India@Risk: A Briefing



Confederation of Indian Industry and Global Risk Network



Confederation of Indian Industry



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WORLD ECONOMIC FORUM

Foreword

The Global Risk Network of the World Economic Forum is an unparalleled network of industry, risk and regional experts who work with business leaders and policy-makers to:

- Create a framework for assessing and prioritizing existing and emerging risks to global business over the short and long term
- Alert key decision-makers to the impact these risks might have on their environments
- Assist leaders in their reflection on how risks may be mitigated at the global, regional, industry and company level
- Transform these global risks into business opportunities

To generate a global risk, an issue must have global scope, cross-industry impact, and there must be *uncertainty* as to how the risk will manifest itself (in regard to likelihood of occurrence and severity of impact). As such, these risks are distinguished from known key challenges, such as poverty alleviation.

Within the framework of 23 global risks identified by the Global Risk Network, six issues have been identified by CII and the Forum as being critical to the future of India, in terms of the likelihood of their occurrence and/or in terms of the severity of their impact.

The six issues profiled are:

- 1. Loss of freshwater (quantity and quality) Is India running out of freshwater services?
- 2. Oil peaks How vulnerable is India to an oil price shock? What oil price level would risk derailing India's growth?
- 3. Economic impact of demographics India is facing a demographic dividend. Might it turn into a demographic liability?
- 4. Globalization versus protectionism What happens if there is backlash or retrenchment from globalization?
- 5. Climate change, the environment and challenges to Indian growth Can India balance the complex trade-offs between the environment and growth?
- 6. HIV/AIDS and TB What will it take to combat the spread of HIV and TB? What if India fails?

This is not to suggest that other issues facing India are any less serious or less potent. In fact what this study does not propose to do is rank or prioritize risks for India. This is merely an analysis of some of the critical issues facing India, as per our assessment, and these six are dealt with in some detail.

A Confederation of Indian Industry and Global Risk Network Briefing

Executive Summary:

Loss of Freshwater (Quantity and Quality)

Is India running out of freshwater services?

Risk

- India has 18% of the world's population, but only 4% of the water resources. Increasing stress on freshwater services may exacerbate the country's health and humanitarian problems, constrict economic growth and lead to tensions between states, districts and users.
- Changing climate and urbanization patterns may accelerate stresses on existing freshwater resources; freshwater systems are vital to preserving land for agriculture and industry, as well as key ecosystem services including flood control.

Important Trends

- While 85-92% of people have access to drinking water, it is estimated that only 60-65% have ready access to quality drinking water.
- Per capita freshwater services are low and falling over time (see chart on next page; in contrast, availability in the US is 30,000 cubic metres).
- Availability is highly uneven: 70% of precipitation is delivered in four months and varies from 100 mm in the west of Rajasthan to over 10,000 mm at Cherrapunji in Meghalaya.
- The World Bank estimates that 21% of communicable disease in India is related to contaminated water; 400,000 children under five die of diarrhoea each year.
- Agriculture accounts for 80-81% of water use (irrigation), while industry accounts for 7-8% and drinking water accounts for 4-5%. There is increasing industrial demand for water (as a proportion of the % use) while the demand in rural areas is expected to increase sharply with development (N.B. while the volume of water used in irrigation will increase, its proportion of the total is falling).
- Most water supply systems now depend on groundwater; overexploited blocks are growing at an alarming rate of 5.5% per annum and 36% of India's blocks could face serious problems by 2018.
- 20% of the country has acute water problems which threaten communities and development.
- Climate change may worsen dry seasons and droughts, as well as weaken water retention in the variable monsoon periods (as 65% of agriculture is rainfed).
- Unregulated groundwater pumping is not only draining utility resources, but also depleting water tables across the subcontinent. In many regions, groundwater levels have fallen as much as 1-3 metres and 12% of India's aquifers are severely overdrawn.
- India's rapidly expanding urban centres are facing serious challenges, as inadequate supplies and ageing infrastructure stretch the resources of cashstrapped utilities.

