Of sheep and men

Koïchiro Matsuura

DOLLY is dead. The most famous sheep in the world, also the first mammal to be cloned from an adult cell, was put down in February of this year. This happened shortly after the birth of a cloned baby was announced to the public, though never verified. Dolly's death created less of a sensation than her birth. However, even if the exact causes of this death have yet to be ascertained, it clearly raises the question of the long-term effects of cloning on the cloned organism. And in a way it grants human beings some respite. The codes governing medical research forbid the experimentation on human beings of a process whose safety and efficiency have not vet been proved through animal testing. But what will be the outcome when the technical barrier has been lifted, and when the argument of sanitary precaution no longer applies? Before it even materializes, the perspective of human cloning confronts us and our social awareness with a major ethical, cultural, and political challenge. The organisation of which I am the Director-General, at the time of the tenth anniversary of the International Bioethics Committee (ICB) of UNESCO, will continue to take an active role in debates and initiatives concerning this question.

The complexity of the issue cannot be dismissed. As far as bioethics, and cloning in particular, are concerned, we need to make sure that the fears and fictions of fantasy do not interfere with relevant questions. Human cloning, in the present day, refers to two technical procedures which differ both in purpose and in practice. The aim of therapeutic cloning is not to arrive at the birth of an individual, but to retrieve stem cells from an embryo created by cell nuclear replacement. It is generally understood that the use of these stem cells could transform regenerative medicine. Then why hesitate? What we have at stake is the status of the embryo

and around this question hopes and reservations cluster and clash. Are we running the risk of turning human embryos into the supermarket stalls of future organ sales? Is it legitimate to create embryos whose development will never be brought to completion? And who will provide the countless ovules required by these manipulations? Would this not lead to a new form of commodification of the female body -- particularly in the case of poorer women? These questions can only be solved through the creation of a strict legal framework for human embryo research, and in order to reach that point there is still a need for further

disastrous psychological and social consequences of such a form of Nature provides each individual with a unique genetic identity, the result of the interplay of fortune and necessity. Giving up this natural wealth could eventually lead us as far as an artificial genetic divide between humans with original genomes and humans with cloned

and examine the motives which are

behind such a project, and the

underlying vision of the human race

and of society. This type of manipu-

lation would consider clones as

carriers for a particular genome,

chosen for its specific qualities. It would not be difficult to imagine the

Humans cannot be made to order, be it an ideal genetic order...Man is not just any mammal. Animals can be reproduced through cloning. But humans are shaped by education, science and culture. Not by cloning.

The aim of reproductive cloning, on the other hand, is to enable the birth of a child who would be a chromosomic replica of another individual. But cloning an organism is not the same as copying a person. There is evidence of this in the mechanisms of natural sexual reproduction. Real twins, for instance, are unmistakeably different individuals, but still, they are more similar to each other than two clones would be. Those who associate cloning with the realisation of age-old myths of immortality or resurrection, in an impossible search for copies of themselves or of others, are using representations of genetics which are both mistaken and dangerous. Once we are rid of the illusion of an all-encompassing genome, what is left us? Human clones would certainly not be monsters; they could, however, reject the normative project that commanded their birth. This is why we must investigate further upstream,

ones. Doesn't humanity already suffer from enough forms of discrimination? The idea of human cloning. at its best, rests on a series of misunderstandings and fantasies: at its worst, it hinges on the desire to utilise genetics for purposes that are decidedly questionable -- whether they be commercial, ideological, or practical. The idea of a ban on human cloning is therefore justified on all levels, medical, legal and moral. This ban, first recommended in the Universal Declaration on the Human Genome and Human Rights adopted by UNESCO in 1997, and then endorsed by the General Assembly of the United Nations in 1998, is irrevocable.

