

How India and Japan can Build the Next World Economy



Speech at the Policy Forum of the India Japan Global Partnership Summit
Tokyo 6th September 2011

By Jan Mortier
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The Civitatis Forum





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Hon. Yukio Hatoyama
Former Prime Minister
Japan



Hon. Shinzo Abe
Former Prime Minister
Japan



Hon. Yoshihiko Noda
Prime Minister
Japan



Hon. Yoshiro Mori
Former Prime Minister
Japan



Hon. Naoto Kan
Former Prime Minister
Japan



H.E. Alok Prasad



Mr. Sam Pitroda



Mr. Mukesh Ambani



Mr. Rajesh V Shah



Mr. Vibhav K Upadhyay

The India Japan Global Partnership Summit

Ushering in a new era of global ties, India and Japan initiated a platform for synergizing their energies towards a new socio-economic framework of development - not just within their own territories, but in Asia and across the world with the inauguration of the three day India-Japan Global Partnership Summit 2011 in Tokyo on September 5th, 2011.

Welcoming more than two thousand prominent leaders from the business, policy and the academic domains of India, Japan and many other parts of the globe, Vibhav Kant Upadhyay, Chairman of the India Center Foundation and Founder-Director General of the Summit, explained his vision of a 5 per cent versus 95 per cent model of development. He said that if the 95 per cent of the world which is developing and under-developed emulated the development model followed by the 5 per cent of developed nations, the world would not be able to sustain it. He further elucidated how the Summit must lead the vision for the new socio-economic framework for development, including energy efficiency, environmental responsibility and sustainability, which the 95 per cent need the most.

The summit was opened with the special address by His Excellency Dr. Manmohan Singh, Prime Minister of India, read by His Excellency, Alok Prasad, Ambassador of India to Japan. The opening ceremony saw the unprecedented presence of four Former Prime Ministers of Japan – H.E. Shinzo Abe, H.E. Yukio Hatoyama, H.E. Yoshiro Mori and H.E. Naoto Kan.

Policy Forum Session of the Summit (Strategic and Global Partnership)

In this session policy makers, opinion leaders and business leaders from India, Japan and Global Partner countries sought a vision for the India-Japan strategic and global partnership over the next decade and deliberated on how the new socio-economic framework evolving between India and Japan can serve as a model to be emulated by global partner countries. The Policy Forum was observed by His Excellency Mr. Yoshihiko Noda, The Prime Minister of Japan.

The Panelists were:

H.E. Hideaki Domichi, *Ambassador in charge of Economic Diplomacy and Former Japanese Ambassador to India, Japan.*

Rajive Kaul, *Chairman, Nicco Corporation, Former President, Confederation of Indian Industries, India.*

Jan Mortier, *Founder and Executive Chairman, The Civitatis Forum.*

M.V. Rajashekharan, *Former Minister of State for Planning, India.*

Tomoyuki Taira, *Member of the House of Representatives, Japan.*

The Discussants were:

Kalikesh N. Singh Deo, *Member of Parliament, India.*

Khim Lal Devkota, *Lawmaker & UCPN (Maoist) Leader, Nepal.*

K.V. Kesavan, *Distinguished Fellow, Observer Research Foundation (ORF), India.*

Nobuo Kishi, *Member of the House of Councillors, Japan.*

Shuhei Kishimoto, *Member of the House of Representatives, Japan.*

Yasutoshi Nishimura, *Member of the House of Representatives, Japan.*

Gagan Kumar Thapa, *Lawmaker and Congress Leader, Nepal.*

Yuichiro Tamaki, *Member of the House of Representatives, Japan.*

The Policy Forum was moderated by:

Yoshimi Ishikawa, *Director General, India Centre Foundation, Japan.*

Recommendations arising from the Policy Forum:

Education: Matching India's need to build 2,000 universities to be able to take the gross enrolment from 11 per cent to 25 per cent with a huge surplus capacity in Japanese institutes of learning.