- Social, political and economic tensions over access to quality water resources may cause short- and long-term damage to the business and investment climate in India.
- Degradation of natural freshwater systems will create the need for investment in water-related infrastructure, especially pumps and distribution systems, dams for flow management and treatment systems for drinking water, creating potentially billions in costs.
- If these investments fail, absolute growth and relative income disparities are likely to worsen.
- Floods and droughts affect vast areas of the country. One-sixth of the country is drought-prone. Floods affect an area of around 7.5 million hectares per year. An increasingly urbanized population will be vulnerable to new flood risks.

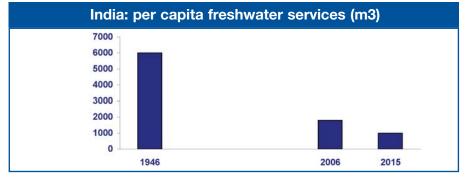
- While water is a state issue, and within the purview of various ministries, it would benefit from an integrated policy approach (e.g. by avoiding misuse of water due to local policies such as free electricity for irrigation and preventing development in flood-plain zones).
- Ground water resources should be managed so as not to exceed recharging possibilities and to ensure social equity. There is also scope for improving the performance of existing water resource facilities.
- New regulatory and governance models for water pricing and access are being adopted in many parts of India; effective pricing will spur innovation and free up government subsidies for investment in technology.
- Industry should be active in its approach to water and engage with the government to identify local strategies to conserve and recycle water. Private sector participation may introduce innovation and financial resources and improve service efficiency and accountability (e.g. public-private investment in watershed/river basin management).
- Adoption of efficient farming practices: e.g. reducing over-irrigation, rainwater harvesting and drip-fed agriculture may help mitigate problems in rural communities.
- As per the National Water Policy, non-conventional methods, frontier research and development, and traditional water conservation practices need to be explored further.
- Improvements in existing strategies and new techniques are needed to eliminate the pollution of surface and ground water resources. The principle of 'polluter pays' should be followed in management of polluted water.

Examples

- A multitude of new water pricing regimes and innovative programmes at state and local levels (e.g. rain water harvesting is mandated for certain complexes in Rajasthan)
- Hundreds of NGO-led watershed management projects
- Minimum needs programme/accelerated rural water supply programme
- Jawaharlal Nehru National Urban Renewal Mission

Recommended Resources

- National Water Policy, 2002 (http://wrmin.nic.in/policy/nwpolicy.htm)
- Ministry of Urban Development and Poverty Alleviation (www.urbanindia.nic.in)
- Ministry of Rural Development (www.rural.nic.in)
- Ministry of Health and Family Welfare (www.mohfw.nic.in)





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Executive Summary:

Oil Peaks

How vulnerable is India to an oil price shock? What oil price level would risk derailing India's growth?

Risk

- There is a divergence of expert opinion on the effect of an oil price shock on India: while high oil prices are government subsidized (and not directly passed through to consumers), India is a net importer of oil and is unlikely to avoid the impact of sustained high oil prices (especially if this triggers a global slowdown).
- In the short term, the risk is an oil price spike above US\$ 100/barrel sparked by geopolitical tensions or terrorism resulting in disruption to energy supply.
- In the longer term: sustained high oil prices (above US\$ 60) as the supply of refined products fails to keep up with demand growth; natural gas and electricity prices follow suit.

Important Trends

- India now ranks sixth in the world in total energy consumption and needs to accelerate the development of the sector to meet its future growth aspirations. Moreover, to achieve its ambitious goal of energy independence by 2030, India will have to more than triple capacity from 130,000 megawatts at present, to over 400,000 megawatts.
- India meets its energy needs 55% from coal and 32% from petroleum, with 70% of the latter imported (i.e. a little over one-fifth of total energy use). However, this is likely to increase as India's per capita energy use is 13.3 MBTU as compared to China's 33 MBTU (2002).
- While its hydrocarbon reserve is small (0.4% of world's reserve), India is rich in coal and renewable energy in the form of solar, wind, hydel and biomass.
- System stretch in the world's oil supply chain lack of spare capacity has left the system vulnerable to supply disruptions (from Iran, Nigeria, Venezuela, Russia, etc.).
- No consensus on the limits of oil production, though growing debate around the concept (and posited imminent reality) of peak oil with consequences for current energy models.
- A large part of the increase in world oil prices can be attributed to the emergence of a middle class in India and China.
- Falling energy intensity of GDP globally (including in Western states, though they remain main consumers); but demand growth driven principally by BRIC countries, which continue to have a higher energy intensity of GDP.