In examining the stakes of bioethics we find ourselves confronted with a question that reaches deep into the cultural, philosophical and spiritual groundings of different human communities. Reconcilina the respect of this cultural diversity with a pragmatic approach towards

scientific progress is a preliminary condition for any joint research in the area of bioethics. This is the spirit in which we are currently working on a declaration on genetic data, since the use of such data -- if not properly managed -- could give rise to new forms of discrimination. and even terrifying denials of human rights. We are also asked -- yet another challenge! -- to devise a universal working tool for bioethics. This confirms that UNESCO can be the appropriate forum for cultures. worldviews, and religious beliefs to interact and reach an agreement on an ethical framework which may serve as a common point of refer-

Humans cannot be made to order, be it an ideal genetic order. UNESCO has acknowledged the importance of a challenge that reaches further than any national frame of reference and requires an active involvement on the part of scientific, political and economic players. It was the first intergovernmental organisation to propose a consistent programme addressing these questions -- with the creation of the IBC, followed a year later by that of the Intergovernmental Bioethics Committee. Ethics of science and technology is effectively one of the priorities of UNESCO, which is currently reinforcing its watch function and its foresight activity. One outcome of this is the choice of focus for the 21st Century Talks, organised by Jérôme Bindé in Paris on the 10th of September 2003: the difficult and urgent question "Should human cloning be banned?" In the case of human cloning, for the first time, ethical reflection has a chance to precede and guide technological development, providing there is a will to do so

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Koïchiro Matsuura is Director General of

TLM burial well-deserved ... But have lessons been learned?

N a press briefing on 7 September, Prof. Jahanara Begum, Adviser to the Prime Minister for Primary and Mass Education announced the decision to discontinue the Total Literacy Movement (TLM). This "movement." launched five years ago, has so far claimed Taka 400 crores of public funds and was defended by both the present and the previous governments. It is a well-deserved burial that has not come too soon. But have the essons been learned for planning and managing basic, literacy and continuing education from this experience, because the national goals regarding Education for All still remain a distant dream?

TLM did not fulfil its promise because of the way it was designed -- a government administration-run campaign to offer courses of six months to teach rudiments of literacy and ordering every one to attend. Even the modest goal, which many would argue as not functionally useful, was not achieved because of pervasive corruption and mismanagement. NGOs who had long experience in and commitment to education were not allowed to participate in TLM.

Education Watch (EW) 2002 study on the state of literacy in the country found that the modest progress that has actually been made in adult literacy has been mainly the contribution of primary education. Most adults did have some exposure to primary level

TLM has been axed, but the inconsistency and irony of continuing to defend the proclaimed achievements of TLM in rapid increases in the literacy rate in the course of five years have escaped the officials of the Ministry of Primary and Mass Education. They continue to stick to the numbers announced earlier (conceding a slight reduction from previous numbers in the rate being mentioned recently).

education and many of them also participated in TLM or other adult literacy activities. In cases where a learner depended exclusively on TLM. there was negligible gain in literacy, according to the EW study.

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For the record, it can be reaffirmed that the definition of a literate person used by EW is the same as of UNESCO and the one generally used in Bureau of Statistics surveys and the Census, Only

vulnerabilities stemming from the

coastal and estuarine erosion

makes the public and private

development efforts continuously

repetitive, distract community

interests and cause readily

unsustainable, mounting pressures

The draft National Water Man-

agement Plan supports natural

accretion of coastal and estuarine

lands and recommends that sea-

defence should largely be the

responsibility of the government.

integrated coastal zone manage-

ment will be complementary to

existing national policy documents

of other related sectors. The pro-

posed vision is to make the zone a

place where local people can pursue

their life and livelihood within a

secure set of physical conditions. The

conceptual developments are

expected to aid the erosion manage-

ment provided that the issues occupy

its severe impacts on the commu-

nity. Top sheet erosion of the coast is

not so common nor of importance in

terms of its immediate impacts.

Sand dune and vegetation provide,

Unfortunately there is neither a policy nor even a

strategy for coastal and estuarine erosion control.

Erosion control attempts are made in isolation only

while it is at the break-even point or becomes

inevitable. Erosion control measures are tied with

the engineering safety of the backshore

infrastructure regardless of its environmental

The enormity of the erosion has

an appropriate place in the policy.

The upcoming policy document on

on national initiatives.

the method of ascertaining the skills has been different -- that is, a test has been administered instead of asking people to rate themselves. A guick look at the literacy skill tests in the annex of the EW report will show what little is demanded to be qualified as literate. As for the sample size, any knowledgeable statistician will vouch for the adequacy of sampling of the EW study for making the necessary estimates.

