

Power and Participation Research Centre

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## an angle grinder to a steel tube.

On the cover: Salauddin Engineering Works is a small light engineering unit based in

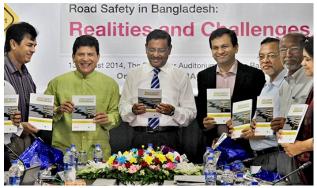
West Panthapath. In the photo, Moinuddin, younger brother of the proprietor, takes

### PPRC events



Speakers at PPRC's national consultation on sustainable hilsha conservation at the Daily Star Conference Hall.

(18 October, 2014)



"Road Safety in Bangladesh: Realities and Challenges"

(BRAC and PPRC launch report, on August 13th, 2014).



"Towards meaningful realization of UHC, Bangladesh: Quality Challenges in Medical Education"

(April 5th, 2014)

## People



Shazia Omar, a popular English author and women empowerment activist/advocacy adviser of SHIREE, came to PPRC to explain the digital tracking of beneficiaries, a new innovation in program monitoring.



Hossain Zillur Rahman meets with representatives from the Bangladesh Bureau of Statistics.



Four delegates of Ecorys dropped by to speak to Hossain Zillur Rahman.

## PPRC News



# Grass-root stakeholders at PPRC Barisal Dialogue

High healthcare costs and poor service quality major barriers to effective poverty alleviation

A cross-section of stakeholders at a district dialogue on Universal health Coverage (UHC) organized by PPRC underscored high health-care costs, irregular access and poor service quality to be major hindrances to effective poverty alleviation and meaningful realization of UHC. PPRC organized the event at the Shere-Bangla Medical College Conference hall on 30 August, 2014 as part of its UHC-focused District Dialogue Series. Participants numbering over one hundred included various representatives of the medical profession – doctors, nurses, health assistants, family welfare volunteers – as well as government health administrators, local government councilors, health rights activists, NGOs, pharmaceutical company representatives, diagnostic centres, electronic and print media. Former health secretary, noted child surgeon from Chittagong medical college and hospital and BRAC representatives also joined at PPRC's invitation. PPRC Chairman introduced the issues and moderated the daylong dialogue. The event was widely covered in the local and national media. Leading national English-language newspaper The Daily Star ran an online opinion poll on the main argument of the dialogue that costly and poor quality healthcare was impeding effective poverty alleviation a day after the dialogue. 67% answered in the affirmative.

#### PPRC team to visit WWF, Kolkata for Joint meeting October 29-31, 2014

A two member PPRC team constituted of consultant member Professor Abdul Wahab of Agricultural University, Mymensingh and Syed Ziauddin Ahmed, Director, Resource Planning will visit partner organization WWF, Kolkata under the IUCN supported Bangladesh-India joint initiative on Eco-systems for life on October 29-31, 2014.

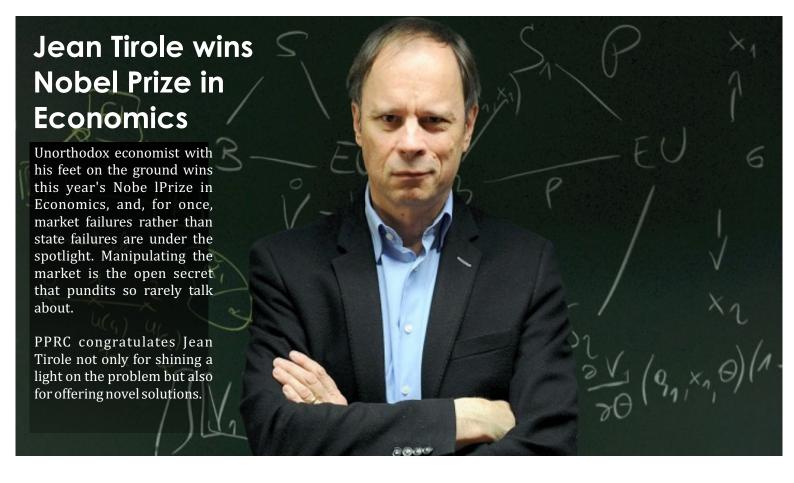


# PPRC Launches Intern Program

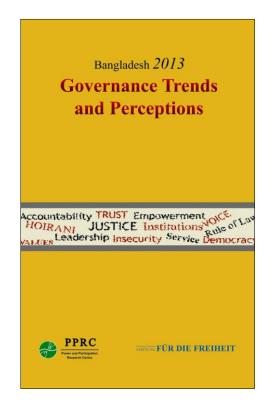
PPRC Launches Intern Program
As part of its outreach aim, PPRC has launched its intern program from
September, 2014. Md. Abu Shaer Reaz and Tanzib Ahsan, both students at the Department of Economics at Dhaka
University, have joined as interns with initial assignment on developing the PPRC Newsletter.