Health Sector: Stretching the scope of the health sector beyond the pharmacy and intellectual property sectors, with a focus on learning from best practices.

Agriculture: Inculcation of innovative best practices to improve agricultural yield and productivity with a viewpoint of being a contributor in terms of global perspectives.

Energy: Reducing carbon footprints to the minimum without affecting the higher rate of economic growth and considering new energy resources.

ICT: Learning from the creative potential of Japan in utilizing IT in its multiple ways to create gainful employment in India and Japan.

Policy Initiatives

One: India and Japan should co-operate jointly on the reform of the international financial architecture, particularly regarding what India and Japan can do to reform the global order in collaborative arrangements.

Two: Policy initiatives require addressing the problem of shortages of exchange in deepening the bilateral ties.

Three: Addressing the issue of potential growth in trade between the two countries in the purview of the fact that Indian - Japanese trade is a quarter of that between India and China and one third of that between India and the U.S.

Four: Proposal for Prefecture (Japan) -State (India) decentralized cooperation systems.

Five: Joint Exploration of oil elsewhere to address the problem of Energy Security.

Six: India - Japan Civilian Nuclear Agreement.

Seven: Proposal to include Nepal as a Global Partner Country with India and Japan.

Speech at the Policy Forum: Strategic and Global Partnership Session:

‘How India and Japan can Build the Next World Economy’

Mr. Jan Mortier,

Founder and Executive Chairman, The Civitatis Forum.



Hare Krishna, Konnichiwa. Mr. Chairman, Mr. Prime Minister, Your Excellencies, Honorable Members,

The challenges that mankind will face this century are: The potential heating of the planet's atmosphere from two to four and maybe six degrees Celsius; the melting of the Tibetan Ice Plateau which will create water shortages for over one billion people; Oceanic ecosystems that produce oxygen have mere decades left and are already at eighty per cent depletion; The risk that rising sea levels in a warmer world will displace tens of millions of people; The global population growing by an extra 2.5 billion people by 2050, all of whom will need more food and more energy. Resources all over the planet are depleting, with global uranium reserves forecasted to be exhausted in eighty-five years and world reserves of iron ore in sixty years.

The dream of a more equitable new world order between the East and West at the end of the Cold War did not transpire. Instead, the Anglo Saxon nations assumed the high ground and developed systems of global governance for their own national interests and in so doing, have created a global socio economic system in which eighty per cent of this planet's population is forced to live on less than ten dollars a day while the other twenty per cent unsustainably consume the majority of the world's natural resources. This unsustainable socio-economic system has caused mankind's civilization to overshoot the carrying capacity of the planet, causing the Earth's natural systems to begin to react against the human systems, the consequences of which may be the demise of human civilization.

All of these complex interlinked challenges are greatly compounded by the depletion of global oil reserves which have unequivocally reached their peaks. Energy, which is a six trillion dollar market annually, will continue to rise in cost to obtain and increasingly expensive costs of production will require the diversion of capital to extraction that could otherwise be put toward investment in maintaining the global industrial and human support systems, such as health, education and industrial plant necessary for a functioning economy.

Civilization is ultimately dependant on the effective conversion of natural resources to cheap energy. As depletion of the world's industrial resource base accelerates and cost-effective energy for industry becomes increasingly scarce, there will be a growing lack of confidence in the global economy which will increasingly undermine it, and if unaddressed, will lead to macrocosmic systems collapse, not only of the world economy but of our globalised civilization. We are already witnessing the beginnings of this global lack of confidence now.

So Human Civilization faces two problems;

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1. Our world economic system has affected, through depletion and pollution, the natural Earth systems and these systems are now reacting against us, potentially threatening the collapse of the natural ecosystems that support human life.
2. The Earth's resources on which the world economy depends are finite and have been metabolized unsustainably and faster than the rate at which they can regenerate. