

insurance (hinduEditorial, NREG A)

With unseasonal rain laying waste vast areas under the *rabi* crop in north India earlier this year and the threat of a deficient monsoon looming, the Mahatma Gandhi National Rural Employment Guarantee Scheme could act as a real salve for distressed farm workers and labourers. The World Bank's brief statement on the scheme on Tuesday to this effect, as part of its latest *India Development Update*, concurs with recent empirical research that has revealed that the MGNREGS has acted as an effective substitute in the absence of crop and weather insurance to poor farm households in some States lately. The National Democratic Alliance government would do well to heed this timely suggestion from the World Bank, which has released a volume on the scheme based on research done in 2009 and 2010. The Bank goes on to say that the MGNREGS can be a better-targeted scheme than even a cash transfer programme. Yet, reports reveal that there is much unmet demand for labour provided under the MGNREGS over the past year, due to poor implementation by some State governments and a general apathy shown by the NDA regime since last year. This is evident in the reduced outlays for the scheme (as acknowledged by the Finance Minister, yet addressed only with a promise of additional budgetary support subject to the availability of revenues), and delays in transfer of monies to State governments which has led to tardy wage payments. All this has resulted in an unresponsive set of conditions that has not encouraged demand for labour provided under the scheme. The government's effort to identify the poorer districts for higher allocations has only seemed to curtail demand in the other districts, which number much higher. The MGNREGS is a demand-driven scheme, but the fact that it requires adequate conditions for its effective implementation is self-evident.

The laxity in the implementation of the scheme over the past year has meant a reduction in the number of workdays as compared to previous years. There are certainly a number of improvements that are required to be made. These include better and more productive asset-creation through work done, improved administrative management, provision of information to and sensitisation of the public as the World Bank also points out, and checking leakages. But the fact that the MGNREGS has provided succour to India's poorest sections in rural areas is something that has been acknowledged and acclaimed, as the World Bank statement also shows. Considering that the benefits of the scheme outweigh the drawbacks, it would be an act of poverty if the government does not utilise the MGNREGS to bring relief during a time of significant agrarian distress in a number of States.

Keywords: World Bank, NREGA

In defence, time for tough decisions (hindu, defence, essay)

Opting to drastically downsize 17 Corps and buy Rafale fighters were two bold, but not necessarily good, moves. Now, it's time for the Defence Minister to create a unified services chief.

Arun Jaitley and Manohar Parrikar, the government's first and incumbent Defence Ministers, respectively, perhaps hoped that the pitiful record of their predecessor A.K. Antony, India's longest continuously serving Defence Minister, would make their task easier. Instead, it's been quite the opposite. Mr. Parrikar seems to have spent the last several months cleaning up what he insists is a fiscal and policy mess bequeathed to the government and overlooked by Mr. Jaitley, who was, for a brief period, wearing two hats as Finance and Defence Minister. But is Mr. Parrikar leaving the place tidier than he found it, or laying down an unhelpful legacy of his own? Three areas are worth looking at more closely: the slashing of the much advertised 17 Corps, the country's first mountain strike force; the sudden re-jigging of a deal to purchase France's Rafale fighter aircraft; and, most importantly, the vexed question of reforming India's military command.

Two years ago, the previous Congress-led government announced the [raising of 17 Corps](#), which, unlike 1, 2, and 21, would be directed at China rather than Pakistan, and therefore configured for mountain warfare. It would consist of two infantry divisions, three artillery brigades, three armoured brigades, and a host of supporting land and air units. Mountain units aren't as mobile as those that fight in the plains, and so require plentiful airlift, particularly helicopters and light artillery. The 17 Corps would be large, with around 80,000 men, and expensive, costing well over \$10 billion, \$1.2 billion of which would have to be spent annually till the early 2020s. To put that in perspective, the Indian Army's entire allocation for 2015-16 is \$16 billion. As Mr. Parrikar asked, "Where is the money?"

Two out of three

Mr. Parrikar's response has been to more than halve the size of 17 Corps to just 35,000 men, and to propose that the Army take a long, hard look at its current strike corps and other Pakistan-facing units. This will have mixed results. On the one hand, loudly raising new units on paper and then quietly slashing them sends a signal of weakness, even fecklessness, to your adversaries. Critics will accuse Mr. Parrikar of gutting India's modest offensive capability against China even before it got off the ground. On the other hand, downsizing creates an opportunity to ensure that the pruned 17 Corps can now actually afford the equipment and supporting platforms it needs if it is to be combat-effective. It is better to have a smaller and more potent force than a large and flabby one.

Mr. Parrikar can turn this decision into an opportunity, but only if he focusses on explaining his intentions rather than on blaming previous governments.

