, citizen-driven resettlement can result in enhanced skills and livelihoods, and can promote overall sustainable urban development. The

Mauritania example demonstrates how collective approaches with strong community participation can help address difficult challenges related to housing. The Brazil case shows how resettlement practices with demonstrated, strongly positive outcomes and contributions to urban development can influence governments to incorporate them into their own laws and regulations, helping millions of affected people to benefit from them.

Turbulent Waters: Pursuing Water Security in Fragile Contexts



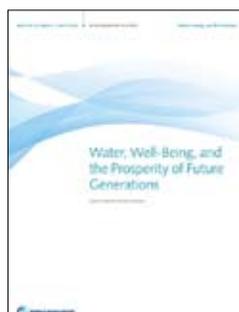
By Claudia W. Sadoff
Edoardo Borgomeo and
Dominick de Waal
Published: March 2017

Water insecurity—ranging from chronic water scarcity to lack of access to safe drinking water and sanitation services, to hydrological uncertainty and extremes

(floods and droughts)—can cause severe disruptions and compound fragilities in social, economic, and environmental systems. Untangling the role of water insecurity in contributing to fragility is difficult, yet it is becoming a fundamental question for water policy worldwide given the scale of the fragility challenge.

This report explores the dynamics between water insecurity and fragility. It suggests that water security is more difficult to achieve in fragile contexts because of a range of factors, including weak institutions and information systems, strained human and financial resources, and degraded infrastructure.

Water, Well-Being, and the Prosperity of Future Generations



By Claire Chase and
Richard Damania
Published: March 2017

Water-related diseases are a major health burden for populations, especially the poor. Meeting global aspirations for poverty reduction will require addressing the global

water and sanitation challenge. This discussion paper provides an overview of the poverty-related impacts of inadequate water supply and sanitation services, and highlights the new policy challenges that have emerged in a more populated, polluted, and urbanized world with finite water resources. New approaches that assure sustained changes in individual behavior, more equitable access to services, and incentives for improved water resource stewardship are needed.

India Project Documents

24x7 – Power for all in Andhra Pradesh

Date 17 March 2017
Project ID P155038
Report No. STEP 1262, 1171, 1144
(Procurement Plan)

2nd Kerala Rural Water Supply and Sanitation Project

Date 10 April 2017
Project ID P121774
Report No. STEP1509, 1177 (Procurement Plan)

Andhra Pradesh and Telangana Municipal Development Project

Date 30 March 2017
Project ID P071250
Report No. STEP1398, 1033 (Procurement Plan)

Assam Inland Water Transport Project

Date 11 April 2017

Project ID P157929
Report No. STEP1531 (Procurement Plan)

Capacity Augmentation of the National Waterway – I

Date 07 April 2017
Project ID P148775
Report No. STEP1494 (Procurement Plan)
PAD1915 (Project Appraisal Document)

Himachal Pradesh Horticulture Development Project

Date 07 April 2017
Project ID P151744
Report No. STEP1497 (Procurement Plan)

Ecosystems Service Improvement Project

Date 15 February 2017
Project ID P133803
Report No. ISDSA 21401(Integrated Safeguards Data Sheet)

Energy Efficiency Scale-Up Program for Results

Date 02 March 2017
 Project ID P162849
 Report No. 113843 (Program Information Document)

Orissa State Roads Project

Date 17 February 2017
 Project ID P096023
 Report No. ICR3903 (Implementation Completion and Results Report)

Tamil Nadu Health Systems Project

Date 27 March 2017
 Project ID P075058
 Report No. ICRR0020395 (Implementation Completion Report Review)

Accelerating Discovery Research to Early Development for Biopharmaceuticals Innovate in India Project

Date 10 April 2017
 Project ID P156241
 Report No. SFG3134 (Environmental Assessment)

Jharkhand Opportunities for Harnessing Rural Growth Project

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 Project ID P158798
 Report No. SFG3026 (Environmental Assessment)
 SFG3017 (Indigenous Peoples Plan)
 STEP1016 (Procurement Plan)

Jhelum and Tawi Flood Recovery Project

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 Report No. STEP1401, 1402, 1204, 1179, 1101, 1102, 945, 942 (Procurement Plan)

Karnataka Multisectoral Nutrition Pilot Project

Date 10 April 2017
 Project ID P149811
 Report No. ISDSR 21611(Integrated Safeguards Data Sheet)

Karnataka Watershed Development Project II

Date 24 April 2017
 Project ID P122486
 Report No. STEP1671, 1541, 1476, 1255, 1066, 952 (Procurement Plan)

Madhya Pradesh Urban Development Project

Date 21 March 2017
 Project ID P149811
 Report No. PAD 1529(Project Appraisal Document)
 STEP1529, 1261, 1235 (Procurement Plan)

National Cyclone Risk Mitigation Project II

Date 24 April 2017
 Project ID P144726
 Report No. STEP1666, 1550, 1549, 1148, 1121, 1103, 1105 (Procurement Plan)

National Ganga River Basin Project

Date 31 March 2017
 Project ID P119085
 Report No. STEP1410, 1019, 1021 (Procurement Plan)

National Groundwater Management Improvement Program Project

Date 01 March 2017
 Project ID P158119
 Report No. 106660 (Environmental Assessment)

National Hydrology Project

Date 21 March 2017
 Project ID P152698
 Report No. PAD 1429 (Project Appraisal Document)
 STEP1226, 1290 (Procurement Plan)

Karnataka Watershed Development Project II

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Skills Strengthening for Industrial Value Enhancement Operation Project

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Report No. 108103 (Project Appraisal Document)

Shared Infrastructure for Solar Parks Project

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Report No. PID 113214 (Project Information Document)
PAD 1659 (Project Appraisal Document)
113387 (Integrated Safeguards Data Sheet)

Tamil Nadu Irrigated Agriculture Modernization Project

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Project ID P158522
Report No. STEP1641, 1343 (Procurement Plan)
SFG 3183 (Environmental Assessment)

Uttar Pradesh Pro-poor Tourism Development Project

Date 21 April 2017
Project ID P158522
Report No. SFG 3098 (Resettlement Plan)
SFG 3101 (Environmental Assessment)

West Bengal Institutional Strengthening of Gram Panchayats Project

Date 23 February 2017
Project ID P159427
Report No. 109424 (Project Appraisal Document)

World Bank Policy Research Working Papers**WPS 8032**

Can public works programs reduce youth crime? Evidence from Papua New Guinea's urban youth employment project

By Oleksiy Ivaschenko, Darian Naidoo, David Locke Newhouse and Sonya M. Sultan

WPS 8031

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By Matthias Cinyabuguma, Djibril Ndoye and Olumide Olusola Taiwo

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Implications of minimum wage increases on labor market dynamics lessons for emerging economies

By Ximena Vanessa Del Carpio and Laura M. Pabon

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By Kimberly Blair Bolch, Lidia Ceriani and Luis-Felipe Lopez-Calva

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By Inna Cintina and Inessa Love

WPS 8027

Heterogeneous technology diffusion and Ricardian trade patterns

By William Robert Kerr

WPS 8026

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By Harold H. Alderman, Jere R. Behrman and Afia Tasneem

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