It will not help the cause of literacy and basic education to continue to defend the indefensible. Nor does it help the image of the country to persuade the Prime Minister (both the present and the previous one) to declare with great fanfare a district "free of illiteracy," when clearly this is not the case. The post-literacy and continuing

education projects, supposedly to follow the successful completion of the TLM literacy course, financed by loan from World Bank and ADB to the tune of \$170 million, are going

almost 40 per cent of the total allo-

cation in 1998 - 99. The political

ecology seems to have a role in

such sporadic erosion control

measures taken up by political

Solutions to erosion are linked to

engineering and non-engineering

approaches containing perception,

attitude and participation of neigh-

borhood community and water

managers in the management of the

coastal and estuarine ecosystem of

which they are part. The govt. car-

ried out experiments on evolving

sustainable solutions to widespread

erosion: one dealing with the estu-

ary and the other with the coast. The

objective of the trials was defined as

to develop appropriate techniques

for efficient land reclamation and

effective erosion protection. Various

modes of protection works were

tested making use of low cost tech-

nology, as to find the most-

In carrying out this, a bottom-up

approach was applied: learning

lessons from a trial, improvements

were introduced to acquire knowl-

edge and earn confidence. The

comparatively more aggressive

hydrodynamics of the estuary and

economic and sustainable ones.

on. Weak design and unrealistic premises appear to plague these projects also. One of the design problems of course is the presumption regarding literacy skills of the participants. The press has been reporting again of corruption and mismanagement in these projects similar to that in TLM. A new wist this time is that the projects are being implemented by NGOs on contract from the Directorate of Non-formal Education. The newspaper reports have mentioned "brief-case" NGOs formed precisely for the purpose of bidding on contracts for Directorate of Nonformal Education projects.

The public and media discussion following the Education Watch literacy report has been largely in favour of the government bringing together researchers and specialists to take an honest look at and come to a consensus on the literacy situation. This discussion also has pointed to the need for a fresh look at the programme strategy and approach for literacy and continuing education with the participation of government and non-government actors in literacy and basic education. Access and quality in primary education should be a part of this dialogue within the broader framework of Education for All goals of the

The writer is the Convener of Education

Conned by the neocons!

DR. FAKHRUDDIN AHMED writes from Princeton

ENITENCE is good for the soul, so says all the religious scriptures. President George W. Bush, self-described "man of God" is having a tough time expressing contrition, admitting mistakes or coming down from the pedestal American neoconservatives perched him on. Couched in a language that was neither apologetic nor conciliatory, his September 7 supplication for more international troops and money for Iraq was defiant and haughty to the extent of lecturing the foreigners that it was their "responsibility to assume role" in Ira unilateralist US President and his neocon cohorts ran roughshod over the world public opinion and gleefully invaded Iraq over the world's objection, how Iraq has suddenly become the world's "responsibility" is hard to figure out. There must be some logic in the statement somewhere. but such Bush-logic eludes most of the world!

By resisting the urge to gloat and utter. "We told you so." the world has demonstrated far more class and maturity than the Bush administration. As The Washington Post's columnist William Raspberry so aptly puts it, the Bush administration is behaving like a daredevil who defies all sane advice before undertaking a very risky and stupid adventure, and when he gets into serious trouble attempt to extricate himself by seeking the assistance from the same people who warned them in the first place. And he does so not with humility, but by lecturing the ifesavers, "it is your responsibility to save me!"

The neoconservatives had deduced that the path of least resistance for attacking Iraq ran through the neocon-loaded Pentagon of Vice President Dick Cheney (Secretary of Defence under the elder President Bush), super neocon-hawks Defence Secretary Donald Rumsfeld, and Deputy Defence Secretary Paul Wolfowitz. The neocons hate the "soft and untrustworthy" Secretary of State Colin Powell so much that the State Department has been shut out of the civilian rebuilding of Iraq. neocons at the Pentagon have the President's ears, not the State Department. In the corporate world culture, the heads of those responsible for getting the US in the Iraqi mess would have rolled. The President, the Vice President and the Secretary and Deputy Secretary all would have lost their jobs. Yet, none has been held accountable for the Iraqi quagmire. Instead, Rumsfeld, Wolfowitz and other neocons continue to flourish at the Pentagon. Furthermore, President Bush recently appointed Daniel Pipes, a notoriously anti-Islamic, pro-Israeli and pro-war neocon hawk to a position of great influence by bypassing Senate, which would not confirm him.

