RESPONSIBILITY
to the FUTURE

business peace sustainability

26-28 June 2008, Mumbai, India

Conference Report

Strategic Foresight Group

Smt. Pratibha Devisingh Patil, President of India, inaugurates the conference.

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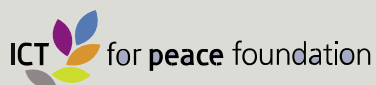
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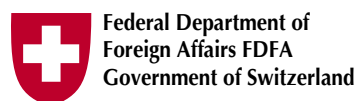
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**We sincerely thank the Chief Minister and
Government of Maharashtra.**

RESPONSIBILITY to the FUTURE

business peace sustainability

26-28 June 2008, Mumbai, India

Inauguration by
Honourable Smt. Pratibha Devisingh Patil
President of India

Inaugural Ceremony

Presided over by
Mr S C Jamir
Governor of Maharashtra and Goa

Guests of Honour
Mr Vilasrao Deshmukh
Chief Minister of Maharashtra

Mr R R Patil
Deputy Chief Minister of Maharashtra

Keynote Address:
Closing Plenary

Mr Sushil Kumar Shinde
Minister for Energy, Government of India

Concluding Remarks:
Closing Dinner

Mr Abhijeet Pawar
Publisher, India & Global Affairs

Conference

Conference Leaders
Mr Sundeep Waslekar
President, Strategic Foresight Group

Mr Kumar Ketkar
Chairman, Conference Organising Committee

Dr Arun Sawant
Ag. Vice Chancellor, University of Mumbai

Mr B P Bam
Director, Purushottam Academy

Mr Sunil Karve
Vice Chairman, Mumbai Education Trust

Ms Ilmas Futehally
Vice President, Strategic Foresight Group

Conference Chair
Mr Steve Killelea
Founder, Global Peace Index

Co-Chairs
Sir Mark Moody-Stuart
Chairman of United Nations Global Compact Foundation,
Chairman of Anglo American PLC

Ms Maria Cattaui
Vice Chair, International Crisis Group,
Former Secretary General of International Chamber of Commerce

Ambassador John Maresca
Rector, United Nations University of Peace

Mr Chandrasekhar Bhave
Chairman, Securities and Exchange Board of India (SEBI)

Compere: Dr Sanjay Deshmukh
Technical Co-ordinator: Mr. Shyam Digamber
Report Writer: Ms Kumud Chandra

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Key Conclusions

President Pratibha Patil, Chief Minister Deshmukh, Sundeep Waslekar, Steve Killelea

■ **A comprehensive assessment of energy mix:** We need a comprehensive understanding of the kind of energy mix we need for the future, at the global and national levels. Shortage of energy as compared to the growing needs of development is a reality. However, it is necessary to understand what kind of energies will best serve the objective of sustainable development, relative costs and benefits of alternative energy mixes, and a public discussion on optimum mix. Such a comprehensive assessment should also pave way for an integrated approach to the management of energy at the global level. Currently, there are institutions that influence the supply, development and regulation of specific kinds of energy sources but there is no single platform for an integrated management of alternative sources of energy. It is necessary to undertake futuristic assessment of alternative energy mix and an examination of the governance of energy sector from an integrated perspective.

■ **A global fund:** It would be extremely useful to create a fund drawing from sovereign funds and other resources of several countries to invest in sustainability and to support breakthroughs in environmental technologies. Such a multi-country fund would support fresh R&D with an international perspective, beyond the narrow priorities of any one country, and governed under the supervision of globally respected leaders of technology. It would invest in those companies that are willing to commit their own resources to explore breakthroughs in renewable energy and green technologies.

■ **Special processes to complement the current architecture of global governance and to overcome its weaknesses:** Since the present institutions of global governance do not fully reflect contemporary realities, it is necessary to strengthen and complement them by special dialogue forums. It is necessary for the United States and China to engage in a dialogue on global issues to explore agreements, which can permeate through the international system. Similarly, it would be useful to have a forum where Heads of Government from large countries in the North and the South meet annually to explore common strategies on critical global issues and then take such a shared understanding to the international system.

■ **Investments in peace education and peace NGOs:** It is necessary to encourage financial investments in educational programmes and civil society institutions that promote a culture and practice of peace on a large scale. It is necessary to create capacities to study the relationship between peace and economics. It is also necessary to expand and strengthen ground-level capacity to create peace and resolve conflicts. In this context, it would be useful to have cooperative programmes between universities and NGOs.

■ **Capacity-building for anticipation of humanitarian crisis:** There is an urgent need to create foresight and anticipation capacities to project future humanitarian crisis resulting from climate change, water shortage, energy shortage, and other long-term problems of sustainability.

■ **Mobilisation of young people for sustainable development:** There is a potential to tap the large voluntary reservoir of high school and college students around the world for engaging them in solving problems of poverty mitigation, peace and environmental sustainability through co-curricula activities in local communities. This will require the establishment of training centres to train the trainers who can impart training for students in high schools and colleges. Similarly, it would be useful to have programmes for training young politicians, who tend to have a multiplier impact in the society.

■ **Initiatives by state governments:** Provincial and local governments can launch initiatives for innovation in peace and sustainability, particularly including the development of clean technologies for the benefit of the poor people. One possible strategy could be to create innovation parks where provincial governments, international venture capital funds as well as development agencies and technology pioneers come together to develop new technologies – with each party bringing in its respective strength.

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Inaugural Address

Inaugural Address : Smt. Pratibha Devisingh Patil, President of India

I am happy to inaugurate the Conference on "Responsibility to the Future: Business, Peace, Sustainability", which I understand would be looking at issues that could impact the future of mankind. I congratulate the foresight of the organizers for convening this meeting.

In the contemporary world, technology horizons are expanding at a faster pace than ever before, providing unparalleled opportunities for the creation of wealth and of prosperity. At the same time issues of poverty, terrorism, natural disasters, pandemics, energy security, food security and climate change confront mankind. Will the discoveries of science and increased global wealth, be deployed for improving living standards of the entire global population and for preserving the planet and life on it? How effectively will these challenges and issues be addressed? The approaches adopted in this regard will be fundamental for the peace, development and sustainability of the future.

The beginning of the new Millennium and the 21st century saw the coming together of the leaders of the world at the United Nations. There was consensus among them that many of the development issues - poverty, hunger, disease, ignorance and environmental sustainability – require collective action. They recognized that poverty anywhere was a threat to prosperity everywhere and that sustainable development could not be achieved by individual nations; it was a collective enterprise. Their deliberations led to a common vision of a shared future and to an agreed set of universal goals for the welfare of humanity - the Millennium Development Goals. This was the dawning of a new age. The challenge now is for the global partnership to deliver outcomes by the 2015 target date. The important part is that the financial resources and technologies committed to developing countries are made available to meet the Millennium Development Goals. Accomplishing this will convey an unequivocal message that working together constructively, the international community can succeed in making the world a better place.

Globalization, driven by international trade and investment and aided by Information Technology, has dramatically affected global thinking. Interaction between peoples and countries is not new but technological developments have taken it to new scales and heights. More countries are now integrated into a global economic system, in which trade and capital flow across borders. How can we make the system work effectively for development? India believes that the international trading regime must take into account the concerns of the developing countries and deliver on the promises made in the Doha Development Agenda.

World Domestic Product reached a level of more than US$ 48 trillion in 2006 but, along with the increase, the distribution of wealth and income is becoming even more distorted. Two percent of the world's richest people own more than 50 per cent of the world's wealth, while the poorest 50 percent of people own one percent. This situation is unsustainable. Such a large proportion of the world's population cannot be left on the periphery. We need to have a process of inclusive globalization, one which as is said, "will lift all boats in its tide". This should not remain a mere slogan but strategies and practical steps must be taken. Disparities have to be addressed within nations also. We, in India, have adopted an inclusive approach so that the benefits of our growth touch the lives of all. Correcting disparities would also mean looking at women issues. They constitute half of the world but their potential remains largely untapped. They must be drawn into the process of development. Without women empowerment and their participation in all areas of human activity, there cannot be sustainability in any sphere of human endeavour.

The structure of global institutions merits our attention in the context of inclusiveness of governance. United Nations and the Bretton Woods Institutions were set up in the post Second World War period in the 1940s as a reflection of the then world. That world has changed and these institutions must also change to reflect the realities of the contemporary world. New players, who

can contribute solutions to global problems, should be accommodated. The global governance structure needs to be more democratic and more representative of all the people of the world, with a greater voice for the developing countries.

Science and Technology have changed the concept of physical distances. However, the extraordinary impacts of Science and Technology in the past 25 years will seem slight compared with what is likely to happen in the next 25 years. Bio-technology, nano-technology, robotics, genetics, space technology are advancing rapidly. What will it mean for our way of life on earth? Will there be negative fallouts? Will the new technologies be channelised for global welfare? How will the technological divide be bridged? If we are to measure scientific progress based on patents that are granted, the picture across the world is already very uneven. In 2005, seventy four percent of the patents granted worldwide originated from the United States, Republic of Korea, Germany and France. There is, however, no effective mechanism for the transfer of technology from the rich nations to the developing world. Can we look at the possibility of relaxing intellectual property rights under certain conditions, like has been done in the case of public health in the World Trade Organization?

Our planet belongs to all of us and to sustain it as well as to preserve it for future generations requires action by all of us. On the one hand, we face the impacts of environmental damage caused by industrialized countries who have reached high levels of prosperity over the past 150 years or so. On the other hand, there is poverty and the poorest in the world face the worst impacts of climate change, even though they have had hardly any share in causing this problem. How are we to deal with this challenge? These are the equity dimensions of climate change and cannot be ignored in working out a fair burden sharing arrangement. At the global level, mitigation actions will need to follow the principle of "common but differentiated responsibility" and "respective capabilities". Countries must fulfil their respective international obligations. At

the same time, the imperatives of adaptation to climate change assume urgency, calling for energy efficient technologies, pollution control, water conservation and waste management. It is time to look at our consumption and production patterns. Production processes should reduce wastage while consumption should not be extravagant. As Gandhiji said, "The earth provides enough to satisfy every man's need, but not every man's greed". Is it time to adopt an ethical approach that abjures greed?

Water-stress situation will be a likely scenario of the future. We should be looking at water-saving technologies that will use minimum water for household, agricultural and industrial purposes. As water is becoming a scarce commodity, we should be looking at cost-effective technologies for desalination of sea water. Human society possesses the necessary capabilities and economic strengths for the development of new and advanced conservation and environment friendly technologies. Can we take urgent action in this direction and bring into rapid use the new technologies across the globe?

We also need to examine how the energy demand of the world can be met. Oil prices have touched US $ 140 per barrel from levels between US $ 12 to 23 in 1998-1999. The high oil prices have an impact on the global economy, on oil importing countries and on individuals. High price levels have brought forward the debate of finding alternative sources of energy. Can it be bio-fuel? This would require deep analysis. Converting world grain into ethanol will reduce food quantity available for human beings, in a scenario where global population is increasing. Where does the solution lie then? We need to look at energy mixes that are sustainable. Renewable sources of energy - wind, solar, tidal, geo-thermal and hydro as well as nuclear energy are sources, which are cleaner sources of energy.

Fear of food insecurity and hunger is looming large. Current estimates indicate that the recent price hike in food grains has pushed about 100 million additional people closer to hunger and malnutrition. At the

"A large proportion of the world's population can not be left on the periphery. We need to have a process of inclusive globalisation." Smt. Pratibha Devisingh Patil, President of India

Conference on World Food Security in Rome this month, it was recognized that the current prices had highlighted the fragility of the global food system and its exposure to shocks. In the 1960s – we, in India, waged our battle against hunger and we became self-sufficient in food grains because of the Green Revolution. For stable food security, there is need now for a new round of Green Revolution all over. The agricultural research system of the world should be re-vitalized and efforts stepped up for developing scientific solutions for increasing agricultural productivity, including rain fed agriculture, particularly in drought-prone areas and also improving food grain storage facilities.

World population is expected to cross 9 billion by 2050 and the majority is likely to live in cities. Such a heavy concentration in urban habitats would require detailed planning to prevent problems of congestion and to make available civic amenities, including in slums which invariably accompany the urbanization process.

Undertaking the task of development necessitates an environment of peace and stability. Today, the scourge of terrorism confronts us. Technology has created well-linked networks of terror around the globe. No nation or society can proceed on its path to development under the fear of attacks which would put to risk innocent lives. There can thus never be a compromise with terrorism. The international community needs to intensify its cooperation to combat terrorism.

Peace also demands dialogue, which always promotes better understanding of the perception and sensitivities of each others' cultures and traditions. The diversity of culture is an expression of the customs and the historical experiences of humans inhabiting different parts of the world, but binding them all together are basic human values, which have sustained civilizations throughout history. We should encourage people-to-people contacts, including educational and cultural exchanges as components of a dialogue process between the peoples of the world. We must also promote a culture of non-violence. This will contribute to building a more harmonious world. The message of Mahatma Gandhi

of truth and non-violence is extremely relevant. The decision of the international community to celebrate 2nd October every year as the International Day of Non-violence is an important step. We need to look at how this concept can be carried forward further.

To build a more peaceful, prosperous and equitable world, a large number of stakeholders would have to play a role. Government policies for the welfare of their people should be implemented with vigour. International institutions should look at developing effective delivery mechanisms for the implementation of internationally agreed goals. The corporate world has a social responsibility. Along with business, they should be involved in undertaking social welfare initiatives. Civil society and the NGOs have emerged as important stakeholders and should function in an accountable and transparent manner. It will only be through these collective efforts that we will be able to face challenges and avail of the opportunities that arise.

Just as we work for sustainable development in the world, we as individuals also seek a holistic and balanced life. And just as a person has cultural, intellectual and spiritual needs besides material requirements, so also do nations and the global community. Individuals living in harmony with themselves and nature will contribute to making the world a peaceful place. I understand that Bhutan looks at itself not only from the perspective of per capita Gross National Product but from Gross National Happiness. Is not this a better measure of human progress?

I will conclude by saying that nature is kind to us but only we have to understand how we must act. As a shloka in our ancient scriptures states:

Trees do not eat their own fruits,
Rivers do not drink their own water,
Cows give milk for others to drink,
So also enlightened people use their lives for helping others.

We are at a crucial time in history. We cannot move recklessly into the future. It is time to pause and think as some critical choices are required to be made. I wish the conference success in its deliberations.

Leaders' Dialogue

Poul Engberg-Pedersen, Michael Nobel, Maria Cattaui, Lou Marinoff, Monty Jones

The primary goal of the dialogue was to identify the major challenges for the world of today and tomorrow. The following issues were identified at the top of the agenda for the next decade.

- Energy, environmental degradation, climate change, food and water shortages.
- Need for inclusive development processes and the achievement of Millennium Development Goals.
- Governance, human attitude, education and the role of technology

Energy and its future avatars have emerged as a unanimous area of concern. One of the key problems of the world today is the dependence, rather overdependence of the population on oil, natural gas and on other non renewable sources of energy. The emphasis should be on decreasing the role and importance of petrol in our world. Thus, the role of alternative, renewable and clean sources of energy is essential. Not only would these sources reduce dependency on fossil fuels but also pave the way for a cleaner environment, reducing the dangers of climate change and global warming.

Education has also been identified as an important tool in the creation of a better future. A new system is needed, a system where people understand that they are valuable components and have something to offer to the society. This would enable human beings to live constructively. The importance of tolerance for diversity in cultures is another factor that needs to be incorporated in the new paradigm for education. Tolerance thus has to become the new watchword.

Population growth and control was identified as another key challenge for world of today and tomorrow. Especially in the context of Africa, the established demographics theory that the global population will level out in the near future is not working. According to statistics, the population of the African continent has been increasing steadily in the past and the trend looks all set to continue in the future.

Linked to the rise in population is the shortage of food and water resources. The panellists commented on the current rise in the prices of food and commodities and the resultant food riots as an example of the gravity of the situation. Combined with climate change, environmental hazards, soil degradation and water shortage, the problem of food shortage seems even more ominous. It is therefore vital that agricultural produce be increased and research and development in this sphere be strongly encouraged by governments across the globe.

Inclusive development thus surfaces as a primordial solution to most global problems. An important point raised is the importance of making development everybody's business. It is clear that development has to be inclusive in nature and global participation is vital if this development is to be of any consequence. While it is unarguable that after the end of the cold war, the world has been dominated by a single power i.e. the United States of America, and most of the development took place around this one country, it is also clear that we are now in a transition phase from this world order. It is now the turn of emerging economies like India and China, amongst others, to come to the helm of affairs. It is suggested that these countries should not remain tied down by old institutions but involve themselves in the development of new institutions where they can create their own systems that work for their development. While it is recognised that these two countries with their vibrant economies are already changing the world order in terms of commerce and economy, they are yet to make their mark in the spheres of global politics and international affairs.

Another pivotal area of discussion was the importance of technology and the role that it might play in solving some of the problems discussed above. It is undeniable that technology plays an essential role in today's world and will continue to do so in the world of tomorrow, especially as a probable provider of solutions to the problems that

Steve Killelea, B. P. Bam, Sompal

"Violent conflicts result from relative economic deprivation and relative injustice."

Sir Mark Moody-Stuart, Chairman of the United National Global Compact

plague us. Technology however, comes with its own share of dilemmas. The biggest dilemma is arguably the "moral lag" that accompanies any radical technological advancement. The question thus raised is not if we are able to use certain technologies but whether we should use these technologies at all. The moral questions are thus the most difficult ones to answer. A current example is the debate going on in United States of America and Europe over the benefits and risks of manufacturing and consuming Genetically Modified Food.

The human element also plays a pivotal role in the behavioural side of facing these challenges. It would serve us well to take lessons in spatial management, biodiversity and sustainability from the very poor and use these lessons in the context of the rest of the world. The role of governments is another one of the key examples of the importance of the human element.

Government structures need to be changed and modified globally. Governments also need to implement and enforce some of the changes and developments proposed. It has to be understood that governments have to take different kinds of steps and measures depending on the location and the country. However, they can all borrow and learn from each other's strong points. For example, Europe can imbibe some of the resourcefulness that is characteristic of USA and India

to enable transformations and USA and India can in turn incorporate, from Europe, its social institutions, that are needed to manage these transformations.

Moreover, we need to understand that markets also pay an important role and cannot be ignored, for example, carbon tax and emissions trading. The development of the concept of emissions trading has meant that countries can make profits by selling their emission quotas and by providing ecosystem services. This commercialisation and globalisation of economics makes it a force larger than politics and religion, two traditional symbols of power. It causes politics to become more transparent and brings about reform in religion, thus benefiting everyone.