- India is particularly vulnerable to sustained external oil price and supply volatility. Energy shortages would act as a major barrier to India's development. To date, oil price increases have not adversely affected the Indian economy (largely due to the cushion provided by price subsidies, funded by the debt market). Nevertheless, possible fiscal impacts due to the lack of pass-through must be considered.
- Worldwide demand for oil is relatively inelastic, and sudden increases in price can cause major economic effects (every increase of US\$ 10/barrel shaves about 0.5% off global growth).
- Political pressures within India resulting from high energy prices.
- Shift in geopolitical power towards oil producing countries.
- Increasing interest in alternative energy sources: e.g. nuclear power, biofuel as well as alternative hydrocarbon sources from both a security and price perspective.
- Increasing interest in energy efficiency-enhancing technologies.

- India has the ability to reduce dependence on external oil and gas over the next 10 years (the incentive to do so increases at about US\$ 60-70/barrel). Choices available include new exploration for offshore oil and gas, as well as new techniques for extracting oil, the increased use of alternative energy (e.g. wind, solar, biomass) and more investment in research and development. This requires establishing an effective regulatory framework.
- As oil prices increase and domestic reserves dry up, there is an imminent need for India to form a regional strategy and better integrate into the global energy security architecture (e.g. there is a strong opportunity to partner on developing carbon sequestration technologies).
- Efficiency levels in India are at one-tenth of what they are elsewhere, so the prospects for improvement are great (especially in energy intensive industries). There is a need to invest in infrastructure (e.g. national highway system, distribution networks) as well as exploring market mechanisms for promoting energy efficiency and boosting productive capacity (e.g. better targeted subsidies).
- The choices available to improve energy security include enhancement of strategic oil/gas reserves, investment in equity abroad, enhancement of domestic oil/gas supply, diversification of sources of oil/gas imports and focus on critical supply infrastructure.
- Promote an international climate change mitigation framework along with domestic energy efficiency policies.

Examples

- The Electricity Act 2003 aims to create a liberal and competitive framework for development.
- Increasing government and corporate debate over the need for enhanced energy efficiency.
- Drive to further integrate energy policies around energy security principles.
- G20 discussions on energy security and the Gleneagles Dialogue on Climate Change.

Recommended Resources

- Ministry of Petroleum and Natural Gas (www.petroleum.nic.in)
- Ministry of Non-Conventional Energy Sources (www.mnes.nic.in)
- The Energy and Resources Institute (www.teriin.org)

India's share of global hydrocarbon reserves: 0.4% Share of Indian energy produced from coal: 55%



A Confederation of Indian Industry and Global Risk Network Briefing

Executive Summary:

Economic Impact of Demographics - Challenges to Indian Growth

India is facing a demographic dividend. Might it turn into a demographic liability?

Risk

- India has a relatively youthful population (13% old-age dependency ratio); thus fiscal challenges arising from ageing will take some time (10-25 years) to manifest themselves.
- In the short term, India faces the immense task of feeding, educating and employing its youthful population. The management of this will determine whether India enjoys a 'demographic dividend' or faces a 'demographic liability'.
- In the long term, India faces the opposite challenge: that of an inadequate pension system (with limited coverage) which could become a fiscal and social time bomb if effective policy action is not taken.
- The pace of change poses significant adjustment costs and risks to policy-makers (e.g. it took 120 years for the 60+ population to double from 7% to 14% in France versus 25 years in India), particularly given fiscal constraints (consolidated fiscal deficit was 7.7% of GDP in 2005-06).