The New York Times' Maureen Dowd poses some serious questions for President Bush: "Does Mr. Bush ever wonder if the neocons duped him and hijacked his foreign

policy? Some Middle East experts think some of the neocons painted a rosy picture for the President of Arab states blossoming with democracy when they really knew this could not be accomplished so easily; they may have cynically suspected that it was far more likely that the Middle East would fall into chaos and end up back in the pre-Ottoman Empire, Balkanised into a tapestry of rival fiefs -- based on tribal and ethnic identities, with no central government -- so busy fighting each other that they would be no threat to us, or Indeed, some senior Republicans are becoming increas-

tant concession Bush should make isn't about money or control -- it's about truth-telling. He squandered American credibility by selling a war of choice as a war of necessity. If he wants to get that credibility back, he has to start being candid. Yet in the speech on Sunday he was still up to his usual tricks. Once again he made a rhetorical link between the Iran war and 9/11. This argument by innuendo reminds us why 69 per cent of the public believes that Saddam was involved in 9/11, despite a complete absence of evidence. Bush created this crisis, and if he were a true patriot he would pay a political price to resolve it.

LETTER FROM AMERICA

President Bush and his subordinates still believe that they can tap dance their way out of the Iraqi disaster. While appearing before the Senate Foreign Relations committee on September 9, all Deputy Defence Secretary Paul Wolfowitz would talk about was how great things are in Iraq for the Iraqis. Reminiscent of the performance of Dean Rusk at the onset of the Vietnam War, Wolfowitz wanted the Senators to forget about how the US created the Iraqi mess...

ingly concerned about the hidden agenda of the Israel-oriented, mostly Jewish, neocons, who masquerade as Republican hardliners. Says Dowd: "Some of the father's old circle are thinking about forming a Republican group that would speak out against the neocons. "The President ran on no nation-building. Now we are in this drifting, aimless empire that is not helping the road map to peace." Bush pere, a former US Ambassador to the UN, reportedly "agonised" over the bullying approach his son's administration used at the UN and

Dowd's fellow columnist at the Times, Paul Krugman is more blunt: "It is now clear that the Iraq war was the mother of all bait-and-switch operations. Bush and his officials portrayed the invasion of Iraq as an urgent response to an imminent threat, and used war fever to win the mid-term election. Then they insisted that the costs of occupation and reconstruction would be minimal, and used the initial glow of battlefield victory to push through yet another round of irresponsible tax cuts. Now almost half the Army's combat strength is bogged down in a country that wasn't linked to Al-Qaida and apparently didn't have weapons of mass destruction, and Bush tells us he needs another 87 billion dollars right away. If Bush had admitted from the start that the postwar occupation might cost that much, he would never have gotten that last tax cut. Now he says, 'We will do what is necessary, we will spend what is necessary..,' What does he mean 'we'? Is he prepared to roll back some of the tax cuts? Will the Bush administration swal-

Adds Krugman: "The most impor-

May be it is time for him to do a couple of things he's never done before, like admitting mistakes and standing up to the hard right (neocons).

President Bush and his subordinates still believe that they can tap dance their way out of the Iraqi disaster. While appearing before the Senate Foreign Relations committee on September 9, all Deputy Defence Secretary Paul Wolfowitz would talk about was how great things are in Iraq for the Iraqis. Reminiscent of the performance of Dean Rusk at the onset of the Vietnam War, Wolfowitz wanted the Senators to forget about how the US created the Iraqi mess, instead focus on the fact that since we are there, we must not lose! Rumsfeld echoed his Deputy's sentiments by warning Americans that criticism of war only encourages the terrorists! Indeed, Bush administration's creed is that dissent is treasonous, and American "unity" means a blank check for the President, figuratively and literally. By asking the Congress to tack a breathtaking \$87 billion for Iraq and Afghanistan onto \$500 billion federal deficit, the President demonstrated wilful disregard of the long term damage that accumulating deficit would do to American economy. While petitioning the world for troops who will die in Iraq in place of the Americans, and money to relieve the American treasury, Bush's use of undiplomatic language (world's "responsibility") isn't going to make the world line up behind him in a hurry. The world is going to retort: "Let me be the judge of my responsibility," and wonder, where is the humility of a "man of God?'

