

## Asia's Water Crisis



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Written by Philip Bowring

Tuesday, 18 August 2009

Another contributor to poverty looms

Asia faces a water usage crisis which, if not addressed urgently, will cause food shortages and sharply higher prices in the not too distant future. That is the conclusion of a study being published this week by the **International Water Management Institute** in conjunction with the Asian Development Bank and the UN Food and Agriculture Organization. And that, says the report, is without taking account of the impact of climate change on rainfall patterns.



However, the politically-correct report shies away from discussing what could be the most important single issue other than climate change affecting water for agriculture in both South and Southeast Asia -- whether China uses its control of the Tibetan plateau to siphon off for its own use water flowing into the rivers which are the agricultural lifeblood of Bangladesh, Vietnam, Cambodia, Burma, Thailand and a big part of northern India: Mekong, Salween, Irrawaddy, Brahmaputra and Ganges.

The additional problem is that the glaciers of the Himalayas, which provide precious water to the region, are receding under the pressure of global warming and may well be gone completely by 2035, according to a recent report by the US Senate Foreign Relations Committee. "The nexus of China, India, Bangladesh and Pakistan is going to become the critical area where climate change, if unmitigated, will have extremely destabilizing effects," the report says.

The **International Water Management Institute** report notes the decline in recent years in the effectiveness of large-scale irrigation schemes due to mismanagement, salination, poor maintenance, inadequate funding and an ideological preference for private-sector participation. Rehabilitation schemes have had mixed results. On the other hand there has been a continuing surge in irrigation efforts by individual farmers using diesel and electric pumps to obtain groundwater.

The problem is that this is leading in many places, most notably on the north China plain but also in parts of India, to an alarming rate of groundwater depletion. With cereal demand likely to continue to grow even in an East Asia where population growth has slowed dramatically, rising incomes will sustain an increase in demand for cereals for livestock and dairy production.

The challenges are twofold: Firstly to keep production rising in line with increased demand without using more land – uncultivated land is very scarce and urbanization is cutting into the amount of cultivated land.

The report suggests that South Asia must increase output by 100 percent by the year 2050. In principal that should be possible because of the current low level of yields in the region – 2.7 tonnes now which should rise to 5.4 tonnes by 2050. cereals But even if it proves feasible double productivity to four tonnes, it will, even with the best management, increase agricultural demand for water.

As it is, Indian policies are having skewed results. Groundwater is being used profligately in dry western and northwest India because of very cheap rural electricity while being under-used in less-developed eastern India, where groundwater is plentiful but farmers mostly have to rely more on diesel pumps which are far more costly to operate.

East Asia's challenges are rather different as productivity has less room to improve but water availability will stagnate or fall, even without taking account of the demands of industry and urbanization. Southeast Asia falls between south and east Asia in terms of productivity potential but may face particular hazards from the increasing incidence of El Nino events, linked to climate change, as well as the future of river flows from China.

China already is implanting schemes to divert water from its eastward flowing rivers to parched northern China. These do not impact other countries – though they may simply put off the day of reckoning for ground water over-use. But plans for dams on the upper reaches of the Mekong for power and irrigation purposes are a threat to the water supply of downstream states.

Central Asia meanwhile is trying to cope with the fact that Soviet-era irrigation systems were designed for a few huge farms and are ill adapted to either the trend to small farms or weaker central government.

Of course there are ways that Asia can help feed itself in future. One, mentioned in the report, is investing in modern agriculture in underdeveloped regions – such as Korea's Daewoo is supposed to be undertaking in Madagascar. Another might be to discourage the shift to meat-eating, or use of cereal crops which are less water-intensive than rice. In some countries, such as the southern Philippines, rice has replaced corn as the traditional staple, But these are either controversial or politically difficult to implement.

The bottom line is that though Asia has been reasonably successful in raising food output through a mix of irrigation, new varieties and fertiliser, additional gains will demand improved and more sustainable techniques. In turn that means more effort and money from governments, more attention to medium-scale surface irrigation systems, and pricing systems which reflect the value of water to the farmer.

Quite apart from the strategic issues involved, the report notes that irrigation is one of the most effective ways of reducing poverty, which is mostly a rural phenomenon. With half of Asia's population still likely to be rural by 2025 that alone is good reason to re-focus on the issue of sustainable irrigation.


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### **Desalination**

written by Dynas Tee , August 19, 2009

Desalination may be the answer for the Asian city dwellers. For agriculture, there is a need to shift to less water dependent crops.

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<http://www.uspvp.org>

written by John Francis Lee , August 18, 2009

The Mekong seems no longer to be a free-flowing river, but a tap turned on and off by the PRC. It's terrifying to contemplate the coming century of Chinese hegemony.

As an American living in Thailand I now understand what the Mexicans must feel when the USA pumps saline, selenium-polluted water out of the desert in California into the otherwise dry bed of the once might Colorado river to "fulfill" it's treaty obligation to leave some water in the river for the Mexicans.

It's coming to that now in Southeast Asia, although I don't think there's been even a theoretical acceptance of the fact by the Han that the Mekong "belongs" to the non-Han people who have been living along it and relying upon it for their livelihood for thousands of years in what are now the PRC, Burma, Lao, Thailand, Cambodia and Vietnam. It all belongs to the Han now, or so they figure.

What are you going to do about, huh? Not much I'm afraid. Might makes "right" whether its dealt by the USA or the PRC.

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### **Something needs to be done!**

written by Sukriti , August 18, 2009

Yes I agree with you.. Something needs to be done on this issue otherwise more and more people would be pushed down into poverty in Asia and agriculture industry would also be under threat..

India is already going through a draught and if better irrigation techniques are not introduced then it would hardly hit the farmers.

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