

The Asian University for Women Catalyst for a Chittagong renaissance?

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WHEN on January 13, 2004 the news broke that Chittagong would host the Asian University for Women (AUW), I was elated for two inter-related reasons: the project will be built in my hometown with the participation of my alma mater, the Massachusetts Institute of Technology (MIT), as design consultant. Why should it not be a moment of double delight? The exciting expectation is that AUW will reinvigorate the national as well as local economy, bolster the country's job market, and make 21st-century education accessible to women of Asia. In addition the prestigious project could be a catalyst for raising the awareness of Chittagong's cultural and built heritage as well as its spectacular natural setting around land, water, and hills. That the AUW leadership has culled Chittagong from other possible locations in Asia as the site for the anticipated Asian citadel of women's education is itself an homage to the Port City's natural grandeur.

As an alumnus I am delighted to have direct access to the MIT planning team, thereby able to see the development of the project's master plan. Recently I talked with Professors Stanford Anderson and Ann Pendleton-Jullian, MIT Architecture's head and the AUW project coordinator, respectively, about the future University's approach to campus design and the crucial task of contextualising it within the larger cityscape. But before I delve into these issues, let us look briefly at AUW as an institution of learning.

The University, slated for inauguration in 2006, was conceptualised as an inter-Asian institute of higher learning, "committed to serving women in Asia from all religious, ethnic and socioeconomic backgrounds, with a particular focus on women from marginalised and underserved communities." It aims

at providing "unparalleled opportunities for women to become leaders in emerging fields including: Information Technology, Environmental Engineering and Sustainable Development, Management, Education and Public Policy." One of the key leaders of the project is Mary Robinson, President of the World Council of Women Leaders, Chancellor of Dublin University, and former President of Ireland. Robinson poignantly articulated the AUW mission: "The plight of Afghan women and girls is a reminder of the fundamental role education plays both as a human right in itself and as an indispensable means of realising other rights. Increased access to higher education will help empower Asian women to take an active part in the elimination of gender discrimination... Bangladesh has been making great efforts to eliminate discrimination against women, so it is only fitting that the University will be established there."

Kamal Ahmad, an indefatigable Bangladeshi-born corporate lawyer currently with the Asian Development Bank, has been instrumental in conceiving the idea of AUW. The project's leadership and supporters represent a global spectrum: Madame Lone Dybkjaer, Member of the European Parliament, former First Lady and Minister of Environment of Denmark; Jacques Attali, former president of the European Bank for Reconstruction and Development and National Security Advisor to President Francois Mitterrand of France; Sang Chang, Former Prime Minister of the Republic of Korea; Mark Malloch Brown, Administrator of the United Nations Development Programme; Mamphela Ramphele, Managing Director at the World Bank and former Vice Chancellor of the University of Cape Town, South Africa; and George Soros, President and Chairman of Soros Fund Management LLC and the Chairman of the Open Society Institute. Financial support has been committed by, among others, the U.S.

Agency for International Development, Open Society Institute, Citigroup Foundation, Andrew W. Mellon Foundation, and William and Flora Hewlett Foundation.

The cornerstone of AUW's pedagogy will be an innovative five-year joint undergraduate/graduate programme combining a liberal arts and science foundation with professional training. The Imperial College in London and Aalborg University in Denmark are collaborating in developing AUW's curricula. Although the peak student population will be in the vicinity of 2500 (25% from Bangladesh), the focus will be not on numbers, but on the quality of edu-

University promises to make the most positive impact, geographic accessibility, a pleasant and livable physical environment, and a location that would facilitate the University to function autonomously. The country's political situation might have been a thorny issue during many deliberations in Europe and the United States (Wellesley College in Massachusetts hosted an international conference on AUW in November 2002). But in the end Bangladesh emerged triumphantly as the host country for AUW, with Chittagong the chosen site.

I grew up in this coastal city, knew this shahor's hilly rhythm firsthand, and, more specifically, spent six

visit. In short, if AUW's establishment in Chittagong is a watershed moment for the city's legacy, then it should be exploited as nothing less than an occasion to inspire a Chittagong Renaissance, buttressed and directed not by narrow regional aspirations, but by a national consortium of experts from all fields. Let us forget, AUW will reposition Chittagong on the world map along the global coordinates of education, finance, and politics. Hence the Port City must brace for the prospects of international attention through a concerted effort of self-rediscovery and redevelopment.

MIT's involvement with the AUW project is, as of now, primarily aca-

The marriage of a sensible master plan for the city and a historically sound preservationist approach is the least we could implement in Chittagong. The projected arrival of AUW to Chittagong should be the impetus for this urgent task because, among other reasons, as a host city to a world-class institution it must become a modern city fitted with adequate infrastructure and other essential urban amenities, and perhaps most of all should pave the way for a long overdue Chittagong renaissance.