The second choice, one in which Mr. Parrikar seems to have been largely uninvolved, is [India's decision this month to purchase 36 French Rafale fighters](#), multirole aircraft that can defend the skies and strike targets on the ground, in so-called "flyaway" condition. The catch is that India originally wanted to buy 126 aircraft, and was using the leverage of such a large order to negotiate a substantial transfer of technology to India. Although the idea goes back years, it dovetailed perfectly with Prime Minister Narendra Modi's 'Make in India' initiative. It now seems that India effectively blinked. Nothing is to be made in India and everything will be imported. In the last three years, Indian arms imports have grown 56 per cent. This government is close to failing its first serious test at addressing that trend.

The deal also places a huge question mark over where the remaining 90 aircraft, required to keep the Air Force at reasonable strength, will come from. Mr. Parrikar has suggested, almost off-hand, that India might buy another light, single-engine fighter to supplement the indigenous Tejas, as part of the process of replacing the ageing MiG-21. This could include the Swedish Gripen NG fighter jet, a cheaper but attractive aircraft that lost out to Rafale earlier. But this throws up fresh problems. First, it would increase the variety of aircraft in the Air Force inventory, something that has been an issue since the 1990s, which increases the burden on training and maintenance. Second, it's a bit like comparing apples and oranges: the Gripen and Rafale have different strengths and weaknesses, so the optimal balance between them would depend entirely on the kind of Air Force India wants to develop. Without some public statement that clarifies India's defence posture, it's hard to judge whether Mr. Parrikar is following a carefully thought-out plan or, more likely, improvising. Mr. Parrikar has justified the deal by calling it "oxygen relief" for the Air Force, but short-term impulsive buys will generate problems down the line.

As the British politician Nigel Lawson once observed, "To govern is to choose. To appear to be unable to choose is to appear to be unable to govern". The government's decisions on both the mountain strike corps and Rafale are bold choices, even if it's unclear whether they are good ones. But in a third area, the government has not chosen at all.

Wanted: unified services chief

It is widely accepted that India's civil-military relations and higher defence management are unfit to meet the needs of a rising, ambitious power in the top tier of Asian military forces. Successive government-appointed committees stretching back decades, and innumerable experts have made it clear that India's three services must be stitched together with a Chief of Defence Staff (CDS) or equivalent post, sitting above the three service chiefs, who would be capable of giving the government coherent advice on military matters and imposing unity of purpose on the Army, Air Force, and Navy. As the scholar Anit Mukherjee wrote this month, "Left to themselves, they have not even been able to agree on training their musicians together, let alone pooling resources for joint training and logistics".

In mid-March, Mr. Parrikar candidly acknowledged that "integration of the three forces does not exist in the existing structure", and promised that "in the next two to three months my Cabinet note with the recommendation for a CDS will go to the Cabinet Committee on Security for the final decision". He added that "a CDS is a must". This is extremely promising, but caution is in order. If the Minister is serious, he should draw on the wealth of studies and recommendations

produced by past committees to set out his vision for defence reforms. Every past effort has foundered on political and bureaucratic opposition. If Mr. Parrikar does not wish to go down as yet another Minister who raised expectations and fell well short, this is the time to take his commitment seriously. If he gets this decision right, it will be remembered long after the Rafale is retired.

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Keywords: Mountain corps, rafale deal, Chief of Defence Staff, India defence strength

Forced into marriage by social pressures (TheHindu gay rights, Section 377)

A gay man and a straight woman in a marriage are both victims of a society that reinforces heterosexual marriage as the norm.

Recently, a [doctor in Delhi committed suicide](#) when she found out that her husband was gay. Her suicide note indicates that she also faced mental harassment from her husband. In late 2014, a dentist in Bangalore, on finding out that her husband was having sexual relationships with other men, filed a case under Section 377 of the Indian Penal Code. Both these incidents highlight the issues surrounding homosexual men in marriages with straight women.

I am a lawyer who assists women in matrimonial and domestic violence cases in different forums. I have also been associated with campaigns for the rights of Lesbian, Gay, Bisexual and Transgender (LGBT) persons. Due to my work in these spheres, these incidents evoke mixed responses. On the one hand, I strongly feel for the woman, who is in a marriage devoid of sexual intimacy coupled with cruelty. On the other hand, however, I also empathise with the man who had to hide an aspect of his sexuality because most people not only look down on it, but also actively condemn it. It is tempting to look at the situation as a conflict between the rights of a woman inside a marriage and the rights of a gay man. However, such an evaluation could lead to a conclusion that grants greater victimhood to one party over another, which is simplistic and ignores the nuances and complexities of such a situation.

Women take the blame

In these cases, both man and woman were victims of a culture where people are expected to be married, bear children, acquire property, and contribute to the

growth of the family lineage.

For the woman, being married to a homosexual man puts her under great emotional distress, more so in a culture where women are habitually blamed and are also conditioned to take on the blame. If there is no sexual intimacy, they blame themselves; if there are no children, they again blame themselves. All this results in very low self-esteem and acts as a trigger for emotional and mental health issues.

It is worsened if there is physical and mental cruelty inflicted by the husband or his family. While there are laws that protect women from such situations, it often takes a long time for women to recognise, acknowledge, and come to terms with the violence and cruelty before they can seek legal remedy. In most cases, by the time they seek legal recourse, much of the damage is already done in the form of mental and physical cruelty. Men, homosexual or otherwise, are also under great pressure to get married. It is rarely seen as connected to one's sexuality or sexual orientation, but only as an institution that has social importance with little personal significance. For instance, when a homosexual man comes out, his parents are likely to insist that he get married and work out "arrangements" outside the marriage.

Men also face the threat of being disowned and disinherited by their families if they do not comply with their wishes. Another fear articulated by some gay men is that the law is against them, with the Supreme Court of India reaffirming the constitutionality of Section 377, which criminalises certain sexual acts.

However, the judgement of the apex court also states that the section only criminalises certain sexual acts and not particular people, identities or orientations. Thus, no one can be charged under Section 377 for being gay.

Tremendous progress was made after the 2009 judgement of the Delhi High Court that had held Section 377 in its current form as bad law. After this judgement, numerous support spaces, organisations, magazines and events for queer persons were established and continue to exist and function despite the Supreme Court's 2013 judgement. All that was done after 2009 has not been undone; and homosexual persons, their families, and spouses should be encouraged to access these spaces.

Better law still needed

Having said that, the fear of persecution using Section 377 continues, and all efforts must be taken to amend the law suitably to exclude consenting adults. Thus, it may be argued that a gay man and a heterosexual woman in a marriage are both victims of a society that privileges heterosexuality and reinforces heterosexual marriage as the norm. However, it must be noted that a cisgendered, gay man has certain privileges that neither heterosexual nor lesbian women are likely to have. Despite being in a marriage, he is more likely to be economically independent and have enough physical independence as well to continue to have relationships outside of the marriage. On the other hand, a woman's autonomy is severely compromised by marriage, and if she is in a bad marriage, it leaves her doubly disadvantaged. The odds are stacked further against lesbian women coerced into marriage with straight men.

In order to combat the problems that arise out of such relationships, it is

necessary to first address and question marriage as it is perceived today. The contours of relationships within marriages or otherwise are set a priori outside of the lives, interests and habits of the individuals concerned. The ideals of how a marriage ought to be are prescribed by sociocultural norms dictated by heteronormativity and patriarchy, thus leaving no scope for individuals to set their own terms for the relationship. This situation is aggravated by the institution of arranged marriages, which provides little or no space for conversations between the man and woman. Gender roles are predetermined and the reasons for the marriage dictated beforehand. These set rules undoubtedly favour the man, thus putting him in a place of power and privilege within the marriage relationship, and adversely affecting the woman.

The issue of forced marriages of homosexual persons are akin to forced marriages of any kind. Thus, it becomes vital to relook at marriages per se and emphasise the ideals of transparency, communication and honesty from the start.

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Keywords: LGBT, gay rights, AIIMS doctor suicide, Section 377

Japan and quake preparedness (disaster managemen, the hindu)

A robust disaster management programme which includes various aspects of mitigating after-effects, sensitisation of the public, warning systems, and architectural changes resulting in quake-resistant buildings has characterised Japan's earthquake preparedness

The earthquake in Nepal has jolted the world. According to initial estimations by the United Nations, eight million people in 39 districts have been affected. Of them, over two million people live in 11 severely affected districts. Ninety per cent of the houses there have been “flattened”. Heritage buildings are now rubble, thousands are homeless, many have lost livestock, and have little food. On behalf of all Japanese citizens, I extend my heartfelt condolences and prayers to those who have lost their lives, their families and those affected. I hope international help is able to ensure rapid rehabilitation and reconstruction.

I recollect how Nepal and India were quick to support Japan when it faced a similar situation in 2011, during the Tohoku tsunami where more than 20,000 people died.

Japan falls in a seismically active region and earthquakes are a part of life. Japanese seismologists and engineers are always working on solutions to mitigate the loss and damage caused by earthquakes. Most difficulties stem from the fact that the occurrence of major earthquakes spans intervals that are generally longer than the average lifespan of citizens. And memory is short. There is a saying here: “When danger passes, even god is forgotten.” For example, memories of the 2011 tsunami have long passed. Therefore, the question is: how long will you remember a disaster? And how do you pass on the lessons learnt? In this article, I would like to address this issue and look at what needs to be done, from the point of view of someone who lives in a seismic zone.

Earthquake forecasting

An earthquake is a sudden violent shaking of the ground, typically causing great destruction, as a result of volcanic action or movements deep within the earth's crust. The Nepal quake resulted from a collision between the Indian crustal block and the Eurasian continent. Geophysicists know that the entire Indian subcontinent is being driven slowly but

surely beneath Nepal at a speed of five centimetres a year. This generates a five-metre contraction over a century and results in silent stress build-up in the inner crustal rock. An earthquake occurs when stress accumulation reaches critical point. Over millions of years, the squeezing has crushed the Himalayas, raising mountains and triggering earthquakes on a regular basis. This will continue. This dynamic process will also induce stress accumulation in India. The Gujarat earthquake of 2001 was a result of this process. This shows that a quake is sure to occur in future.

Like Japan, Nepal is also located in one of the most seismic active zones. "An earthquake repeats itself", which is a Japanese proverb, is apt here as well. Earthquake forecasting is a kind of historical science. If you can find documentation of a quake in ancient literature or legend, that place is bound to be earthquake prone. I pose this question next: do you know the earthquake history of your region? But let me not be an alarmist. The India Meteorological Department keeps track of all this. However, I suppose most people don't know. It is perfectly natural that people do not worry about such things; it's the same in Japan as well. As scientists, we try to create awareness about earthquake risk in the form of public lectures, mass media campaigns, science shows and governmental meetings. Therefore, "risk recognition" is the first step towards disaster mitigation.

In Nepal, researchers did track active earthquake history and issued warnings about a possible and destructive quake. For example, my colleague visited Nepal frequently to research strong ground shaking to help in disaster mitigation studies. Earthquake science still does not have a tool for imminent earthquake prediction. Therefore, being prepared for one is a crucial, and, often, the only step for disaster mitigation.

Disaster and public policy

In an earthquake, most of the damage is caused by collapsing buildings. In Nepal, most victims died this way. This is a major problem confronting architects.

Recent architectural developments, however, allow for the construction of quake-resistant buildings, but such construction is more expensive than an ordinary building. Therefore, cost-effective solutions are also a challenge. The Japanese believe and agree that anti-disaster investments are lifesavers. If the Indian government makes a public investment in this area, it should first come to some sort of social agreement in disaster mitigation. The role of the mass media is also important because it plays a key role in creating awareness about disaster preparedness. This must be emphasised. We must remember that it is people and commercial companies that are involved in construction and not the government. So, disaster mitigation cannot achieve optimal results unless there is understanding and cooperation. The media should also highlight the benefits of public and commercial investments.

Japanese anti-quake construction technology places a premium on high performance. Hence, what is suitable for Japanese conditions may not work elsewhere, in terms of applicability and cost. I suppose the export of such technology may not solve problems elsewhere. Therefore, the Government of India must develop an anti-disaster technology that suits Indian construction and conditions.

Risk evaluation and management

Disaster mitigation measures also require risk evaluation for rural and urban areas. In high-risk regions, there must be public investment. Policymakers in India must look at those parts of the country that have high quake potential. Records show that the western, coastal and northern regions are at high risk. Another important factor is "occurrence frequency and probability". Shorter intervals between quakes indicate a high probability. At the same time, longer intervals also produce high probability. An evaluation of these factors will give one the basic information required. I would also like to add that earthquake research can't operate on a commercial basis, so government funding is a must

for scientific investigation. The Japanese government operates the Headquarters for Earthquake Research Promotion based on Special Measure Law on Earthquake Disaster Prevention. Its director is a minister and its committees consist of government officers, governors, professors and researchers. The most important role of this special inter-ministry organisation is to publish probabilistic seismic hazard maps resulting from probability evaluation of earthquake occurrences. It also conducts unified national earthquake research – as geological surveys, earthquake monitoring and computer modelling. The results from all these projects produce the probability of earthquake occurrences. For instance, its research has shown that a strong shaking probability for the Tokyo Metropolitan area for next 30 years exceeds 80 per cent.

Earthquake risk is defined in the following way – multiplication of earthquake magnitude, probability and social fragility. Scientific data can only estimate magnitude and probability. This shows that if a place is “very fragile”, even a small earthquake can result in disaster. “High fragility” is the state of being unprepared by having non-quake-resistant construction. Mankind has no control over the magnitude and probability of a quake but architectural engineering can help reduce the fragility. Japanese quake-resistant house and building compliance is now about 80 per cent.