Important Trends

- Employment for 71 million additional persons has to be created in the next five years. Currently the manufacturing and services sectors are not able to create enough jobs, and 60% of the workforce depends on agriculture, which contributes only 20% to GDP and is expected to decline to less than 15% in the next five years at the current pace of growth.
- The working age population is likely to be 800 million by 2016, and this is likely to pose enormous challenges in terms of providing adequate education and employment opportunities.
- Much of the population growth comes from the poorest states of Bihar, UP, MP (so called BIMARU states) and Orissa, and there is large-scale migration in search of economic opportunities (especially to the cities, which are already choking up).
- Literacy rates have risen considerably (the 2001 census recorded rates of 65.38%, up from 51.63% in 1991). However, a quarter of India's population still live below the poverty line, with some two-thirds (or almost 800 million Indians) in rural villages; most of them live off the land in small farms with little access to new technology (e.g. as of 2001, over 400 million Indians were still living without electricity).
- Despite its youthful population, India's size means that it is home to the second largest number of older people in the world (after China).
- The Indian population will continue to grow over the next 50 years, albeit at a lower rate. The country is undergoing the same forces of demographic transition that have been experienced elsewhere, only delayed by a few decades. In 2050, India's population structure will mirror that presently found in major industrial countries.

Table 4 : Age Composition as Percentage of the Total Population					
Year	Below 5 years	Between 0-15	Between >15 - 59 years	+ 60 years	
1991	12.8	37.76	55.58	6.67	
2001	10.7	34.33	58.70	6.97	
2011	10.10	28.48	63.38	8.14	
2016	9.7	27.73	63.33	8.94	

Consequences

- In the short to medium term, social unrest could become a major issue if the growing inequalities in access to education, work and opportunities are not addressed.
- In the long term, ageing increases fiscal pressures through higher government spending on healthcare, social security and other welfare programmes (India will face much greater fiscal stress after 2015). Currently, only about 11% of the current working age population participate in mandatory, formal programmes designed to provide income security after retirement. By implication, more than 85% of workers have little ability to save for old age.

Mitigation

Expanding the provision of primary formal and non-formal education to realize the goal of Universalization of Elementary Education (UEE).

- Vocational training and skill development need focused attention and investment. Only 2% of the rural workforce has received any kind of formal training.
- Public pension reforms and health insurance will have to play a key role in alleviating the long-term fiscal burden provoked by ageing (e.g. an international contribution system defined by best practice). The cost would be relatively low (around 1% of GDP).
- Notions of old age and retirement have to change (e.g. extension of the retirement age which is fixed at 58 in most government jobs). In these matters, the elderly must establish a voice (like the Grey panthers in Nordic countries).

Examples

- India's Sarva Shiksha Abhiyan programme of total universal primary school coverage is proving very successful. Innovative ways to impart education and increase enrolment have been adopted in different areas.
- OASIS (Old Age Social and Income Security) project commissioned in 1999. The project recommended a simple and convenient pension system.
- The NPOP (National Policy for Older Persons), announced in 1999, encourages individuals to make provision for their own retirement.
- The Skills Development Initiative of CII develops and spreads the much needed, internationally benchmarked, occupational skills among India's current and potential workforce.

Recommended Resources

- Confederation of Indian Industry (www.ciionline.org)
- United Nations Development Programme (www.undp.org)
- Ministry of Human Resource Development (www.education.nic.in)
- Ministry of Panchayati Raj (www.panchayat.nic.in)



A Confederation of Indian Industry and Global Risk Network Briefing

Executive Summary:

Globalization vs Protectionism

What happens if there is a backlash or retrenchment from globalization?

Risk

- The world may be becoming more interconnected in terms of technology and economic interdependence, but the core issues that can divide people and nations have not abated.
- Indian elites have become more globally interconnected, but the poor and lower middle class are still disconnected and not feeling the benefits of globalization and liberalization. The mismatch of interests and/or perceptions of globalization, if negative, could lead to an endogenous backlash, protectionism and social and political tensions (e.g. naxalism in the regional pockets of India).
- Alternatively, exogenous protectionism (e.g. WTO/Doha Round stalling, EU agricultural subsidies) and any retrenchment from globalization by the EU or US could trigger a global slowdown, with severe economic and political impacts (particularly in developing countries like India).
- Divergent views: Some experts see a reversal of globalization as a key risk, while others posit that India is well shielded by virtue of its low share of world trade, huge international diaspora and success in becoming an ICT hub.