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boyhood years at Faujdarhat Cadet College, not far from AUW's projected site. I could not help but secretly entertain myself with a sweetly tendentious loyalty to my hometown. It was welcome news, I confess. But what I would like to suggest here is that this triumphant moment should not be left locked away like a sacred gift, wrapped in self-referential conceit. In other words, the significance of this selection should not just be limited to a collective sigh of self-satisfaction on the part of the people from the banks of Kamafuli, the river that animates Chittagong's romantic folklore. Quite the contrary. The moment should be an occasion for rediscovering the city and for critically reflecting on the factors -- historical, social, cultural, and geographical -- that once made this city a desirable place to live, a place for thriving commerce, and a coveted destination to

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I have seen these planning marvels, which fuse topography and architecture into a harmonious visual and spatial experience. It is to be seen how the lessons drawn from these great examples inform and enrich the design efforts of the young minds at MIT and RISD. The challenge of designing the project lies in the need to make it functional, while ensuring its institutional autonomy; livable for an international community; secured, yet accessible; topography-friendly and responsive to local history and material, yet suggestive of a timeless environment of learning. It has to be conceived of not as a self-engrossed utopia (then it would only produce an elitist subculture), but rather as an inspirational place both for future women leaders in their bid to reach out to their communities as well as (even if

indirectly) for the people entrusted with preserving and showcasing the built and natural heritage of Chittagong. I expect the latter to be an important corollary of AUW's coming to the Port City.

The environmental carnage wrought on Chittagong has been an ongoing process for over a decade. The rows of panoramic hills that wrap this coastal city have been systematically leveled, often with official licence and with the absurd misconception that hilly landscape is unsuitable for strong buildings! Entire hills were carted off to fill up water bodies or reclaim new lands or to meet the burgeoning building industry's demand for sand. Chittagong's topography is unique in the country, and its myth is deeply entwined with a fabled hill: Cheragi Pahar at the intersection of Momin Road and Jamal Khan Road. Legend has it that more than six hundred years ago Hazrat Badar Aawliya arrived in this city from the seas and chose Cheragi Pahar as his vantage point to spread the message of Islam among the locals. It was at the apex of this hill that the pious messenger lit a "chati" (lamp) and called out (ajaaan) for people to join him in saying prayer to God. Chittagong's etymology can then be traced unmistakably back to "chati." And the hills are at the core of Chittagong's mythology.

The Port City's unique geography has long been subjected to misguided strategies of so-called development and urban sprawl. One glaring example of what could be called "wilful urban devastation" is found at the very heart of the city; the gently-sloping green field in front of the Circuit House -- an open prairie that had allowed the historical build-

ing a magnificent and expansive foreground -- has been gobbled up to cram a "shishu park" for reasons that defy common sense. Are not green open spaces like the city's lungs -- vital urban organisms that allow people to breathe fresh air and escape, even if momentarily, the infernal city life? During my last visit to Chittagong, I was thunderstruck to see that an entire hill near the Chittagong Medical College Student's Hostel had vanished along with the beautiful colonial-era houses perched at its summit and sides. One of Chittagong's commercial hubs, Andorkilla, a historic district with over four hundred years of continuous development, is in a desperate need of preservation. The city boasts many colonial-era masterpieces, including the Central Railway Building that withstood the 1971 aerial bombing but sadly not, it seems, accelerated aging due to the lack of maintenance and a proper preservation policy.

But this lack, more generally, is symptomatic of Chittagong. The marriage of a sensible master plan for the city and a historically sound preservationist approach is the least we could implement in Chittagong. The projected arrival of AUW to Chittagong should be the impetus for this urgent task because, among other reasons, as a host city to a world-class institution it must become a modern city fitted with adequate infrastructure and other essential urban amenities, and perhaps most of all should pave the way for a long overdue Chittagong renaissance.