After having dealt with issues that are foremost and in the limelight, some attention also needs to be paid to issues that are currently in the periphery of our consciousness but are of equal importance. Chief amongst them is the debate on whether future actions will be ruled by internal issues or by external forces like multilateralism. The important point is that future collaborations have to be less bureaucratic. They cannot be modern replicas of the institutions created after the Second World War. Things like demand for accountability by the people of their governments and popular movements have to be tapped into. Interactions between such movements in different countries can go a long way in creating new bastions of cooperation. Apart from that, the business sector must be made to collaborate with the public sector. Research and development of technology must be encouraged but at the same time there has to be a balance between scientific development and commoditisation of human beings, especially in the fields of bio sciences. In short, people all over the world must come together and collaborate to solve global problems.

Opening Plenary

Sir Mark Moody-Stuart, Maria Cattaui, Steve Killelea, Melissa Powell

In the Opening Plenary, Mr. Steve Killelea, Conference Chair, and Sir Mark Moody-Stuart, Conference Co-chair, introduced innovative intellectual instruments linking business to peace and sustainability – Global Peace Index and the United Nations Global Compact

UN Global Compact

The Global Compact is a framework for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, the environment and anti-corruption. As the world's largest, global corporate citizenship initiative, the Global Compact is first and foremost concerned with exhibiting and building the social legitimacy of business and markets. The Global Compact is not a regulatory instrument – it does not "police", enforce or measure the behaviour or actions of companies. Rather, the Global Compact relies on public accountability, transparency and the enlightened self-interest of companies, labour and civil society to initiate and share substantive action in pursuing the principles upon which the Global Compact is based. The Global Compact involves all the relevant social actors: governments, who defined the principles on which the initiative is based; companies, whose actions it seeks to influence; labour, in whose hands

the concrete process of global production takes place; civil society organizations, representing the wider community of stakeholders; and The United Nations, the world's only truly global political forum, as an authoritative convener and facilitator.

Global Peace Index

The Global Peace Index founded by Steve Killelea forms part of the Institute for Economics and Peace, a new global think tank dedicated to the research and education in the relationship between economics, business and peace.

The Global Peace Index is a new tool for measuring peacefulness of countries and identifying the drivers of peace. This project has approached the task on two fronts - the first aim is to produce a scoring model and a global index that ranks 140 nations by their relative states of peace using 24 indicators. The indicators have been selected as being the best available datasets that reflect the incidence or absence of peace, and contain both quantitative data and qualitative scores from a range of trusted sources. The second aim is to use the underlying data and results from the Global Peace Index to undertake investigations into the relative importance of a range of potential determinants or "drivers" that may influence the creation and nurturance of peaceful societies, both internally and externally. Developed in conjunction with the Economist Intelligence Unit, the Global Peace Index has sparked a debate in the media from all parts of the world.

Water and Food Security

Deepak Jolly, Sompal, Melanie Greenberg, Michael Garrett, Tariq Karim, Monty Jones

This session discussed the very vital issues of food and water security, issues that affect the world in a myriad of ways, not only in the traditional ways of hunger and deprivation but also in unconventional, little discussed ways such as causes of conflicts in many regions across the globe. The primary issue brought up was the global food crisis and the rise in prices of commodities such as wheat, rice, soybean and even milk, all over the world. One of the primary causes of this problem is demographics. The global population is increasing rapidly and steadily, chiefly because of the burgeoning populations of emerging countries like China and India, which currently accommodate 22% and 18% of the world's population respectively. In such a scenario, naturally there are more mouths to feed, thus putting pressure on the world's food produce. The shortage of food could also be attributed to the fact that the quantity of arable land available for agriculture is decreasing. The main reason for this is the rapid growth of population worldwide and rapid development in India and China. The decrease in the quantity of arable land is further complicated by the problem of deterioration of the quality of this land. Soil degradation has emerged as a new menace, adding to the already grave problems that exist in this domain. It began with the depletion of nitrogen in the soil and then worsened with the debilitation of other nutrients to the extent that today a total of nine out of the essential sixteen nutrients have disappeared from the soil on a permanent basis.

It is also necessary to see how government policies both in the east and west are affecting agriculture and the state of food security in the world. To add to these issues is the problem of competition from bio fuels. Surprising as it may seem, bio fuels are playing a big part in the food shortage problem by literally guzzling grain. This leads to the problem of bio fuels and their feasibility, especially from the point of view of the cost of their production, the quantity and nature of the ingredients used, especially the colossal amount of water needed

for the process. Thus emerges the massive global problem of fresh water shortage. It is undeniable that the water environment of the earth is deteriorating fast. It is predicted that by the year 2050, the per capita availability of water is likely to be less than a thousand cubic metres, which is the minimum amount required for sustenance of life. Agriculture is the largest consumer of water, with around 80% to 85% of water being used for agricultural activities. Production of meat, leather, textile and cotton industries all use up copious amounts of fresh water. Food and water shortage are grave and urgent problems because they can be cause for major conflicts, as seen in Darfur, Kenya and Zimbabwe and Sri Lanka.

Recommendations:

- To resolve conflicts, it is essential that apart from the regional and national institutions, there be a strong presence of an intermediate institution with strong communication on the ground. Thus, there is a need to connect local systems with larger institutions as was attempted successfully in Yemen. (see box)

- We also need a system where information is exchanged easily and in all directions which can go a long way in dealing with water related conflicts. In addition to this, it is important to have an early warning system that can predict where the conflicts are going to come from, so that preventive efforts can be made. Efforts need to be made to not only increase inter governmental cooperation but to also increase cooperation with and within traditional systems like tribes.

- Potential and ongoing crises relating to water sharing need to be dealt with continuous dialogue and compromise and dealt with before they escalate into violent conflicts.

- Governments play a very important role in the matter. Budgetary allotments in the sector need to be increased. While governments in many countries

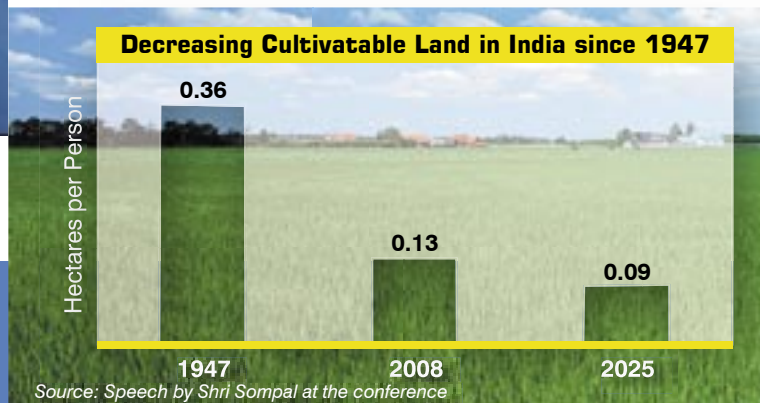such as in Africa are realising the importance of better food and water policies, more needs to be done.

- Governments in the West need to think globally and put an end to agricultural subsidies in their countries, which are wreaking havoc on farmers in developing nations.

- Apart from governments, private players also need to increase their investment in the sector so that new research and development in the sector can take place.

- Private public partnerships can play an important role by encouraging better supply chain practices from vendors and suppliers.

- Rampant wastage needs to be stopped and better conservation practices like rejuvenating wells, rainwater harvesting, check dams and drip irrigation need to be encouraged.

YEMEN

An impending conflict because of water has been averted in the tiny country of Yemen. This has been done by dividing the land into 14 water zones, each of which has a Water Manager. These Water Managers stay in constant contact with each other and also maintain contact downwards with the common people as well as upwards with the government. This has ensured that everyone stays informed about the state of water in the country and steps can be taken to resolve issues any issue that may arise. This system has played a tremendous role in staving off a water conflict in the country.

Decreasing Cultivatable Land in India since 1947

Hectares per Person

0.36 — 1947
0.13 — 2008
0.09 — 2025

Source: Speech by Shri Sompal at the conference

"The issue of water sharing across frontiers is very important, since water is an essential component of national security and sovereignty. However, water resources like rivers do not follow political frontiers and thus ways and means to share these resources have to be found. In such a scenario, it is only natural that disagreements would occur. In this context, sharing of the waters of the Brahmaputra and the resultant disagreements between India, China and Bangladesh assume strategic importance. India and Bangladesh have strongly objected to China's plans to divert the waters of the river Brahmaputra towards the Yellow river by building a dam on the Great Bend of the river over the Tibetan plateau. While, this would address China's energy problems, it would result in a 60% decrease in the flow of the river towards India and Bangladesh. Considering the fact that water from the Brahmaputra is a large source of irrigation in these two countries, China's plans in this regard is a source of great anxiety for this part of the subcontinent.

The question is what India and Bangladesh have to do to ensure that no one's interests get harmed in this process. Firstly, it is important that talks continue at any cost. Breakdown of talks can never have any positive consequences. So, if any sort of headway is to be made in the matter, the countries involved have to talk. Negotiation is the only way to solve this issue. India has to indulge in serious anticipatory thinking and deal with the problem with foresight. It has to be explained to China that because of global warming and climate change, glaciers in the Himalayas are shrinking and at this rate, in forty to fifty years, rivers originating from these glaciers would become seasonal. Thus, China's plan to dam the Brahmaputra would be in jeopardy. India has to persuade China that in these times of environmental deterioration, countries have to work together and cooperate with each other instead of alienating each other. No country can afford to isolate itself in these matters anymore since the menace of environmental degradation is one that affects everyone. The key is compromise and foresight."