Important Trends

- Since India's independence, ancient societal traditions have increasingly converged with modern influences, and India has become progressively more internationally integrated.
- Reforms in the 1980s and 1990s helped drive substantial economic growth and reduction in poverty and emergence of a middle class, numbering 300 million. India now has aspirations to be a major global player (though still only accounts for around 1% of global exports).
- In the last 10 years, public opinion in India seems to have shifted a little more in favour of globalization, as the benefits become better understood.
- India's widely reported Gini index of 33 (compared to 45 for China) probably underestimates actual inequality, as Indian data focuses on consumption and not true income. Wealth inequality, measured in terms of asset distribution, is very high (see graph).
- There are also striking disparities across states and regions, with some poorer states trapped in a vicious cycle of flat or negative growth in GDP per capita.
- Real progress has been made in the 'new economy' telecommunications sector, but low end labour-intensive industries are not creating the broad-based employment growth required. In addition, the overall poor condition of India's infrastructure impedes growth.
- In the West, cultural protectionism and conservative, value-based ideologies are on the rise, potentially reducing the appetite for trade liberalization and labour market reforms.

- Short-term economic distortions and pitfalls of globalization, such as rising inequality (perhaps made more obvious by better IT infrastructure) could trigger a social backlash against globalization. N.B. Some believe that inequalities are not that high. Others assume they are growing. In the end, what matters are issues related to the perception of unfairness.
- The social consequences of a globalization backlash are not clear or consistent in the Indian context, or indeed globally.
- Any backlash would reduce the appetite for FDI in India among foreign investors/companies.

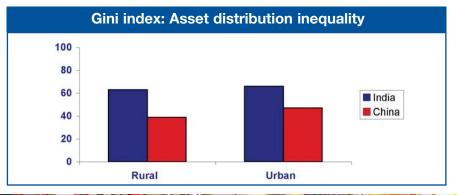
- The main driver for social unrest is seen as poverty and deprivation: Reducing unrest and extremism will depend on a strong and well distributed GDP. There are five main impediments: (1) regulatory regime, (2) infrastructure, (3) lack of skills (only 1.2 million people work in the high-skilled IT industry), (4) slow pace of state reforms (especially on health and education), (5) stark income and consumption inequalities (equitable distribution of income should happen in a way that creates capacity and asset building and not fuel consumption). The economic success of globalization should be shared through all regions and classes.
- Policy setting in relation to poverty alleviation would benefit from an increase in NGO and corporate participation in government decision-making.
- India also needs to promote economic liberalization and democratic processes as part of India's trade and foreign policy to act as a role model among developing nations.
- More flexible labour regimes would encourage more employment in the organized sector. Focus should be on those sectors which are more labour intensive (e.g. manufacturing and SMEs that hold more employing capacity).
- Deepen the relationship with the EU and US in trade, security and knowledge transfer to expand the global free market.
- Promote Asia as a driver of global economic growth by strengthening multilateral trade and investment relations within the region (e.g. strengthen SAARC and Indo-Pakistan relations).
- Make India a knowledge hub by using information and communication technologies across all aspects of Indian life (e.g. distance learning, remote medicine), investing in education, encouraging innovation and research, and enforcing intellectual property rights.

Examples

- Technological progress: computerization of land-holding records in some states of India.
- Special Economic Zones (SEZs) have been set up to fast-track investment but are controversial and need improved guidelines to avoid distortions in the system and ensure long-term success.

Recommended Resources

- Indian Council for Research on International Economic Relations (www.icrier.org)
- Confederation of Indian Industry (www.ciionline.org)





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Executive Summary:

Climate Change, the Environment and Challenges to Indian Growth

Can India balance the complex trade-offs between the environment and growth?

Risk

- Direct human and economic impacts of anthropogenic climate disruption in the form of extreme weather events, drought, increasing food insecurity, disease and population displacement.
- Indirect impacts of global climate change could have dramatic effects on demand and investment patterns, as well as interrupting business operations and supply chains.
- Opportunities will be created by the need for new investments, for example, in alternative energies and carbon storage.

Important Trends

- Trends in India's climate change risk depend on global drivers: global hydrocarbon consumption (currently above trend despite high prices) and deforestation. Both are systemic and entrenched. Current scientific literature argues convincingly that warming and its effects are taking place more rapidly than previously believed.
- Mean surface temperature in India has increased broadly in line with the global trend.
- In 13 districts in Andhra Pradesh the incidence of drought has doubled in the last 20 years.
- Glacial retreat on Indian mountains is obvious.
- Some indications of decline in the southwest monsoon in the latter half of the 20th century, though the long-term trend remains unclear. Risk remains that disparities in land and sea warming could disrupt the monsoon system.