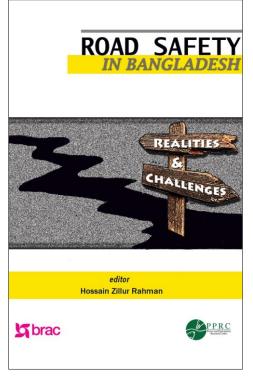
#### PPRC and BBS joint team preparing Dhaka City Report

PPRC and BBS signed a MOU on 17th April, 2012 to prepare an urban data-base to assist more effective urban policy-making for Bangladesh. The first component of this work is the preparation of a report on Dhaka City based a representative survey carried out in late 2012. A joint PPRC-BBS team is currently analyzing the data and preparing the report. The report, first of its kind, is expected to be launched in the first week of December, 2014. The World Bank is supporting this initiative.



#### Our recent publications:





To obtain copies of our publications, please contact the PPRC office at House 77A, Road 12A, Dhanmondi R/A, or call 01552342291 for more details.

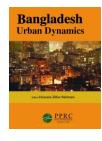
We also stock copies of our older publications. The two articles featured in this issue of our newsletter are from the publication "Bangladesh Urban Dynamics." If you are interested in reading the full articles and much more, please request a copy of the publication.

#### Upcoming and ongoing projects

Our upcoming projects include a report on Dhaka City, as part of PPRC's "Liveable Cities" program, which is due to be launched in December 2014. Prepatory research on health insurance pilot for RMG workers in Gazipur is ongoing. PPRC has also contracted to initiate a study on rendering mainstream the health services for people with disabilities. Follow our quarterly newsletter for updates on ongoing projects.

# Industrial growth and location dynamics

#### M.A. Taslim Akib Khan



The full version of this article was published in "Bangladesh Urban Dynamics", a publication by PPRC, in 2010.

Industrial location has important implications for urbanisation. When a large number of industries locate in a suitable place, entrepreneurs and employees also locate there markedly increasing the population density. In order to provide these people with their various needs other business entities also situate near them. All these people need to be provided with basic civic amenities the provision of which further raises population density and the size of the locality. Thus, we find that all industrial concentrations in Bangladesh are situated in or near major urban centers. Underdeveloped areas are characterized by a lack of industrial growth.



Economic growth of Bangladesh accelerated with liberalization measures introduced in the early 1990s. Manufacturing grew at a modest rate of 7.8% during 2000-1 and 2009-10. Only three industries maintained double-digit growth - RMG, textiles and pharmaceuticals. Iron and steel grew at more than 7% percent. The performance of the rest of the industries is either modest or poor.

An interesting aspect of manufacturing in Bangladesh is that most industries serve mainly the domestics market. Hence, their strength lies in the buoyancy of domestic demand. This might partially explain why the economy did not suffer much from the fallout of the global recession. Only RMG is clearly predominantly export-oriented. A substantial part of textile manufacturing products feed the apparel industry and hence may also be deemed to serve the export market. The importance of the export industries should not be underestimated since RMG and textiles together account for 45% of the income generated by large and medium manufacturing and 32% of the income of the manufacturing sector as a whole.

There are 28 such industries which grew at annual rate of over 5%. Of these, 11 are substantial industries that have more than 1% weight in the industrial production index. Pharmaceuticals and cotton textile, with more than 7% weight in the general index, grew very robustly at nearly 12 percent per year. The highest growth rate was achieved by silk and synthetic industry that grew at a whopping 18.75 percent. Cement industry also grew robustly at over 12 percent. The garments industry achieved a modest growth rate of nearly 8 percent. Leather footwear grew at over 8.5 percent.

Bangladesh is now at the lowest rung of the industrialisation ladder, capitalising on high tariffs and cheap labour to produce basic consumer goods. Progress to higher rungs in the future will require better infrastructure, greater skill and more sophisticated technology. The impressive growth of industries producing electrical and non-electrical machinery, vehicles including oceangoing ships and pharmaceuticals presents opportunities of graduating to the production of more sophisticated goods.

Of the top10 industrial employers, only two are manufacturing industries as defined by BSIC - apparels and rice milling. The top10 industries provide employment to nearly 4 million persons. Manufacturing industries account

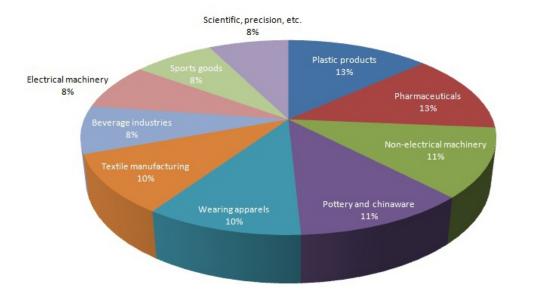


Figure 1

Growth rate by industry (top 10)
(2003)