Ambassador Tariq Karim

Energy Security, Climate Change and Clean Technologies

Haribhakti, Tonnesson, Nobel, Rivkin, Parker, Richter, Thakur, Miyake, Napolitano, Runacres

Climate change and global warming are two of the major threats facing the planet currently and in the future. They cannot be denied and even if the world decides to act now, it is certain that the planet is already in for change and disruptions for a few centuries. Changes in human society and thus in international politics are imminent and it will be the developing countries that will be hit the hardest, even though it is the developed countries with their unchecked carbon footprint and negative growth that are responsible for a lot of the environmental hazards we face today. Phenomena like extreme climate, droughts, famines and rising sea levels will create maximum destruction in poor countries. These changes might engender events like shortage of water and of other resources, events that can result in conflicts in these parts of the world.

Energy and energy security are fast becoming global preoccupations but to understand energy security, it is important to first understand energy. Energy is produced in a variety of ways. Today most of these ways in most countries include usage of non renewable, polluting sources like coal and oil. The problem with coal is that big consumer countries have their own stockpiles and so do not have to answer to anyone else. This means that that their consumption goes unchecked and it is predicted that in the years to come they will use more and more coal especially in the current scenario of rising oil prices. On the other hand, oil resources of the planet are not found in the major consumer nations of the world. Most of the oil resources of the world are situated in the Gulf region, whereas the biggest consumers of oil are traditionally the west and recently emerging countries like China. Almost everybody has to depend on imports and as the current global situation demonstrates, this creates a lot of insecurity concerning energy security. This insecurity is magnified by the unstable conditions in the Gulf where political imbroglios lead to situations where the market forces do not work and this adversely affects the global oil prices causing increasing divisions in the world. There are bound to be other effects as well. For one, strong consumer countries might increase pressure on production countries to deliver more oil, even going to the extent of exerting military pressure, a situation that is already arising in some countries and that is definitely undesirable. No good can come of a scenario where military might is used to obtain oil. Conversely, it is also possible that oil production states that are known for their military prowess might use the situation to their strategic and political advantage. They might try and influence the policies of smaller, weaker states that are dependent on them for oil supply.

Nuclear energy is another source that is national in nature but may be desirable if we consider it from the point of view of climate change. However, nuclear energy does not come without its own set of problems and challenges. The three main challenges that it faces are the danger of nuclear proliferation, improper waste treatment and the risk of serious accidents.

The problem of energy security today stems from the problem of declining natural non renewable resources. The scramble for natural resources isn't exactly new but what is significant is this scramble has intensified the past few years because of new players like China and India that require more and more resources thanks to their rapid industrialisation. Three fourths of the energy increase comes from these countries. To fuel this increase in energy consumption, Chinese companies have been making their presence felt in the continent of Africa, by opening shop in countries like Angola, Mozambique and North Africa in return for natural resources. This is an example of how the new and emerging powers from the East, mainly India and China, are competing with the old established powers of the West like North America and Europe, for natural resources in Africa. To add to this, the energy requirements for a developed nation increases by 2% every year and even though most of them are investing, in varying degrees, in renewable energy, most of their immediate energy needs are satisfied by conventional sources like oil and coal.

Frank Richter, Gitanjali Bakshi, Barbara Weekes

Shailesh Haribhakti, Stein Tonnesson, Michael Nobel

Added to the problem of increasing demand and decreasing supply is the problem of wastage. While, it is acknowledged that there is no easy and comfortable way to reduce energy consumption unless the world goes back to a lifestyle of the 1960s, wastage of energy cannot be condoned. From the time it is generated till it is consumed, 52% of the energy is wasted. When the fact that the world will reach peak oil position as early as 2020, after which there will be no more increase in oil production, is added to these colossal figures of energy wastage, the scope of the problem at hand is realised.

To add to this is the problem that the nations that are the most influential in the realm of international affairs are not necessarily the ones that are the mightiest in the economic and military sector. For instance, Japan and India do not have a permanent seat in the United Nations Security Council and China and India are not members of the G8. There is also the issue of the divide between the North and the South. The developed North has neglected the issues, problems and demands of the developing South by not listening to it. The voices of the South are not given a chance to speak, let alone be heard at a global level. This neglect on the part of the North is compounded by the bitterness that the South already feels towards the North, bitterness that finds its roots in colonialism and the injustice faced by the nations of the South during the period when they were ruled by imperial powers of the North. If we add the problem of vastly differing daily realities of the two regions to the factors that already divide them, we reach a situation where these issues adversely affect every kind of interaction that these two regions have and impede critical issues on the agenda of international affairs, like war, terrorism, nuclear weapons, protection of human rights, free trade, amongst others.

Recommendations

- There is a strong need to stop wastage of energy and to emphasise on its conservation. Low energy lighting, more fuel efficient and battery operated cars need to be encouraged.

- The concept of captive power plants needs to be discouraged strongly. Instead, low cost, dependable grid power with strong regulatory frameworks, that bring about regional security, needs to be encouraged.

- Reduce dependence on hydrocarbons and concentrate on clean and renewable sources like waves, fuel cells based on hydrogen and sea water, wind power, biomass, fusion technology instead.

- Special attention needs to be paid to the development of solar power which has the capacity to be the perfect source of energy.

- The current investment in research and development in the sector is not sufficient at all and needs to go up considerably. A large section of this investment will have to be made by the private sector.

- One way of increasing investment in the sector is to have an explicit cost of carbon. There needs to be a universal cost of carbon that replaces the cost of carbon implied by the price of oil, something that exists today. The cost could be calculated in terms of the cost of reducing the emissions to a level that is alright for the planet. There are two ways of doing this. The first way is through a universal Cap and Trade system. The second way is to create a fiscally neutral carbon tax. Despite the fact that Carbon Tax is a more daunting prospect, it is preferable to a system of cap and trade. This is because cap and trade systems normally involves only the developed countries, whereas a carbon tax would keep in mind that this is a global problem and include all the countries thus proving to be more effective.

- Adaptation is an extremely important area of concern even if it is not directly linked to the question of energy security. This is because it is essential that we prepare ourselves for the future. Adaptation thus includes crisis anticipation and scenario planning, as well as the capacity to be able to respond to these situations. There needs to be some serious scenario planning about what the potential for conflict from climate change could be from the worst case scenario to a scenario that is almost benign.

"Water treaties have formed the basis of co-operation between countries. A treaty for co-operation in coal and steel sector transformed Europe from five hundred years of warfare to a continent of peace within fifty years. Similarly, worldwide agreements to foster co-operation in new environmental technologies can provide the foundation of a peaceful world order."

Mr. S. C. Jamir, Governor of Maharashtra

- Initiatives by organisations from the private sector involved in the process of technological innovations in alternate energy need to be encouraged. The Nobel Charitable Trust has initiated the Nobel Energy Award that is trying to provide incentives for research in the alternate energy sector. Another example is Cleantech, which is an organisation started around six years ago that aimed to create a global investment category in ecosystems. Back then, it was ignored by the corporate world since the environment was not really at the helm of things and only 1% of all venture capital flows were towards Cleantech. Today however, the story has changed. The world has begun to take notice of the environmental issues that plague us. This is seen by the fact that today 20% of all venture capital is going into clean technologies, which is second only to the venture capital that is going into the software industry.

- The role of the governments and governing bodies however is still very important. The government is important because only it can provide the regulatory frameworks required for new technologies to work and for new measures to be implemented. It needs to give guidelines and provide incentives like tax incentives to industries with environment friendly practices. There needs to be a broader participation on the part of the government which involves more interaction with the general public.

- In addition to this, countries have to let go of their adherence to the concept of national sovereignty. They need to look either upwards i.e. globally or downwards i.e. locally. Thus, apart from local and national governments, international governing bodies and supranational organisations also have vital roles to play.

- However, the concept of global governance faces some tough challenges. The gap between legitimacy and efficiency has to be bridged. It is necessary to create one group that brings all these countries, the old powers and the new powers, the North and the South, together in one forum. This forum would focus on strategic clarity, triangulated with transparency and accountability, on top of which there would be a supranational representative structure of people who can make a difference and set up communication lines with people who are being affected. The expansion of the G8 into the G14 or G15 is one such solution.

- However, creating too many organisations of global governance can also be an issue. This is because the overheads of the existing organisations are already harmful to the world and creating more institutions would only compound the problem. The key is resolving the issues that are slowing down the workings of the existing organisations first, for instance the deadlocks in the WTO talks.

- The need of the hour is to have common regulatory frameworks, international agreements of cooperation and constant negotiations at the very highest levels of leadership.

- The voices of the private sector, of businesses need to be given a forum and need to be heard. Governments and international institutions need to learn the "Open Innovation Model" from the market place.

The Investment Required

An incremental investment of 45 trillion dollars is needed over a period of around forty years to bring down the level of carbon dioxide entering the atmosphere from the current 28 gigatonnes to 14 gigatonnes or else this figure could rise to 62 gigatonnes in this same period.

Keynote Address

"I strongly feel that the sustainable development should not ignore the principles of development for all. The approach of limiting carbon emissions by imposing taxes on industries in the developing countries may not be fair to the poor countries that house eighty percent of the world's population who needs fossil fuel for development in the short and medium term. The Polluter Pays Principal, which is PPP should be globally implemented through effective missions, trading transfers from the North to South. This may help the developing nations to leap frog the environmentally not so friendly processes or at least hasten their transition to the next generation of technologies. This should be in addition to meeting the Overseas Development Aid (ODA) commitment by the industrialized countries. Furthermore the developed countries should be responsible for the current value of past emissions. Thus a combination of technical, economical and social response is required to harmonize the demand of environment, economics and energy. All the national, regional and global associations, agencies and forums in various fields of development activities have to put environment at the centre of their agenda. The ethics of development lies in giving priority to the environment.

Such concerns need to be based on the enlightened self interest of the developing countries. Finally we must collectively reemphasize the value of thrift, recycling, conservation, simplicity of lifestyle etcetera, practiced by the millennial civilization of India. The love and care with which our civilization treated nature is contained in the Vedas.

We'll have to come up with creative solutions to sustain the process of economic development across the globe by protecting and nurturing the ecology of our planet. These goals are achievable in the world where there is peace and cooperation and societies conduct business with one another in a mutual profitable and peaceful way. For this new technological, economical, social, political reality, new business models will have to be developed. If we say that the world today is as it was never before then for this new world, new ideas, new solutions will have to be wrought.

Unless we experiment, new challenges cannot be accepted and if you can do new things and accept the future, people might criticize for the time being but they accept the future development."

- Mr. Sushil Kumar Shinde,
Minister for Energy, Government of India

Sunil Karve addressing the concluding session

Sundeep Waslekar, Kumar Ketkar, Sushil Kumar Shinde

Introductory Address

"We need to deal with the local and the global, with not only energy security but food security, with social implications, with education, with crisis prevention and management, with eithics and with the all important issue of peace."

Ann Ollestad, Ambassador of Norway to India

"Ensuring energy security and addressing the global challenge of climate change are issues of priority for my government, and for our cooperation with India.

I applaud the Indian government for putting climate change high on the Indian national agenda. I am personally very impressed by the commitment that we see from both the public and private sectors of this country, and reflected in the media, and the innovative solutions we see produced here. We certainly look forward to studying the National Action Plan for climate change, which is to be launched by the Indian Government.

A recent international poll showed that Indians are among the most environmentally conscious peoples of this planet. This gives cause for optimism for India, as a growing global economic and political power, to be able to develop a low carbon economy that will benefit not only India, but the world itself.

Building partnerships, between our countries, and across sectors, is a guiding principle of the work my Embassy is doing. The Embassy is proud to be a facilitator of project cooperation between some of our countries most prominent institutions and research centres of excellence on issues of mutual interest and benefit.

We run a programme of bringing these institutions together, in particular with regard to joint research projects related to energy, climate change and the environment, and we strive to build public-private partnerships in order to achieve our common goals.

We have a very good and dynamic bilateral cooperation with India on climate change and environment issues, which was confirmed last week during the India-Norway Joint Commission which took place in Oslo.

Norway is aiming very high when it comes to reducing CO2 emissions at home. By developing partnerships with India, between industry, research and government, we hope to both be part of developing a successful low carbon economic growth in India, and at the same time help us meet our national climate target of becoming carbon neutral by 2030. Developing clean technologies are key factors in ensuring continued, yet sustainable, economic growth. Norway was fortunate to be able to fuel its growth with hydropower. Norway has a lot to offer when it comes to renewable energy, such as off shore wind technology and solar energy. India is an important provider of renewable energy, such as wind power, and is doing important work when it comes to energy efficiency and green buildings. We witness excellent developments when it comes to cooperation between Norway and India in this regard, and there is a great potential for joining forces even further. Since I took up my posting as Ambassador to India, I have witnessed how actively the business sector - from both India and Norway - is engaging in meeting the challenges of climate change. Profit will always be a motive and a driver for the private sector, but I believe there also exists a general will, across sectors, to contribute: to do one's share. That is why I am hopeful that the dialogues that this conference will embark upon will in fact not end here, but stimulate the action that we so urgently need to happen. Western countries are sometimes accused of having too much faith in a "technological fix" to a sustainable future. Developing new technologies for a sustainable future and continued growth is certainly crucial for success. But let me assure you that my Government is fully aware of the complexity of the issues at hand. We need to deal with the local and the global, with not only energy security but food security, with social implications, with education, with crisis prevention and management, with ethics, and with the all important issue of peace."

- Ms. Ann Ollestad, Ambassador of Norway to India

ICT for Peace

Nielson, Stauffacher, Weekes, Nambiar, Sammanwar, Hattotuwa, Modoux, Wells

The example of the recent crises in China, Myanmar and Sri Lanka show how important information and communication are in the process of crisis management. While China dealt with its crisis situation admirably, in the other two countries, there was a serious lack of information and communication, which led to a situation where the people and organisations at the helm of relief operations were unaware of the ground realities. The result was a complete lack of coordination between the various relief organisations. Resources were directed to places that had already received them earlier and thus other areas that actually needed those resources had to do without them. The severe communication failure meant that even the government, despite its valiant rescue efforts, could not ascertain whether its response had reached the right areas and whether it was sufficient. The story of the non governmental organisations reads the same way. There was no coordination between the different organisations and neither was there any collaboration with the government agencies. The media could not give out any information because it had no information to begin with and there was no one it could go to, to ask for it. The consequence of this entire confusion was that there was no communication and considerable replication of relief efforts leading to large amounts of money being wasted.

Peace keeping and crisis management operations are normally conducted in an environment where there are many organisations and players working simultaneously. There are various funds, programmes, regional organisations, international aid organisations and non governmental organisations involved in developmental and humanitarian efforts that function within the same space. United Nations peace operation forces are deployed in areas where many of the organisations mentioned above have already been at work before the arrival of the forces and will continue to remain in these areas even after the peace keeping operation has been wrapped up.

However, it is not easy to implement ICT (Information and Communication Technologies) and the process faces a lot of hurdles and obstacles, like lack of

understanding at the political level about ICT, lack of historic data to understand what works and what doesn't and to learn from past successes and failures, turf battles between the different agencies involved, the differing agendas of these agencies, problems in creation of technologies to capture and share knowledge and in the absence of these technologies the inability of these agencies to share the information with each other. This inability to share information is only heightened when the situation requires interaction between the armed forces and the civilian organisations. There are various reasons for this inability. One of them is simply the unwillingness of the different organisations to share their information and experiences with each other. This is often due to a lack of trust between the organisations and the fact that all the organisations are completely unaware of each others' work ethics and work cultures, especially in the case of military and civilian organisations.

Recommendations

■ Information needs to be treated as a human right.

■ It has to be recognised that ICT is not just "a technical adjunct" that helps in delivering food, water and shelter. It is a core component of any mission and must be recognised as such.

■ There needs to be increased coordination between government agencies, private sector and NGOs for disaster relief and responding to humanitarian crisis.

■ Creation of open and accessible sources for sharing information, enabled by ICT technologies has to be encouraged.

■ Technologies, like simulation, can play a powerful role as a learning tool for mission personnel. This technology can be used to recreate any part of a mission and thus allows complete understanding of the situation. This technology also allows the possibility of explaining to local groups the unintended consequences of the peace operation and of the choices that have to be made.

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> "Unless you communicate, collaborate, translate and engage with organisations, you can not achieve the social and political goals for which the military was committed in the first place."   Dr. Linton Wells

- Information and communication technologies can be useful in a disaster scenario in many other ways. They can be utilised in any phase of disaster management processes. Hailers through satellite can be used as warning systems, especially for remote areas.

- Registrations of missing persons in the immediate aftermath of a disaster, tracking online requests and relief efforts as well as tracking groups of displaced people can be made simpler and more organised through software created especially for the purpose. An online database for example would greatly help decision makers get the correct information at the correct time and thus ensure immediate action.

- ICT can also be used in the form of media. Multiple media forms like radio, television, internet, telephone and SMS can be mobilised to disseminate information as and when needed thus ensuring that there is a continuous flow of information.

- ICT can also be used in order to catalogue and archive information for agencies like the United Nations Organisation so that they can access them at the right time, in the right way and in the language of their choice so that they can not only understand the issue better but also be able to respond to it better.

- These new technologies should also be used for educating children in refugee camps and those in remote areas.

- More concrete measures include using ICT as civilian military bridge builders or CMBB. These would include setting up of networks of data and information that can be accessible to all the actors involved in peace keeping and humanitarian operations. These multi stakeholder facilitators would create an environment where collaboration between the military and civilian organisations would be made easy.

- Apart from that, the United Nations Intranet could have a larger section on peace and security issues with increased data and information.

- ICT has to be developed further in order to make it ideal. An ideal ICT is user friendly, simple, durable, flexible, mobile, hardy and cost effective. The last factor is something that needs to be worked on especially so that these technologies can be implemented on a larger scale. At this point, it cannot be denied that ICT can prove to be expensive. However, this expense can be reduced through financial investment, by including it in their CSR programmes of corporate entities.