Response and supporting technology

In a quake, the survival time of someone who is buried is 72 hours. Therefore, rapid initial rescue is crucial. Who does the rescue then? The fire department? The police? The military? In a quake, one must be able to think of how to survive and escape. This is the experience in Japan. What if help is inadequate? A real-time earthquake observation system should support the quick start of a rescue. In Japan, any seismic activity of more than ‘5+’ intensity automatically activates governmental response. There is surveillance by self-defence forces, a disaster countermeasure preparation

office starts working, and a medical assistance team is on standby. For any smooth operation, there has to be a drill. So, disaster prevention agencies and governments frequently conduct all kinds of training and simulate situations. But even the best trained rescue operation requires lead time to access sites.

In Japan, a real-time Earthquake Early Warning (EEW) is in operation. If a quake is in the sea, the speed of an earthquake wave is about 8 km per second, which is slower than an electric signal. If the epicentre is away from one's location, an electric signal reaches faster than the shake that gives the lead time before the quake arrives. An EEW alert is automatically triggered whenever any seismometer detects a seismic signal. There are alerts to the public through the media and the Internet. Trains, elevators and industrial machines are stopped automatically.

These examples show how earthquake monitoring data might help decrease the impact of a disaster. However, for the full impact of such a system, there needs to be a high ratio of anti-quake construction. How does one minimise the chances of being buried alive? The point is that government investment in anti-quake construction takes precedence over a modern alert system.

The annual disaster prevention drill in Japanese schools also plays an important role. Students are taught to hide below their desks in a quake. In their syllabus, they learn about natural disasters, disaster history, and hazard mapping.

Importance of legislation

Legislation also plays a most important role in disaster mitigation. The Japanese government has amended the Building Standard Law at regular intervals to reflect the advances in science and technology, and the lessons learnt from the last earthquake that occurred. The present version requires that new constructions should not be damaged in a medium earthquake and must not collapse in a large earthquake. These stringent measures have successfully reduced human toll in recent quakes. There is also a

programme of tax incentives for anti-quake construction, that has enabled a higher ratio of anti-quake constructions in Japan. Therefore, economic incentives are also required to achieve actual law implementation.

With a proper legal system in place, new constructions will be better adapted for high seismic activity. We should try to develop a legal system, especially a Building Standard Law for earthquake disaster mitigation. Another countermeasure against quake disaster is a city planning policy and advance reconstruction policies. I believe these insights based on actual disaster experiences in Japan will go a long way to help save precious lives.

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Keywords: Japan earthquake, earthquake preparedness, disaster management

Nadia first 'open defecation-free' district in India

UNICEF India representative David Mcloughlin congratulated the people of the district for achieving the goal.

West Bengal Chief Minister Mamata Banerjee on Thursday declared Nadia as the first Open Defecation Free (ODF) district in the country.

"I feel proud to declare Nadia to be the first ODF district in the country. I congratulate Nadia district for achieving this feat and convey my thanks to World Bank and the UNICEF," Ms. Banerjee said while speaking at the programme here.

"We had started this on November 19, 2013 and within two years... yes we can... we have reached our goal. We are totally successful," she said. "I feel proud that the first three districts to be ODF are from West Bengal. We have Nadia, Hooghly and Burdwan and the fourth one is Rajasthan's Bikaner. So it's 3:1 ratio... We have bowled out everybody," the Chief Minister said.

Thanking UNICEF and the World Bank for helping the district achieve this feat,

Ms. Banerjee declared April 30 as the “Nirmal Bangla Diwas” to be observed in the years to come.

“Today we take the oath to keep West Bengal clean and build a Nirmal Bangla. I ask everybody to take responsibility for that,” she said. The Chief Minister presented the Nadia district administration, a memento and a painting prepared by her, which was received by the DM.

UNICEF India representative David McLoughlin congratulated the people of the district for achieving the goal and said, “It’s a commendable job done by you people. It shows that ODF is absolutely achievable. Your achievement will inspire others to make their places ODF.”

Keywords: Nadia district, open defecation free,

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[Indian government to introduce a Bill to unlock CAMPA funds \(Polity, Current Affair, DownToEarth\)](#)

 Photo: Forest Survey of India

The Union Cabinet, chaired by Prime Minister Narendra Modi, cleared a Bill on April 29 to unlock the compensatory forestation fund of Rs 38,000 crore, the use of which is currently being supervised by the Supreme Court. The Compensatory Afforestation Fund (CAF) Bill, 2015, will be introduced in Parliament during the

current session.

The proposed law seeks to provide an institutional mechanism, both at the Centre and in the states, to ensure “expeditious utilisation” of the amounts realised from diversion of forest land to non-forest purposes. As per law, the promoter of a project coming up on forest land needs to deposit an amount with the government for afforestation of non-forest land equal to the land diverted or of degraded forest land twice the area of land diverted. Besides, the project proponent also deposits a net present value of the forest in lieu of the non-tangible benefits lost with the loss of forests. Such amounts are currently kept in nationalised banks and are being managed by an ad-hoc Compensatory Afforestation Management and Planning Authority (CAMPA).

According to Supreme Court orders, only 10 per cent of the amount accrued with CAMPA is being released to the states for the fear of it being misused. States had been demanding the release of more funds from CAMPA. To address this demand, the government has come up with the new Bill. “These amounts would be brought within broader focus of both Parliament and State Legislatures and in greater public view, by transferring them to non-lapsable interest-bearing funds, to be created under public accounts of the Union of India and each state,” says a Cabinet press release.

The Bill intends to establish a National Compensatory Afforestation Fund (CAF) and state-level CAF to credit amounts collected by state governments in lieu of forest land diverted for non-forest purposes. CAF authorities will be created at the Centre and state level to control and manage these funds. As per the Bill, a monitoring group will also be established to assist the national authority in evaluation of activities undertaken from amounts released from the national CAF and state CAFs.

Killing a country's ecology (the hindu , ecology, Essay, Biodiversity)

he Environment Minister insists on clearing all hydro projects, even when the government itself earlier agreed that the Himalayas must be avoided for development work.

A battle of epic proportions between the hydroelectric power companies and the people of Uttarakhand has now culminated with the struggle shifting to the office of the Prime Minister of India. It began with the extraordinary and far-

sighted 2014 decision of the Supreme Court in the Alaknanda Hydro Power Company case, where the Court said it was concerned with the mushrooming of hydroelectric projects adversely affecting the Alaknanda and Bhagirathi river basins.

The cumulative impact of dams, tunnels, blasting, the construction of power houses, garbage creation, mining and deforestation on the eco system has not yet been studied. The June 2013 tragedy that affected the Char Dham area of Uttarakhand, where thousands of people were killed and there was massive damage to property, forced a rethinking on projects. It was now considered important to make a cumulative assessment of bumper-to-bumper projects, where the rivers of the Himalayas are diverted from their normal course and channelled into tunnels, released at a lower level, then re-channelled into another pipeline, which ultimately leaves the main course of the river without water. The mistake made in the earlier environmental assessments – treating each project as stand-alone without going into the cumulative effect of all of them – was questioned by the Supreme Court. The Court, therefore, ordered the Ministry of Environment and Forests (MoEF) to constitute an Expert Committee to study the cumulative effects of such projects on the environment, on the stability of the Himalayas, and their adverse effect on the Himalayan rivers.

Unreliable assessments

The Expert Committee's report is possibly one of the best ever made on the fragile ecology of the Himalayas. It almost unanimously found that Environmental Impact Assessment (EIA) clearances were unreliable, wrongly prepared, made on the basis of false information submitted by the Hydroelectric Projects (HEPs), and that the clearances, in some cases, were motivated. These clearances, therefore, could not be relied upon for the continuation of these projects.

The Committee concluded that EIA reports should be done by an independent agency and not by the project proponent, and said that HEPs had an irreversible negative impact on the environment.

Five of the six projects now being examined afresh are in the para-glacial zone, rendering them extremely hazardous. As the glaciers recede due to construction activity, the land exposed becomes unstable, and an unusual cloudburst could again result in tragedy. The adverse impact on rivers and water quality and on forests, biodiversity and wild life are set out in detail.

The scathing report of the Wildlife Institute of India that pointed to the devastation that would be caused to wildlife in the Himalayas was also relied upon. One chapter deals with the proximity of HEPs to national parks and eco-sensitive areas and the impact on these areas. The report responds to the classic defence of project proponents that they would do compensatory afforestation by concluding that such afforestation was poorly done. The Committee concludes that the negative impacts of HEPs cannot be mitigated. The blasting of rocks, creation of garbage, and the receding of glaciers are a concomitant of all industrial activity in the Himalayas and, if the Himalayas and the Ganga are to be saved, there is no way forward but to scrap such projects.

Government support

To its credit, the Union of India initially supported the Expert Committee Report, pointing out that even prior to this report the B.K. Chaturvedi Inter-Ministerial Group, the Planning Commission, the G.B. Mukherjee Task Force Report, the CAG report, the Neeri report, and the Geological Survey of India (GSI) report had all recommended that hydroelectric projects be severely curtailed as they destroyed the environment. The Union of India pointed out that the Gangotri Valley and the Valley of Flowers were in eco-sensitive zones. It agreed that the seven main Indian rivers ought to be kept pristine, that the Himalayas are weak, the rivers drying up, and, in 2013, as against the state claim of 65 per cent forest cover, the actual cover was only 46 per cent.

The Union said that earlier environmental clearances had to be reviewed and a cumulative environmental impact approach adopted, with sensitive areas in the Himalayas avoided for development work. Referring to the GSI report, the Union of India said the entire Ganga basin was in Seismic Zones IV and V, which carries the highest degree of catastrophe possibility. A reference was also made to the Planning Commission recommendation that the projects be decommissioned.

However, despite the Union of India's stand, the Minister for Environment and Forests, Prakash Javadekar, does not agree. He has made it his life mission to clear all projects, irrespective of their environmental impact. It is this attitude that has made India a country of toxic rivers, destroyed forests, declining groundwater resources, and the highest degrees of air pollution in the world. After the Union of India took a public stand that fully supported the findings and recommendations of the Expert Committee, Mr. Javadekar has set about clearing all projects. In typical bureaucratic style, a four-member Committee of Experts was appointed to make a report on a report. However, it did not play ball, pointing out that though environmental clearances were granted, the six projects studied would adversely impact aquatic and terrestrial biodiversity and the flow of the river.

They would impact the protected areas of the Nanda Devi National Park and Biosphere Reserve, the Valley of Flowers National Park (World Heritage Site), the Kedarnath Wild Life Sanctuary, and the Alaknanda III, Bhyundar and Dhauli Ganga biodiversity-rich sub-basins, which are the habitat of the rare and endangered Himalayan Brown Bear. The diversion of water through the construction of underground tunnels poses a serious risk to water life. The Committee of Experts unanimously noted that environmental clearances have to be reviewed and the six projects must not be taken up as they have the potential to cause a significant impact on the environment.

The future of the Himalayas and its rivers are at stake. Indeed, the future of India is in the balance. Within the government, well-meaning officials and Ms. Uma Bharti are fighting to clean up the Ganges, while Mr. Javedkar and his friends in industry battle to finish off what little is left of the Himalayas, its rivers and glaciers. The Prime Minister of India has to decide on which side he stands.

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Keywords: Alaknanda Hydropower Company Limited, hydroelectric projects in India

Tracking two growth stories (The Hindu , IR, Economy , Essay)

For India, achieving a sustained growth of 8 to 8.5 per cent over the next few decades requires pushing the reform agenda. If done, it can expect to grow faster than China and close the gap that has opened between the per capita GDP of the two countries

The long anticipated deceleration in the rate of the growth of China's economy is under way. Even the normally conservative World Bank and the International Monetary Fund (IMF) are confirming that its growth is slowing down and is likely to fall below seven per cent. Even those analysts who had forecast a deceleration in its growth were unsure about when exactly the slowdown would start.

In the 2000s, I had estimated that China's growth would decelerate below eight per cent, around the middle of the decade beginning 2010. The global financial crisis of 2008 sharply raised the probability that the slowdown would occur within the following decade despite risky efforts by China to prop up growth. In contrast, India was forecast to achieve its potential growth rate of about eight per cent, given its export-import neutral growth model. The surprise in India's case was the sharp slowdown from 2011-12, largely attributed to complacency and domestic policy mistakes. However, despite these mistakes, India's growth rate from 2002-03 to 2013-14 was among the 10 highest in the world (using the old data series). Though the correction of these mistakes may no longer be enough to restore growth to earlier levels, India can and must restore growth to the average rates achieved earlier. Again, this has been recognised by both the World Bank and the IMF. These two developments taken together, imply that India's trend growth rate is poised to exceed that of China's in the next few decades.

Closing the GDP gap

This will start the long, slow process of closing the GDP gap with China, which was 1.4 times India's real GDP (in absolutes) in 2013. There is a common tendency to confuse relative levels of GDP with growth rates, so it is important to understand that China's real GDP measured at purchasing power parity in 2011 international dollars is now 2.4 times that of India.

The two economies were almost equal at the end of the 1980s (China was 1.1 times that of India in 1990). During this period, its growth averaged 9.9 per cent per annum, 3.4 per cent points faster than India's 6.5 per cent average. Even if the growth gap was inverted (i.e. became -3.4 per cent), it would take double the time (i.e. 30 years) to close the GDP gap as it took to open it.

Growth slowdown

The basic theory and empirics of growth show that fast growing economies like Japan, South Korea, Singapore and Thailand, which grew fast when they were at

low or middle income levels of per capita GDP, maintained growth at high levels for one to two decades and then slowed down as their per capita GDP approached that of the (lower end) high income economies. In the case of China, the surprise was that it maintained an average growth of 10 per cent for 30 years, despite reaching middle income levels of per capita GDP about a decade ago. Many analysts who had been proved wrong in the 1990s, in their predictions of a China growth slowdown, became much more cautious. Those of us who were willing to take a reputational risk have been proved right, as China's economy slowed below eight per cent in 2012 and is now predicted to slow below seven per cent by the multilateral institutions.