- In 'baseline' global scenario of doubled atmospheric carbon concentration, regional temperature rises of 2-5° C exacerbate food, water and weather insecurity. Effects are disproportionately borne by the poor. While growth may slow, the largest consequences may be distributional and humanitarian and may lead to a backlash against current economic policies.
- Impact projections for India suggest more intense rainfall and the potential for increased flooding in rainy seasons, with risk of severe drought in drier seasons in the coming 50-70 years. Significant vulnerability exists due to economic dependence on rain-fed agriculture.
- Any increase in the frequency and severity of cyclones will affect coastal communities and infrastructure (7,000 km of coastline). Moreover, a rise in the sea level could cause displacement (e.g. eastern state of Orissa) and salinization of ground water. What happens if large regions become 'uninsurable'?
- Growing coastal and urban populations add to flood risk. Flood risk may also be exacerbated in the western Himalayan region by snowmelt.
- Effects of climate change on global demand and investment patterns will only become clear over the next 15-50 years
- India is potentially well positioned for both foreign and domestic investment in climate change mitigation (e.g. sinks and biofuels); though lack of clarity on long-term policies may hamper progress.
- Participation in the post-Kyoto framework for emissions reduction remains uncertain, but international pressure is sure to increase with Indian emissions. Potential as a home for mitigation and development of leapfrog economy (distributed energy systems, biofuels, service-centric output) may mitigate this pressure.

- India's primary contribution to emissions reductions is likely to come as a home of Clean Development Mechanism (CDM) projects, of which India has over 400 project approvals. There is scope for increased private and public sector involvement in CDM initiatives.
- Regional and national mitigation strategies will focus on adaptation, including decreased dependence on rain-fed agriculture, primarily through water harvesting; advances in drought-resistant crops; improved water markets and pricing; enhanced flood and other disaster risk reduction strategies, including community education, land use management, and infrastructure monitoring and protection.
- Indirect economic impacts are best mitigated by strengthening India as an investment centre, diversification of economic activity and cooperation with global accords.
- Impacts of domestic emissions reduction regimes are best mitigated by upfront investment in leapfrog technologies and low-carbon development.
- Global mitigation will focus on a 'post-2012 framework' for emissions reductions and atmospheric carbon stabilization. Benefits, if successful, will be seen from 2050-2100 and warming will continue until that point.

Examples

- Planning commission directive on biofuel adoption.
- Ongoing participation in CDM projects.
- Engagement with the global dialogue (e.g. G20 Gleneagles Dialogue on Climate Change).
- CII Centre of Excellence for Sustainable Development initiatives.

Recommended Resources

- Ministry of Environment and Forests (www.envfor.nic.in)
- National CDM Authority (www.cdmindia.nic.in)
- Intergovernmental Panel on Climate Change (http://www.ipcc.ch/)
- Hadley Centre for Climate Prediction and Research (http://www.metoffice.com/research/hadleycentre/)
- National Center for Atmospheric Research, USA (http://www.ncar.ucar.edu)
- Pew Climate Center (http://www.pewclimate.org)
- The Carbon Trust (http://www.thecarbontrust.co.uk)
- The Energy and Resources Institute (www.teriin.org)
- Confederation of Indian Industry (www.ciionline.org)

Coastline exposed to sea level rise: 7,000 km
Districts in Andra Pradesh where drought has doubled over 20 years: 13
Number of Clean Development Mechanism project approvals: 400



A Confederation of Indian Industry and Global Risk Network Briefing

Executive Summary:

HIV/TB

What will it take to combat the spread of HIV and TB? What if India fails?