> "The currency of power in the 20th century was 'deterrence'. The currency of power in the 21st century will be knowledge and information."
>
> General Deepak Sammanwar

Innovative Education for Peace

John Maresca, Dhanashree Talwalkar, Lou Marinoff, Y. S. Rajan, Sunil Karve, Devisingh Shekhawat

To understand the concept of innovative education for peace, the first basic principle that needs to be followed is that we must accept the dialectics of nature. This means that we must admit that competition, conflicts and aggression do exist and cannot be wished away or done away with, even through law and order. One also has to accept that nature evolves and that it is important to adapt to this change because only then can survival be assured. The point being that nature is a certain way and that its dialectics have to be accepted for there to be peace. However, the process of reaching this state of mind and of understanding these truths is a never ending education.

It is important that the definition of good education does not become too narrow and hidebound, limited to select institutions that provide a particular kind of skill set. Education is a process deeper than just gaining knowledge and information. It also means acquiring a set of values that allow an individual to lead a balanced life in which he or she is able to handle the successes and failures of life with equanimity and in which he or she is able to work with other individuals for the greater good of humanity.

It is interesting to observe that most of the world's problems stem from poverty, which itself is a societal woe that arises from illiteracy and lack of education.

Recommendations

- Education needs to be treated as a fundamental right of all and needs to be imparted at an early age to all children with an emphasis on inculcating correct values. Teachers and parents need to play an equal role in this process.

- There needs to be a greater emphasis on values, inter-cultural understanding, and conflict resolution along with economic progress in educational courses.

- If we talk about the objectives of education, there needs to be greater encouragement to shift from only economic goals to the understanding of human goals.

- Encouragement to shift from the philosophy of the 'survival of the fittest' to the philosophy of 'adaptation to the change'.

- A combination of traditional and modern education methods and the marrying of technological progress with values derived from the United Nations Charter, as well as the teachings of apostles of peace such as Mahatma Gandhi would be an excellent way to achieve the purpose of innovative education for peace.

- There needs to be large-scale training of trainers to train college students.

"We must teach our children that there is no word for enemy. We are all children of the global village."

Prof. Lou Marinoff

"Today's world is marked by tremendous scientific and technological progress. The consequence of all this has been that almost every part of the world is interconnected and hence interdependent. This has made the world a much more complex place which means that it now needs skills to match these complexities. These skills need to be upgraded and ameliorated constantly in order to ensure productivity. Educational institutions thus need to adapt their programmes to match these changing global realities. They need to make sure that their students are armed with the latest skills required in today's world. One of the ways of going about this is by building effective partnerships between the developed and the developing world. Both have assets that the other does not possess and thus both can benefit from each other.

However in all this technological progress, it is important that the youth does not lose other things. It should not become robotic and lose characteristics like warmth, caring, compassion and empathy, characteristics that make the human race what it is. Thus there is a need for balanced development of the youth.

India is committed to providing such quality education to its youngsters. For this purpose it is improving and upgrading its infrastructure network. Businesses and the private sector can play their part in this process by making educational infrastructure development part of their corporate social responsibility projects."

Dr. Devisingh Shekhawat

Collaborative Harnessing of Knowledge

"For the last few years, common people in rich and poor countries alike are suffering from increasing fuel prices. Since the last few months, inflation in food and commodity prices has made life difficult for all people, particularly for the poor in the developing world. In these crises, we can see a close linkage between business, peace and sustainability. If there is peace and geopolitical stability in all major oil producing countries, the price of oil would be much lower. If there is careful planning in the diversification of land use from food to bio-fuels, the price of food would not be so high. Peace is essential for economic growth and sustainability; sustainable societies produce peace. A big question of our time is how to produce a virtuous cycle between peace, sustainability and economic growth.

Before I share my thoughts on how to proceed further, let us reflect on how the world has progressed. Ancient Indian scientists and sages contributed to the creation of knowledge – zero, decimal numbers, algebra, calculus, principles of governance, health, astronomy and other fields. The knowledge developed in India was then transferred to other parts of the world. On the other hand, the Indian society assimilated knowledge developed elsewhere and adapted it to our environment. We have always believed in the collaborative harnessing of knowledge to advance human progress and core human values.

Yet when modern technology was developed in recent centuries, its development was concentrated in one society at a time. Time has now come for a cooperative and simultaneous development of knowledge across societies in a collaborative way. We already have example of such cross-societal cooperation in the field of agricultural research and SARS (Severe Acute Respiratory Syndrome). We can develop new models of cooperation between research institutes and universities of the world to address emerging global problems such as inequity, climate change and environmental degradation.

As a recent research report of the Strategic Foresight Group points out, almost 90% of investment in clean technologies is concentrated in North America and Western Europe. In the next decade, as these technologies spread, we will go through a new industrial and technological revolution. Unlike the last three industrial revolutions, which were dominated by only one society, we have an opportunity to make the next industrial revolution a genuinely collaborative endeavour. In this task, universities and research institutes can play an important role.

About 20 years ago, our late Prime Minister Rajiv Gandhi had proposed a Global Environmental Fund. Three years ago, our present Prime Minister proposed at the Gleneagles Summit a Global Technology Venture Capital Fund for financing joint projects between developing and developed countries in environmental technologies. We need to examine these ideas and find feasible ways to implement them. Obviously we need a group of visionary countries to be champions of such a global knowledge partnership.

Our success in jointly protecting our environment and facilitating growth will foster peace. As you all know, water treaties have formed the basis of cooperation between countries, which are otherwise engaged in hostile cooperation. A treaty for cooperation in coal and steel sector transformed Europe from five hundred years of warfare to a continent of peace within fifty years. Similarly, worldwide arrangements to foster cooperation in new environmental technologies can provide the foundation of a peaceful world order.

It is possible to shift from the politics of problems to the diplomacy of cooperation. Knowledge cooperation and an alliance of universities and think-tanks can be at the core of such a collaborative global order."

- Mr. S C Jamir,
Governor of Maharashtra

Role of Media in Crisis Prevention, Peace and Intercultural Understanding

Indrajit Gupta, Rami Mroz, Ahmed Soliman, Ahmet Oren, Mona Eltahawy, Paul Gillespie

The core function of media is to provide raw material for democratic choice. It provides facts, arguments and interpretations for a healthy democracy to function. Thus, it is based in the practice of public interest and talks to readers as citizens. Its role is to primarily work for the citizens of a country rather than self interest. Thus, even though media is a commercial activity, now more than ever, its basic function is to provide a public service. However, this does not mean that the media is playing this role to perfection. There are a lot of issues with media coverage of issues that need to be sorted out.

- The international media depends on very few international sources like Reuters, AFP etc. This is definitely not enough and this scarcity can have dire consequences.

- Another problem is that there is a lack of diversity in newsrooms around the world. Journalists are completely ignorant of any reality other than their own, leading to suspicion and wariness.

- There is also the issue of illiteracy. In so many countries across the globe, almost the half the populations cannot read and write. In such a scenario, it is very easy to lead them astray and religious extremism finds a very comfortable breeding ground. This is because they can fool the illiterate population into believing certain things about their religion and since these people cannot open a religious text themselves and clarify, they are easily convinced.

- Media has been identified as a major player for threat mitigation that could check the growing violence and terrorism across the world.

- For the most part, most sections of the media do try and fulfil their responsibility and the advantage of so many media sources is that even if one kind of media ignores a problem, there are others that take up the mantle. Modern media like the internet and television for example have become a mouthpiece for sections of society that otherwise find themselves without a voice; the youth and women being excellent examples.

- The role of the business media cannot and should not be forgotten. Economics and business are central to a lot of issues and problems that we face today. It is important to meet the rising aspirations of people who want better jobs, better standards of life, especially in the developing countries, something that is difficult to do in today's circumstances, especially in countries like India that are experiencing jobless growth. This failure to meet these aspirations and the resulting economic deprivation lie at the root of a lot of violence. Moreover, the role of business in a social context has been widened as more and more companies realise that they have a larger societal role to play. Thus, there is more and more interplay between the civil society, the governments and businesses.

Recommendations

- Media needs to find a balance between being a business and being a social service. It needs to walk the tightrope between telling people what they want to know and informing them about what they need to know.

- There is a serious need to counter the lack of diversity and the resultant lack of trust by encouraging a variety of people from different backgrounds and with different perspectives to work together, thus bringing about trust and accuracy.

- The problem of the media becoming a breeding ground for religious extremism because of illiteracy can be combated only through the media. Services like Public Addresses should be used to make sure that people, especially the illiterate and gullible do not get swayed by extremists. These public service addresses are already being used in Egypt in order to discourage terrorism and have been used in the past in United States of America to combat the problem of drugs.

- There need to be more initiatives like the Media Leadership Group by the East West Institute, the South Asia Free Media Association (SAFMA), and the group of journalists that are part of the Euromed Group. While it is certain that it is next to impossible to bring everyone into agreement about regional issues since journalists would almost always differ in terms of their ideologies and beliefs, just the fact that they could come together and talk and express themselves without fearing misunderstandings is a big step forward. These groups provide an open space for discussion at the national, regional and global level.

- The common man and the youth in particular also need to get more involved in the process. More people need to be encouraged to get into the field of journalism.

- Everybody needs to express their views and opinions on a public forum, by writing to newspapers for example, and not just in local newspapers but also in foreign newspapers so they would get newer and

different perspectives on issues; this would go a long way in making a difference.

- Modern media needs to help neglected sections of society by giving them a voice to fight against neglect and apathy.

- Business media must build dialogues between different players like the civil society, governments and businesses and bring in an independent voice.

How blogging gave a voice to Egyptian women

During a religious festival in Egypt, some girls were misbehaved with and sexually assaulted by a few men. This event was ignored by the mainstream media. However, the incident was written about in the blogs of some of the girls who had been assaulted. These blogs received a phenomenal response in Egypt, from other women who had been through similar experiences and from men who were completely ignorant of the fact that women in Egypt were daily victims of some form of sexual assault or the other. These blogs raised a big debate in cyber space, while the mainstream media blanked it out. However, because of the overwhelming response that the blogs received, agencies like Reuters finally picked up the story and satellite channels in Egypt followed. Finally, Egypt and the world had to sit up and take notice of this reality that Egyptian women were experiencing everyday of their lives.

Responsible and Ethical Financial Investments

Guillaume Taylor, C. B. Bhave, Thomas Streiff, Edoardo Gai, Pierre Trevet, Bharat Tripathi

■ Responsible and ethical investments are multi dimensional and extremely important.

■ Now more than ever, companies are realising that financial gains are not the only way to measure their profit. Circumstances are forcing them to understand that the adage, "the business of business is only business" does not ring true anymore. This realisation is permitting them to engage in activities for reasons other than maximisation of financial profit.

■ In addition to that, companies are also realising that sustainable development and corporate social strategies are not necessarily non profit ventures. There is profit to be made in these activities.

■ Successful sustainable business has two broad sides. The first is competitiveness and the second is credibility. Competitiveness is driven by certain values such as the quality of service, motivation of employees, innovation, productivity, market differentiation, market share, prevention of lawsuit risk and risk management amongst others. If you talk about credibility, factors like loyalties of clients, goodwill of clients, loyalties of the employees, goodwill of the shareholders, brand value, position of public affairs are extremely crucial. These two factors are extremely important for companies while planning their corporate social strategies.

■ In addition to this, risk management is fast becoming an important factor in these strategies. A decade ago, risk management was not on the radar. The important things were the reputation and value of the brand. This is changing now with risk management becoming an integral part of non financial reporting by companies.

■ This leads us to the growing importance of non financial reporting in today's business scenario. Earlier, the only aspect of a company's performance deemed important enough to report was its financial and commercial performance. This is proven by the fact that in 1992, only 26 environmental reports were released by companies. In 2007 however, this figure jumped to a whopping 2500 reports. Apart from this phenomenal increase in the volume of reports published, there has also been a change in the content of these reports. While earlier, these reports were almost exclusively to do with the environment, today the companies report more comprehensively, on economic, environmental, social and governance questions.

■ Financial reporting leads to better and more accurate predictions. This leads to increased confidence, less volatility and it also allows for anticipation. This is because non financial reporting gives a more accurate and complete picture of the company's state of affairs. Thus its future is clearer and this gives the shareholders and the stakeholder assurance of the company's vibrant future.

■ The four pillars of Economic Social Governance (ESG) can be summed up as strategic governance, human capital, stakeholder capital and the environment.

■ Investor habits also need to be addressed. At present, investors normally put their money in stocks where they are assured of a return. Their only lookout is to make a profit and beyond that, they are not really concerned by where their money is going, where it is being invested and what are the environmental and social consequences of their investment.

Recommendations

■ Social legislations by governments should be made at the right time or else they would lose their effectiveness.

■ Ethical investment needs to be encouraged. For this, both companies and investors need to be made aware of their responsibilities.

■ They also need to understand that sustainable business can be profitable. This can be done by advertising and marketing to the consumers that the goods they are buying are green and were

Guillaume Taylor, C. B. Bhave, Thomas Streiff

"Peace without dignity, peace without freedom, peace
    without the strength to negotiate is no peace at all."
    Chandrashekhar Bhave, Chairman, Securities and Exchange Board of India (SEBI)

made in an environment friendly way without using any child labour. This way the goods would be sold at a premium to consumers who would not mind buying them at a higher price because they would feel that they have done their bit for society and the environment. Marketing the goods' environment friendliness would bring about consciousness amongst the consumers and thus give the companies more incentives to carry out CSR projects.

■ In addition to this, it is important that companies share and distribute information. They can do it in a way that does not jeopardise their confidentiality and at the same time helps the evaluation of sustainability.

■ Even governments and non governmental organisations need to share information and measurements. In addition to sharing of information, it is essential that there is analysis of information. Philanthropists, businesses and non governmental organisations need to work together to collect funds to carry out this research.

■ There is also a need for emphasis on media and on marketing, something that has been neglected up until now. There is a need for sources, forums and groups to get the message out. This is because ideas need to be communicated for them to be effective and to be accepted. Moreover, if people out there learn about such initiatives, they would be motivated to invest in such initiatives and in companies that take such initiatives, leading to profitability of these companies. This would lead to more and more companies investing in such initiatives in order to attract investors and to build their brand image.

■ Initiatives like Innovest Strategic Value Inc, United Nations Global Compact, Pury Pichtet Turrettini, Sam Group and the Dow Jones Sustainability Index are doing a stellar job. However, to ensure that there is a greater difference made, more such initiatives are needed.

The Dow Jones Sustainability Index

The Dow Jones Sustainability Index is amongst the first indexes to evaluate and measure sustainability. The index aimed to be completely objective and unbiased. Moreover, despite the fact that what the index sought to measure was intangible, Dow Jones considered it essential that there was a fixed methodology used for the process so that anybody who had even the slightest knowledge about the matter would reach the same conclusion as the index. The index looks into risks and opportunities in the context of social and environmental issues that the companies face. However, what is interesting is that the index does not look at sustainability from an ethical and charitable point of view. It would help an investor should he want to make an ethical investment but it believes instead that sustainability is a perfectly profitable business opportunity. The index identifies the business trends of the future and how ready companies are in the face of these trends. The index prepares a questionnaire that differentiates between companies in a particular sector and compares them. Thus, it tries to put a value to sustainability and to integrate sustainable business practices with financial performance. After that, it functions just like an asset manager where it buys if the evaluation is high and sells if the evaluation is low.

Prosperity of the Periphery

"In the 21st century we must shift our mindset from quantitative targets to the quality of growth. Dr Manmohan Singh, India's Prime Minister, has been strongly advocating that quality of growth matters the most and inclusion and sustainability are the most significant qualities that we need to promote. However, it is not possible to think of inclusion and sustainability in purely national terms. The world is turning into a global village. We need to contemplate how inclusion and sustainability can provide the basis for a new global order.

Strategic Foresight Group has brought out salient features of tomorrow's world economy in its emerging issues report for the period 2011 to 2020. One important characteristic of the next decade is going to be the search for non-fossil energy and clean technologies. The Government of India recently joined an international nuclear fusion project in France. If this experiment is successful, our dependence on fossil fuel will decline. India is only one of the seven member countries of this elite scientific club.

Within the country, we are trying to encourage solar photovoltaic technology, biomass energy and clean technologies. An Indian automobile company is collaborating with technology pioneers to produce the first ever car run on compressed air. In Maharashtra, those who are conceiving new townships are seized with the concept of sustainable and environmentally viable cities.

Of course, it is essential that the benefits of technological breakthroughs are not limited to a few wealthy people. The greatest challenge in the early part of the 21st century is the prosperity of the periphery. We believe that inclusion, sustainability and poverty mitigation are mutually reinforcing objectives. Moreover, together they contribute to social peace and political stability. On the other hand, social peace and political stability are cornerstones of economic growth. It is precisely because the state of Maharashtra has been able to provide conditions of peace that we are the highest recipients of FDI year after year."

-Mr. Vilasrao Deshmukh,
Chief Minister of Maharashtra

Chief Minister Deshmukh with Wonil Cho

Chief Minister Deshmukh with John Maresca

Conclusion

The Conference Chair and Co-chairs captured the spirit of the conference in the Concluding Plenary.

- Steve Killelea underlined the importance of building international institutions that are capable of addressing problems of human society.

- Sir Mark Moody-Stuart emphasised the need for anticipatory thinking to look ahead and prepare for the future.

- Maria Cattaui focussed on the need to adopt a comprehensive approach whereby all solutions are explored including behavioural shifts, intelligent government, better political knowledge and regulatory systems, healthy scepticism of current solutions, and building of coalitions of like-minded forces.

- Ambassador John Maresca emphasised the role of leadership and education to prepare leaders to face challenges of the future.

- Chandrasekhar Bhave explained that personal and social values go together and a responsible future would need an integrated and value-based approach to life at a micro as well as macro level.