To sustain his popularity. Presilow its pride and cede substantial dent Bush shamelessly continues to link Iraq and Al-Qaeda. A New York control over the occupation to the Times editorial suggested that Mr. Bush's propensity to label all the

Iragis resisting American occupation as "terrorists" adds to the confu-The writer has repeatedly stated that suicide bombing is morally repugnant and religiously forbidden, and that no Israeli man. woman and child deserve to die at the hands of the suicide bombers. President Bush, on the other hand, is very quick to condemn in the strongest terms possible any hostile act by the Palestinian resistance, but never ever condemns the Israeli equivalent of suicide bombing -targeted assassinations of Palestinian leadership that inevitably result in the killing of innocent civilians, and collective punishments such as blowing up of Palestinian apartments -- both of which are illegal under international law. Blaming the Palestinians for everything may play well at home and in Israel, and may enhance the reelection chances of a reelection-obsessed President, but it will not solve the Palestinian problem. Al-Qaeda is the most extreme (and completely unacceptable to most Muslims) manifestation of Muslim anger at the US for its unfair policies towards them in Palestine. It is unlikely that President Bush will win the war on terrorism, and win the hearts of the moderate Muslims (which will starve Al Qaeda of new recruits), as long as he gives Israel's Ariel Sharon a blank cheque to terrorise the Pales-

astronomical tides, storm waves and infrequent extreme events. The varies from 10,000 m3/s during dryduring the wet. The annual tons. The variation in tidal range is in the landward zone of the coast. basic physical parameters for erosion are river discharge varying with hydrograph, sediment discharge varying with channel geometry, bed and bank material and, length and slope of the steadily and expected to continue in the future, the issues presented by far more severe.

the community the land holding and

Dr. Rubaiul Murshed

All health information to keep you up to date

Around the world

Kidney patients

According to a recent American study, acute kidney failure patients treated with diuretics are about three times more likely to die or suffer irreversible organ failure than patients who are not put on the drugs. The study was based on acute renal failure cases. The findings require further investigation, but in the absence of contradictory evidence, doctors would be best advised to abandon the use of high-dose diuretics in critically ill renal failure patients, researchers at the University of California San Diego said.

The therapy is standard practice in up to three-quarters of US hospitals, but there is little strong evidence to encourage its use, and the drugs may even be toxic to the patients, according to the study. According to researchers, even if they are not, they may mask the true

extent of the problem in some patients by taking over the function of the kidneys, increasing the amount of urine produced, leading doctors in intensive care units to "underestimate" the severity of renal injury when urine output is sustained. The study also questioned whether patients on diuretics -- which help

the body get rid of excess liquid -- are losing time that would be better spent on dialysis. In their review, the Californian researchers found that the ones given

diuretics typically wasted a day or two before being put on dialysis -- a process by which the blood is mechanically filtered to remove waste -- as physicians waited for the patients to the diuretic therapy. Did you know?

If you wear contact lenses, be sure to clean them faithfully each night and according to your physician's directions. Next: Migraine

Containing coastal and estuarine erosion Need for a strategy control measures rose as high as the asset provide. The

MD. SAEEDUR RAHMAN

ROSION is caused by the hydro-morphological inputs such as river discharges, Ganges, Brahmaputra and Meghna (GBM) rivers system discharge season to more than 100,000 m3/s sediment discharge ranges between 0.5 billion to 1.8 billion less than 2 m to about 6 m. The maximum current velocities vary from approximately 0.1 m/s to 4 m/s in tidal channels. Under the prevailing average wind speed of about 8 m/s, the average significant wave height ranges from 0.6 -1.5 m in the near-shore zone to 0.1- 0.6 m During monsoon wave heights can exceed 2 m with periods greater than 6 seconds. Cyclones occur at a frequency of 1.3 per year and may generate wind speeds of more than 150 km/hour and surges that are 9 channel. With sea levels rising erosion are also apprehended to be Impacts of erosion are

eventually translated into enormous vulnerabilities raising challenges the nation has to face in realising benefits from its developmen programmes. Erosion causes affected people suffer emotionally by the fact that they loose not only an important production asset but also suffer the loss of their status in

natural protection to erosion of the beach as well as break waves that cause propagation of erosion to coastal infrastructure at the backshore. Mangrove and nonmangrove forestry also provides protection to shore. Gradually built and frequently rehabilitated 654 km long sea-facing embankment faces a continuous problem of erosion by morphological erosive forces Interestingly notable that 8770 km of embankment system developed over the last four decades targeted to control flood had no provision for protection against erosion; consequently resulting in the cumulative length of about 39,500 km because of recurring reconstruction. The annexes of concerns shrouding the erosion are also myriad. These are scarcity of land, absolute increase in size of national population by 40 per cent over the planning time base, 20 per cent reduction of agricultural lands because of erosion, urbanisation and other reasons, reconciliation of another 20 percent