The global financial crisis ensured that the growth of world trade would slow sharply below the very high growth seen in the previous decade, aided by a correction of the bubble-like growth seen prior to the crisis. This meant that China's (net) export-investment model was no longer sustainable and would produce slower growth in the 2010s. To delay this slowdown, China pumped large amounts of debt into the economy, with the official debt-GDP ratio rising from 55.2 per cent in 2008 to 88.1 per cent in 2013, an average increase of 6.6 per cent points of GDP per annum. Analysts have estimated that the debt in the shadow banking system may have increased by an equivalent amount, rising to dangerously risky levels. Based on a historical experience of such debt bubbles, some analysts predict that this bubble is likely to burst and reduce China's growth rate to the three to four per cent levels. Analysts, who have greater confidence in the ability of the Chinese Communist party to manage an economic crisis, nevertheless, predict a deceleration of the trend rate of growth to a range of five to seven per cent.

Comparing growth rates

Based on World Bank "World Development Indicators" data till 2013 (till which year the GDP base for 2004-05 was fully available), we can compare the growth rates of China and India. A plot of these rates shows that the growth rate difference has been narrowing since 1990, due to a gradual deceleration of China and a stronger acceleration of India. Underlying this narrowing growth difference are variables that are drivers of or correlated with GDP growth and productivity. These include foreign direct investment (FDI) and exports, which are indicators of competitiveness, and imports, which reflect openness. The difference between China and India's FDI-GDP ratio has been on a declining trend, from about 3.5 per cent of GDP in 1990 to a little over two per cent of GDP in 2013, suggesting slow but steady progress in attracting technology and risk capital, with a milder decline in China's attractiveness. The difference between China's and India's export-GDP ratio, which was eight per cent in 1990, averaged 18 per cent during 2005 to 2007 before narrowing rapidly to about one per cent in 2013, indicating that India's exports have held up to the global decline in world trade much more effectively than China's. The difference between China's and India's import-GDP, which fluctuated around an average of 7.1 per cent points between 1990 and 2007 declined dramatically to -5.2 per cent by 2011-13, indicating that the Indian economy is now significantly more open than China's.

Forecasting Indian growth

Analysis and forecasting of Indian growth has been confounded by the appearance of a new GDP series (2011 base) which has made some fundamental changes in methodology and data sources. As this new series provides less than three years of growth data, it is impossible to estimate the underlying trend growth rate (using this series). After the mid-year 2014 Budget, I had said: "The measures taken in the budget will be sufficient to increase growth by about 1 per cent

point over the last year's 4.7% to 5.7%. Actualization of some of the measures indicated in the budget will however be necessary to raise growth to the 6.5 to 7% range in 2015-16." Given that the average growth rate as per the new data is about one per cent point above that, using the new data, a projected growth rate of 7.5 per cent to eight per cent is quite conservative. This seems to be the reasoning underlying the World Bank's and IMF's projections for India's growth in 2015 and 2016.

The Central Statistical Organisation (CSO) has projected a growth rate of 7.4 per cent for 2014-15 and a growth acceleration to eight per cent in 2015-16. which would not be wildly optimistic. However, as many observers have pointed out, high frequency data such as the Index of Industrial Production (IIP) for manufacturing, quarterly results for companies, and tax revenues from excise and corporate income tax do not appear consistent with these high growth levels. I had argued that the global financial crisis and the consequent global demand recession and excess capacity have affected not only the export-led Chinese economy, but also the globally connected and competitive corporate sector of India (<http://goo.gl/r2sdYi>). Thus, post the global financial crisis, the Globally Connected and Competitive (GCC) corporations will lag overall recovery, instead of leading it, as they did in 2002-03 to 2007-08. Thus, all indicators connected with these companies, such as IIP, corporate profits, corporate and excise tax revenue would also lag the GDP recovery.

Based on the theory and empirical evidence provided by high growth economies, some analysts had predicted, since the 2000s, a slowing down of the Chinese economy during the decade of the 2010s to a rate of growth below that of India (<http://goo.gl/3iHrdH>). By making the export-investment-led strategy of development unviable, the global financial crises made this highly likely if not inevitable. It was also assumed in the forecasts that the Indian government would continue to carry out the minimum reforms necessary to maintain India's growth rate at an average of the previous decade. Because the Indian government was complacent and made policy mistakes between 2010 and 2012, the Indian economy faltered seriously. Some of the momentum has been restored after the corrections introduced in the last two years. However, a sustained growth of 8 to 8.5 per cent over the next few decades requires implementation of the reform agenda even though continuing sensitivity to shocks can derail growth given that the world environment is far from conducive to sustained high growth. If this is done, we should expect to see India growing faster than China and beginning to close the wide gap that has opened between the per capita GDP of the two countries.

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