Plastic products	13.94%
Pharmaceuticals	13.67%
Non-electrical machinery	11.98%
Pottery and chinaware	11.92%
Wearing apparels	10.79%
Textile manufacturing	10.30%
Beverage industries	8.29%
Electrical machinery	8.15%
Sports goods	7.87%
Scientific, precision, etc.	7.80%

"Bangladesh is at the lowest rung of the industrialisation ladder. capitalising on high tariffs and cheap labour to produce basic consumer goods. Progress to higher rungs in the future will require better infrastructure, greater skill and sophisticated technology."

for only 18% of this employment. The other industries belong to the service sector. The four largest service industry employers, viz. grocery and general stores, tea-stalls, activities of religious organizations and tailoring services are mainly very small service production units. They employ on average less than two persons per establishment and are mostly family-runenterprises and informal in character. A major characteristic of the services sector is that it essentially serves the domestic market though some services such as transportation, telecommunication and banking also serve overseas customers.

An analysis of the spatial location of the manufacturing industries shows that the manufacturing establishments are concentrated in four major industrial districts. The remaining 60 districts provide employment to less than a quarter of the total urban manufacturing workforce.

The preponderance of Dhaka in employment generation is an indication of the centralized nature of the country's economic development. Most business related facilities are concentrated in Dhaka and political patronage is also distributed from here. Consequently business enterprises flock to Dhaka in order to improve their bottom line or the chances of survival. Industries appear to have located along a south-north corridor stretching from Chittagong in the south to Mymensing in the north with a gap at old Noakhali district. Localized industrial hubs are also beginning to appear in Sylhet, Bogra, Rangpur, Dinajpur and Jessore.

Concentration of people and industries in urban centers gives rise to significant economies of scale. Agglomeration of industries leads to the growth of demand for various inputs in large quantities. The growth of a large urban centre permits the supply of these inputs at reasonable costs. Many specialized inputs, such as tax consultants, accountants, or specialized technical experts are available only in large towns where they have large enough clientele to sustain them. One important advantage of urban agglomeration is knowledge spillover.

Perhaps the earliest attempt to provide a theoretical explanation of the location of industries is Alfred Weber (1909). He advanced a simple but intuitively appealing hypothesis that industries tend to locate where they can minimize the cost of production. Weber recognized three types of costs: (1) Transport costs (2) Labour costs (3) Agglomeration. For many products, however, labour costs and agglomeration benefits can outweigh transport cost considerations.

The two largest urban areas are Dhaka (including the adjoining districts of Gazipur and Narayanganj) and the port district of Chittagong. Dhaka houses a large variety of industries; it alone accounts for over 10% of both total industrial and manufacturing establishments in the country and 18% of total industrial employment and 28% of manufacturing employment. Gazipur, which is contiguous to Dhaka, has emerged in recent times as a large agglomeration of industries. As Dhaka became congested entrepreneurs had to move outward in search of suitable location for their factories or facilities, and Gazipur provided a convenient alternative. The three urban agglomerations of Gazipur, Naryanganj and Chittagong account for 21.5% of all manufacturing establishments

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and 49.3% of the total manufacturing employment of the country. In terms of gross value addition, highest contributor is Dhaka - 30% of total gross value addition – followed by Gazipur - 22%, Chittagong - 20% and Narayanganj 3%.

The four major industrial districts together account for 61% of manufacturing employment and 75% of



manufacturing value addition. Gazipur is the location of the largest and most productive manufacturing industries. The gross value addition generated by the average establishment in Gazipur is twice as large as that in Chittagong and more than thrice as large as that in Dhaka. The average worker in Gazipur is more than twice as productive as workers in Dhaka and Chittagong. Narayanganj establishments are the smallest and the least productive.

The growth of a manufacturing hub is sometimes also helped by the location decision of pioneering entrepreneurs. Rahim Afrooz, a well-known manufacturing group, is a recent example. A few years ago it set up a large export-oriented battery manufacturing plant in Ishwardi Export Processing Zone where there were few industries. Obviously agglomeration benefits were not high in its consideration to setup the plant there. Nor was transportation costs a consideration since bulk of the output was exported overseas through Chittagong port. Perhaps other factors, such as the price of land, were the main considerations. However, as this manufacturing facility flourishes it will need many inputs and services such as repair and maintenance. These opportunities will attract many new business enterprises to set up their facilities near the battery plant. These enterprises in turn will attract other enterprises to supply their needs. Over time Ishwardi could grow into a regional business agglomeration much like Bogra.