other sector demands etc. Erosion has currently been recognised as a major cataclysm towards perpetuating rural and urban poverty. Development partners and water resource planners awakened only after formulation of the FAP. The government did not ignore the issue of such high priority area and as such, in several cases some stand-alone erosion control measures were implemented on adhoc basis. The investment trends in the erosion control measures indicate that between 1971 to 1991 the measures were nominal culminating in between1996 and 1998 with donors' supports. The government has displayed the success of protecting Sirajgonj and Chandpur Towns from erosion including the industrial zone at Chittagong, albeit debated by many. The recent investment trend is descending. The per

cent of annual investment in erosion

lands for targeted afforestation and

impacts and economic analysis. the coast of Bangladesh is not compatible to a simple solution to such erosion ubiquitously. Location specific solutions to erosion with improved designs anchored by nonengineering components such as afforestation, community participation and awareness growing are indicative to be effective and sustainable. The emerging solutions to coastal and estuarine erosion has acquired cognisance and opened slot for water professionals to shrink the knowledge gap. Apathy for continuation of the improved trials may eventually turn these invest-

ments into a total wastage and sink

lessons into oblivion.

There are two general types of coastal and estuarine erosion protection: hard and soft. A "hard" protection device utilises concrete and rock in a variety of configurations to absorb or dissipate erosive forces, generally in the form of seawalls or revetments. Soft protection primarily utilises dune or vegetation or foreshore mangrove to prevent erosive forces from reachng the backshore. Hard protection device is historically the most common approach to reducing erosion and protecting private or public infrastructure. These devices can minimise wave attack and backshore erosion and are often used to protect public infrastructure. Although protective devices have benefits, the adverse impacts of these structures can be substantial that include limiting public access to the shoreline, increasing erosion along adjacent areas, restricting sand input from armoured bluffs. reducing the public area with the structural footprint, and disrupting the visual character of the estuary and the coast.

Additionally, protective devices are often constructed on an emergency basis during intense flood, wave or current generated erosive activities without proper engineering or appropriate materials. This

usually leads to eventual failure of the device and creates subsequent hazards along the erosion prone coast and estuary floating public abuse. Vegetative covers protect backshore infrastructure. Devegetation resulting from population pressures has in the recent past forced to restore and enhance the vegetation of foreshores in the coast and the estuary. Beaches can be restored or nourished to increase their width by depositing sand up coast, directly on beaches, or in the near-shore. Impediments to beach nourishment include initial and maintenance costs, limited sand sources, difficulty in transporting and placing sand, the possibility of significant environmental effects Benefits include the economic and aesthetic values of a wide recreational beach, the restoration of

ncreased public safety and access. In minimising hazards from erosion there may be three major management strategies to plan for and respond to coastal and estuarine erosion: hazard avoidance, relocation, and protection. The maximum potential efficacy and acceptability of these strategies cannot be determined without multidisciplinary project planning. design, monitoring, and evaluation. The most logical method for preventing potential damage to new developments in the coastal and estuarine zone is not to build where erosion will impact them within its expected life. This concept, known as hazard avoidance, is highly encouraged and, if practiced by planners and developers, would circumvent many subsequent problems.

sandy beach habitats, and

In some instances, development is sited in unstable, erosion-prone areas that eventually may be damaged or destroyed by hydrodynamic processes acting on the estuary and the coast. Relocating coastal and estuarine infrastructure away from the erosion hazard zone is the preferred option when responding to the eventual or imminent threat of damage. While relocation of coastal infrastructures away from hazardous zones would be the most direct way to eliminate the need for protection, this response may not be technically feasible, socially viable or the most cost-effective alternative from the government's viewpoint.

Relocation of infrastructure and hazard avoidance planning and response strategies addresses the effects of erosion, but they do not address beach erosion. In those situations where hazard avoidance and relocation are not viable options, protection strategies are the only option to reduce the loss due to erosion. Unfortunately there is neither a policy nor even a strategy for coastal and estuarine erosion control. Erosion control attempts are made in isolation only while it is at the break-even point or becomes inevitable. Erosion control measures are tied with the engineering safety of the backshore infrastructure regardless of its environmental impacts and economic analysis. Questions are in the fore days as to whether there be a strategy or a change in the current practice for erosion management in planning and implementing the coastal and estuarine resources management programme. The political will, in any case, will determine the turning point.

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