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Planning future irrigated agriculture Perspective water sharing

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LIKE many other Asian countries, farmers in Bangladesh are among the poorest and food insecure population. Seventy five percent of the Bangladesh's populations are directly or indirectly dependent on the agriculture. In 1999-00 a total of 4.03 million ha was under irrigated agriculture compared to only 0.49 million ha in 1970. Out of 7.6 million ha of irrigable land about 4.3 million ha are presently under irrigation, 70 percent of which is served by tube wells technology and the rest is by surface water irrigation schemes. Agriculture is still contributing about 60% employment opportunities of rural population. The draft National Water Management Plan estimates of irrigation expansion forecast a virtual saturation by 2025. About 5.3 million ha of land already have some form of flood protection. It is envisaged to increase controlled flood area and increase irrigation facilities through surface water projects by 0.70 million ha and 0.30 million ha respectively in the next five years. Groundwater resources are fast depleting due to its over exploitation in the dry season irrigation. Arsenic contamination of the shallow aquifer has set back past

successes in bringing safe drinking water supply to the rural population in particular. It has also raised a concern regarding the use of groundwater sources for the continued development of agricultural produce in the country. Large portion of this country seemingly to continue to remain in poverty, if the agriculture sector does not get the critical source of nourishment i.e. irrigation water. Irrigated agriculture is because a powerful medium for the economic development.

Irrigation development and

Sharing water of the irrigation source is directly linked with the irrigated agriculture that guarantees the farmers for their initiatives and investments. Integrated basin wide development and management of water resources is undoubtedly the major option for future development of the Ganges, the Bharamaputra and the Meghna basin to cater for all the needs. Firm political commitment from the governments of China, India, Nepal, Bhutan and Bangladesh is required to undertake joint actions towards the integrated approach in the water resources management in the region.

management in Bangladesh, as the lower riparian country, is closely interlinked with and largely dependent on 57 transboundary rivers having shared basins with the neighboring countries. The non-negotiation treaties between Bangladesh and neighboring coun-

try for international water courses over the decades remain weak for lack of water allocation, poor water quality provision, lack of monitoring/enforcement/conflict resolution mechanisms and failure to include all riparian states. The water sharing agreement/ treaty between the Govt. of Bangladesh and the Govt. of India in assessing their relative merits in terms of the dry season water availability in Bangladesh has been so found that the dry season flow at Hardinge Bridge has dropped significantly after commis-

on the discharge entering into the Gorai from the Ganges on a monthly basis before 1975 and thereafter showed that significant reduction of discharge has taken place in the Gorai especially during January-March period. Before 1975, percent of discharge entering into the Gorai was (during January-March) some 8-12% of the Ganges discharge. This gradually further shrank and reduced to about 0.15% during the last few years for the same period; necessitating dredging of the river with little increase in flow in the recent time. Dry season flows had

Bangladesh covering almost 20% of country's area equaling 30,000 sq. km inhabited by about 30 million people.

Similarly, the use of Teesta River water for irrigated agriculture had been conceived back in 1935 and rolled down till the Govt. of Bangladesh and the Govt. of India in its 25th meeting of the Joint Rivers Commission on 20 July, 1983 reached an adhoc allocation agreement according to which India was to get 39 percent, Bangladesh 36 percent and remaining 25 percent was to be reserved for reallocation

(GBM) region is endowed with huge water and natural resources that contains almost 40% of the world's poor. A rationalized utilization of these water and other resources of the region in integrated manner and coordinated approach may substantiate the regional economic growth and reduce poverty while the water transfer schemes will monster all the past achievements of Bangladesh in water sector and planning future irrigated agriculture including other water dependent / related development efforts.

The discussion indicates that water sharing has a significant role in water resources management as a whole and thus forth sourcing water, in particular, for irrigated agriculture. Sharing water of the irrigation source is directly linked with the irrigated agriculture that guarantees the farmers for their initiatives and investments. Integrated basin wide development and management of water resources is undoubtedly the major option for future development of the Ganges, the Bharamaputra and the Meghna basin to cater for all the needs. Firm political commitment from the governments of China, India, Nepal, Bhutan and Bangladesh is required to undertake joint actions towards the integrated approach in the water resources management in the region. All the water needs for environmental protection, economic uses, energy generation, navigation, food security through irrigated agriculture and aquaculture, safe water supply and sanitation in the region could have met and millions of poverty-stricken population in the region would have enjoyed a better life if we working together to foster close and meaningful cooperation amongst the countries of the region. Meanwhile, the national level water professionals with supports from policy makers are required to scour into the different potentials for protecting the nation's interest in planning future irrigated agriculture in Bangladesh.

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sioning of Farakka Barrage in India with a sharp declining trend in the flow reaching Hardinge Bridge since 1975; the year of upstream withdrawal. The actual post Farakka flow from 1975 to 2003 has been found to be less than the simulated flows as per the 1977 Agreement and the 1996 Treaty.

A study revealed that the lowest average monthly discharge of the Ganges was found to be 316 m³/s in March 1993 against the pre-diversion average monthly discharge of 2213 m³/s for the same month. During the year 1992-93, the lowest average monthly discharge was found 544 m³/s in February 1993 against the pre-diversion monthly average of 2519 m³/s for the same month and again 430 m³/s against 2008 m³/s in April 1993. It is also observed that due to diversion minimum discharge has reduced to as low as 270 m³/s in April 1993 as against a minimum discharge of 2081 in April 1974. The water level has also been recorded as low as 4.22 meter in April 1993 as against a minimum value of 6.70 meter in March 1974. Another analysis undertaken to compare discharges in various years at Hardinge bridge utilizing 1956 to 1987 further revealed that the averages of the highest annual discharge (August-September) before and after 1975 are 46998 m³/s and 55570 m³/s respectively. On the other hand the averages of the lowest discharge (March-April) before and after 1975 were found to be 2006 m³/s and 809 m³/s respectively. This showed that average peak discharge has increased by about 12% compared to average peak flow before 1975. On the same basis the average annual low flow had decreased by 60%. Similar result has been reported by FAP-4 studies (FPCCO 1993). The average post-diversion flow will decrease even more unless the sharp declining trends reversed.

Consequently, dry season flow of the Gorai, major distributaries of the Ganges, has also been seriously affected due to low flow in the Ganges since diversion by Farakka Barrage. Due to reduction of flow in the Ganges during lean flow season, the Gorai is gradually silting up at the off take. An analysis conducted

been cut off completely by 1992 and has it been possible to partly restore only through substantial dredging in 1998.

The Ganges by itself is noted for massive discharge and sediment load. Changes in flow and sediment load have induced sediment deposition in the reach within the territorial boundary of Bangladesh. Sedimentation as high as 3 meter at some places has been found. The sediment flow in the Ganges showed a decreasing trend. The excessive lowering of the discharge due to upstream diversion during low flow season has reduced the depth of flow hampering navigation and accelerated the silting up of the bed. The hydraulic geometry of the river has undergone significant changes creating problems in the distribution of sediment load. As a consequence, the shifting character and meander parameters has also changed.

The Ganges-Kobadak Irrigation Project widely known as 'GK Project' conceived in the early nineteen hundred fifties pioneered the modern irrigated agriculture in Bangladesh. It is the largest lift-cum-gravity irrigation system located in the southwestern part of the country and was taken up for implementation in 1954. Net irrigable area is about 125,000 ha. Phase-I consisting of about 42,000 ha was implemented during 1954-70 and Phase-II covering an area of about 83,000 ha was completed during 1969-83. At least a 4.5 meter high water flow in the river is required to keep 3 big and 12 small pumps of the project operative, but water in the river flowing far below the minimum required level with silted up intake canal bed has been seriously impeding sourcing the irrigation. The water shortage is being augmented by installation of about 10,385 shallow tubewells abstracting the groundwater within the project area.

Withdrawal of Ganges water during the dry months resulted serious adverse effects on environment, agriculture, industries, fisheries, navigation, river regime, salinity contamination in the surface and groundwater etc. in the southwestern and western areas of

later, after further study. Without having this agreement in place, the amount of dry season waters on Bangladesh side gradually decreased and ended up in getting only 59 m³/s in January 1999. The dry season water flow now varied from 22 to 34 m³/s in January 2001 against the requirement of 227 m³/s to irrigate 540,000 ha. of irrigable land. During dry season every year, the barrage at Gojoldoba at the upstream in India is kept closed for diverting the water to Mohanonda River for irrigation. This has turned the mighty river Teesta into a virtual streamlet causing emergence of numerous shoals bringing changes in its hydraulic characteristics. The riverbeds of Teesta have turned into crop lands. The unilateral withdrawal of water from Teesta River at the upstream has been causing havoc in its basin in Teesta project area, severely affecting the ecology and economy.

Between 1984-95, share of agriculture to GDP declined from 41.77 percent to 32.77 percent while the share of the manufacturing and services sectors went up. The composition of GDP on agriculture has further declined to 21.9 percent in 2002 from 50 percent in 1970 resulting corresponding reduction in rural labor employment in agriculture. The eco-migration of agricultural labor at this point of declining share is of concern. At this point the Indian River Linking Plan aims to connect 30 rivers in the country for diverting water from surplus river basins to water-deficient areas. The basin transfer of river waters will affect Bangladesh in terms of lower availability in the downstream, which is pivotal to planning future irrigated agriculture in Bangladesh.

The first Earth Summit in Rio in 1992 where 180 countries agreed on a broad framework known as Agenda-21, for eradicating poverty and achieving sustainable development. The second Earth Summit in Johannesburg in 2002 came out with plan of implementation for integrated water resources management for eradication of poverty and protecting the world's environment needs. At this backdrop it is necessary to bring in mind that the Ganges - Bhrohmputra - Meghna