Looking to the future, RMG and its backward-linkage industries will continue to be the principal driver of industrialization in the foreseeable future. Other industries such as pharmaceuticals, plastic products, footwear, electrical goods and shipbuilding are also emerging as fast growing industries. However, the opportunities that are smiling on the country will go begging if the social and physical infrastructures are not quickly improved. Energy and transport difficulties have assumed serious proportions. Legal complexities and bureaucratic hassles are hindering efforts of domestic and foreign entrepreneurs. The paucity of a skilled labour force, especially at the mid-management level, is a constraint that is difficult to overcome. The solution to these problems requires a vigorous pro-active government response that must be buttressed by willing cooperation of the stakeholders.

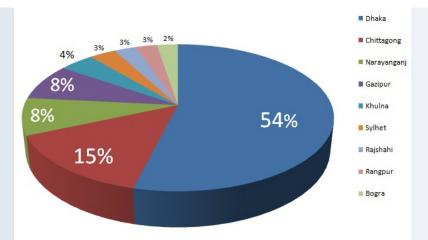


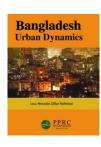
Figure 2 **Spatial distribution of urban employment** (2003)

(ranked by employment, top 10)

#### **Success Stories:**

#### Farida Engineering Works, Bogra

#### Abul Hossain



The full version of this article was published in "Bangladesh Urban Dynamics", a publication by PPRC, in 2010.

The proprietor of Farida Engineering Works - 65 year old Mr. Badal - is one of the leading entrepreneurs who paved the way for agro-based machineries and equipment production and marketing in Bogra. A lifestory approach was adopted to capture the dynamics of his entrepreneurial journey.

1952-1974: With only three years of formal schooling, Mr. Badal joined the leading local industrial enterprise - Bogra Bhandary Cotton and Spinning Mill - in the 1960s at a monthly salary of Taka 15. Mr. Badal honed his skills on the job and by the mid-1960s had gained a good reputation as a competent mechanic. In his own words, "The non-Bengali (Urdu-speaking two engineers) and a Japanese engineer, who were the leading persons of the Mechanical unit, used to like me very much as I was very meticulous in my works. In 1971, the Non-Bengali engineers left the industry. The production declined due to war. After the independence the Industry was nationalized in 1972. Production declined heavily, and in 1975 the 'Bogra Bhandary Cotton and Spinning Mills' was closed down."

1976-1984: Badal became unemployed thereafter and returned to his village in a suburb of Bogra town. Using skills learned at the mill, he began producing spare parts for various machineries using rudimentary tools and gradually built up a local market for his products. By early 1980s, Badal had a sufficiently sizeable business to afford the purchase of 3 lathe machines for Taka 1 lac and shifted his enterprise from his village to rental premises in Bogra town. Naming his industry Farida Engineering Works, he hired four unskilled workers and trained them himself and began making and selling centrifugal pumps as well as various spare parts. His business grew so that he was able to buy a piece of land (1 bigha) for his industry at a cost of Taka 30 lacs.

**1985-1999:** In 1985, he shifted his industry to his own land, and generated employment for about 25 persons. The industry started producing power tiller parts, trolleys, iron wheels, paddy threshers and various agro-based equipment. Badal appeared as an icon for producing agro-equipment and machines within 4/5 years in Bogra.

**2000 till now:** Currently Badal employs a work force of 40 nearly all of whom are skilled workers. His product range has 54 equipment items mostly related to agriculture. These include iron wheel (used for plowing by tractor in monsoon), paddy thresher, harvesting machine, brick splitting machine, mixture machine, and various spare parts of water pumps. The enterprise is very solvent producing 10 pairs of iron wheels per day at a market price of Taka 6000 each. His market reach has transcended the local economy and is now extended to the national market.

From an initial capital of Taka 1 lac invested in 1976, Farida Engineering Works' current capital stands at Taka 12 million (excluding land). Wholly owned by Mr. Badal, the enterprise relies on self-finance rather than bank finance. The enterprise employs 40 skilled workers, all local and all male. 30% of the workers reside in the factory compound. The enterprise uses as its raw materials scrap iron, recycled diesel engines; these are sourced from Chittagong and local markets. Energy is not a big problem for the enterprise; it uses both grid electricity as well own generators. The enterprise has trade license, environmental certificate, TIN and insurance, export license.

The Executive Chairman of PPRC, Hossain Zillur Rahman, is also the Chairman of Dhaka University Economics Department Alumni Association, and in this capacity, would like to invite entries to the DUEDAA 2014 Essay Competition. Details are as follows.

#### DUEDAA ESSAY COMPETITION 2014

# HOW IMPORTANT IS SOCIAL DEVELOPMENT FOR ECONOMIC GROWTH?

**2500 WORDS** 

SUBMISSION DEADLINE (REVISED): 15 DECEMBER 2014

AGE LIMIT: 30 YEARS

LANGUAGE: BANGLA/ENGLISH

#### **PRIZES**

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Online submission: essay2014@duedaa.org

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Dhaka University Economics Department Alumni Association (DUEDAA)