> "Are we pro-change or no-change?
> That is a choice we have to make."
> Steve Killelea, Conference Chair and Founder of Global Peace Index

Conference Programme

Thursday, June 26, 2008: Grand Opening, Convocation Hall of the University of Mumbai

16.00 - 17.00 Reception

17.30 - 18.30 Inaugural Ceremony

- Arrival of the President of India; received by Mr Kumar Ketkar, Chairman of the Conference Organising Committee
- Welcome and introduction to Conference by Mr Sundeep Waslekar, President of Strategic Foresight Group
- Lighting of traditional Indian lamp by the Honourable President of India and other dignitaries
- Mr Steve Killelea, Conference Chair and Founder of Global Peace Index
- Sir Mark Moody-Stuart, Chairman of the United Nations Global Compact
- Mr Vilasrao Deshmukh, Chief Minister of Maharashtra
- Mr S C Jamir, Governor of Maharashtra and Goa
- Inaugural Address by Honourable Smt. Pratibha Devisingh Patil, President of India
- Vote of Thanks by Dr Arun Sawant, Ag. Vice Chancellor, University of Mumbai
- National Anthem

18.45 - 18.55 Introductory Address

- Ms Ann Ollestad, Ambassador of Norway to India

18.55 - 19.55 Leaders Dialogue on Responsibility to the Future

- Strategic conversation conducted by Ms Maria Cattaui, Co-chair and former Secretary General of the International Chamber of Commerce
- Prof Lou Marinoff, Founding President, American Philosophical Practitioners Association

- Dr Michael Nobel, Chairman, Nobel Charitable Trusts
- Dr Monty Jones, World Food Prize Laureate and inventor of new rice for Africa
- Dr Poul Engberg-Pedersen, Director-General, Norwegian Agency for Development Cooperation

20.30 - 22.30 Dinner

Hosted by Hon. Chief Minister of Maharashtra

Friday, June 27, 2008
Nehru Centre, Mumbai

10.00 - 10.15 Introduction to the United Nations Global Compact

- Ms Melissa Powell, Global Compact Executive Office

10.15 - 11.00 Leaders Dialogue

- Conversation with Mr Steve Killelea and Sir Mark Moody-Stuart on business and peace, conducted by Ms Maria Cattaui.

11.00 - 11.30 Break

11.30 - 13.00 Strategic Dialogues and Roundtables

Strategic Dialogue on Water and Food Security

- Dr Tariq Ahmad Karim, former Bangladeshi Ambassador to the United States
- Dr Monty Jones, World Food Prize Laureate and inventor of new rice for Africa
- Mr. Sompal, Deputy Chairman, Planning Commission of Madhya Pradesh, former Minister of Agriculture and Water Resources of India,
- Ms Melanie Greenberg, President, Cypress Fund for Peace and Security
- Mr Deepak Jolly, Vice President, Coca-Cola India
- Moderator: Mr Michael Garrett, Chairman, The Evian Group

Roundtable on ICT Technologies for Peace-building and Crisis Management

- Amb Daniel Stauffacher, Chairman, ICT4Peace Foundation
- Dr Linton Wells II, Force Transformation Chair, National Defence University, former Acting Assistant Secretary of Defence of the US
- Mr Alain Modoux, former Assistant Director General of UNESCO
- Mr Sanjana Hattotuwa, Special Advisor of ICT4Peace Foundation
- Gen Satish Nambiar, Director, United Services Institution of India
- Gen Deepak Sammanwar, former Director General Military Intelligence of India
- Mr Dag Nielsen, Director, Ericsson AB
- Moderator: Ms Barbara Weekes, Director, Geneva Security Forum

13.00 - 14.00 Lunch Break

14.00 - 15.30 Roundtable on Innovative Education for Peace

- Amb John Maresca, Rector, United Nations University of Peace
- Dr. Devisingh Shekhawat, Founder, Vidya Bharati Group of Educational Institutions
- Dr Y S Rajan, Chairman of the Board, Nalanda University
- Ms Dhanashree Talwalkar, Leader of Swadhyay Movement
- Mr Sunil Karve, Vice Chairman, Mumbai Educational Trust
- Moderator: Prof Lou Marinoff, Founding President, American Philosophical Practitioners Association

15.35-17.00 Roundtable on the Role of Media in Crisis Prevention, Peace and Intercultural Understanding

- Mr Dileep Padgaonkar, Editor of India & Global Affairs and former Editor in Chief of The Times of India
- Mr Rami Mroz, Countering Violent Extremism Initiative, East West Institute
- Mr Indrajit Gupta, Editor - business magazines, Network 18 Media Group
- Ms Mona Eltahawy, Columnist, New York
- Mr Ahmed Soliman, Columnist, New York
- Mr Paul Gillespie, Editor, Irish Times
- Mr Andrew Williamson, Global Director of Custom Research, Economist Intelligence Unit
- Moderator: Mr Ahmet Oren, CEO, Ihlas Holdings of Turkey

14.00 - 17.00 Strategic Dialogues

Strategic Dialogue on Energy Security, Climate Change and Clean Technologies

- Dr Michael Nobel, Chairman, Nobel Charitable Trusts
- Dr Stein Tonnesson, Director, Peace Research Institute of Oslo and Board Member of Norfund
- Mr Jack Rivkin, Chief Investment Officer, Neuberger Berman
- Mr Nicholas Parker, Chairman of Cleantech Group and innovator of the clean-tech investment concept
- Dr Ramesh Thakur, Distinguished Fellow at Centre for International Governance Innovation (CIGI) and former Vice Rector of UN University

- Prof Kuni Miyake, Ritsumeikan University of Japan
- Mr Shailesh Haribhakti, Chairman, Global Warming Committee of Indian Merchants Chamber
- Mr Mark Runacres, Senior Visiting Fellow, The Energy and Resources Institute (TERI)
- Mr Fernando Napolitano, Vice President and Managing Partner, Booz & Company.
- Moderator: Dr Frank Jürgen Richter, President, Horasis: The Global Visions Community

Strategic Dialogue on Responsible and Ethical Financial Investments

- Special address by Mr C B Bhave, Chairman, Securities and Exchange Board of India
- Mr Edoardo Gai, Head Sustainability Services, SAM Group
- Mr Guillaume Taylor, Partner, de Pury Pictet Turrettini
- Mr Pierre Trevet, Managing Director, Innovest Strategic Value Advisors Inc
- Mr Clyde McConaghy, President and CEO of Global Peace Index
- Mr Bharat Tripathi, Director, Forward Markets Commission of India
- Moderator: Dr Thomas Streiff, The Sustainability Forum Zürich

17.00 - 17.30 Networking Break

- Closing Plenary on collaborative solutions
- Chaired by: Mr Kumar Ketkar, Chairman, Conference Organising Committee

17.30 - 18.15 Feedback Session

18.15 - 18.45 Keynote Address by Mr. Sushil Kumar Shinde, Minister for Energy, Government of India

18.45 - 19.30 Concluding conversation with Conference Chair and Co-chairs

20.00 - 22.00 Dinner

Hosted by Mr Abhijit Pawar, Publisher of India & Global Affairs and Managing Director of Sakal Group

Saturday, June 28, 2008
Nehru Centre, Mumbai

10.00 - 12.30 Strategy Roundtable on Initiatives for Action

- Opening Address by Mr. Fernando Napolitano, Vice President and Managing Partner, Booz & Company, and Author of the book "Megacommunities"
- Initial Comments by Conference Chair, Co-chairs, Leaders of Knowledge Partners
- Observations by Dr. Poul Engberg-Pedersen, Director-General, Norwegian Agency for Development Cooperation and Dr Vijay Page, Director, MET Institute of Management
- Open discussion
- Chaired by Mr. Sundeep Waslekar, President of Strategic Foresight Group

13.00 - 14.30 Lunch

Hosted by Mr. Shailesh Haribhakti, Chairman, Global Warming Committee of Indian Merchants Chamber

About Strategic Foresight Group

Strategic Foresight Group was established in 2002 to create new forms of intellectual capital. In merely half a decade, it has demonstrated that it has conviction and competence to develop an alternative worldview in a constructive way. We have also created intellectual and political assets to draw input from all continents and deliver output to decision makers anywhere in the world.

We have advised governments around the world and produced scenarios and innovative policy concepts that have been discussed in august bodies including the Indian Parliament, the European Parliament, Oxford University, UK House of Commons, World Bank, the League of Arab States, Bibliotheca Alexandrina, World Economic Forum, Swedish Defence Commission, Global Futures Forum, Geneva Security Forum and others. Our research findings and views have been covered by the world media including BBC World Television, CNN, International Herald Tribune, Financial Times, New York Times, The Straits Times, Gulf News, Khaleej Times, Asahi Shimbun and almost all major newspapers in India and Pakistan.

Research

Strategic Foresight Group undertakes forward-looking research in geopolitical, economic, and societal changes. It may also add scientific and technological changes in its portfolio. Our research examines future trends and discontinuities in spaces where geopolitics intersects with business, economy, society, religion and technology. In addition to specific client-driven research projects, SFG also analyses emerging risks and opportunities on a global basis. We published the first Emerging Issues Report on Global Security and Economy at the beginning of 2008. This has given rise to new research projects in soft security areas, including water and energy.

Initiatives

SFG launches initiatives for dialogue and policy change to address a specific problem. The initiatives are backed by innovative research and engage senior level policy makers who are most relevant to bring about a change. These may include cabinet ministers, members of legislature, advisers to Heads of Government, leaders of multilateral organizations, and leaders of business groups. SFG also engages in direct consultation with Heads of Government.

Since 2003, SFG has been involved in a complex initiative to address the deficit of trust between Western and Islamic countries. Since 2004, SFG has launched several initiatives to sensitive policy makers in conflict zones about costs of conflict. In the next few years, SFG is poised to launch initiatives in the area of water security, energy and technological disparities.

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Chief Minister Vilasrao Deshmukh lights the traditional lamp while R. R. Patil, Devisingh Shekhawat, Governor Jamir, President of India, Sundeep Waslekar, Ilmas Futehally and Steve Killelea look on. Also seen Kumar Ketkar and Shrikant Menjoge.

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