Risk

- India has the highest burden of both HIV/AIDS and TB pandemics, with official estimates of between 5.1 and 5.7 million people infected with HIV and 1.8 million cases of TB, with most adults in the productive age group. Some sources claim that, due to gross under-reporting, the problem is at least twice the official estimates (i.e. 10 million plus HIV infections).
- HIV and TB are twin epidemics: HIV is the most powerful risk factor for progression of latent TB infection to the disease, and in a reciprocal manner, TB accelerates the progression of HIV into AIDS reducing the chances of survival
- HIV and its prevalent co-infections (e.g. TB, Hepatitis B/C) have deep social and economic roots; impacts go far beyond the health sector, with potentially significant socio-economic consequences.

Important Trends

HIV/AIDS

- HIV/AIDS was estimated to have caused 3% of all deaths and 17% of deaths due to infectious diseases in India in 2002. The disease has now gone beyond high risk groups (sex workers, drug users).
- If current HIV/AIDS trends continue, by 2033 HIV could account for 17% of all deaths and 40% of deaths from infectious diseases in India.
- India's Office of the Registrar General and Census Commissioner recently released demographic projections, estimating that there could be 11 million deaths due to HIV in India between 2001 and 2026.
- A joint report by the Asian Development Bank and UNAIDS estimates that HIV/AIDS could slow poverty reduction goals in the region by 23% every year between 2003 and 2015.
- Controversy exists over the methods and results of a recently released report by NCAER, NACO and UNDP. The report states that if no action is taken over the next 10 years, "economic growth could decline by 0.86 percentage points over the period and per capita GDP by 0.55 percentage points. According to the model projections GDP at 2002-2003 prices would decline in 2015-2016 by 11,097.93 billion rupees" (equivalent to US\$ 237 billion).

TB

- Direct cost of TB in India annually is estimated at US\$ 300 million and indirect cost is US \$3 billion.
- The recent emergence of a deadly new strain of TB in Asia, Africa and eastern Europe, called XDR-TB (Extreme Drug Resistant TB) mostly in HIV positive people, has shown the grave consequence of the co-epidemics fuelling each other.

- Can hamper economic development by reducing workforces, diminishing productivity and cutting household incomes.
- Interrupted or improper treatment of the diseases leads to drug resistance.
- Very high costs of next line drugs.
- Focus research and development on improved drugs for fighting co-infection.

- India's prevention programme is good (e.g. DOTS centres), but must be developed further in line with those in place in Brazil, Thailand and South Africa.
- Key risk mitigation factors include: (1) mutual coordination of HIV and TB programmes, along with more involvement of NGOs in policy setting; (2) positive prevention and risk awareness still very low in India; (3) stronger involvement of the private sector (e.g. through CII, which plays an increasing role).
- Demands a mix of well-integrated actions, some designed for rapid impact (to prevent future infections) and others focused on building long-term capacity and sustainability (e.g. economic development, microfinance and literacy as the poor and uneducated are most vulnerable to HIV).
- Awareness could be further strengthened, through school programmes, workplace programmes, etc. Better awareness among women is essential since they can play an important role in prevention.
- Private and public sectors should work together more effectively to find and implement creative solutions, with India as a partner in research and development (e.g. co-prevention of HIV and TB), not just a testing ground for the drugs.

Examples

- Practical and successful community reach-out models could be scaled up (e.g. Continuum of Care).
- DOTS centres have proven to be a successful concept, though more are needed.

Recommended Resources

- Ministry of Health and Family Welfare (www.mohfw.nic.in)
- Confederation of Indian Industry (www.ciionline.org)
- National AIDS Control Organization (http://www.nacoonline.org/)

"HIV/AIDS could slow poverty reduction by 23% every year..."



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A facilitator, CII catalyses change by working closely with government on policy issues, enhancing efficiency, competitiveness and expanding business opportunities for industry through a range of specialized services and global linkages. It also provides a platform for sectoral consensus building and networking. Major emphasis is laid on projecting a positive image of business, assisting industry to identify and execute corporate citizenship programmes.

CII's theme of "Competitiveness for Sustainable and Inclusive Growth" reflects the Confederation's commitment to balanced development that encompasses all sectors of the economy and all sections of society, at all levels – Global, National, Regional, State and Zonal.

With 57 offices in India, 7 overseas in Australia, Austria, China, France, Singapore, United Kingdom and USA, and institutional partnerships with 240 counterpart organizations in 101 countries, CII serves as a reference point for Indian industry and the international business community.www.ciionline.org



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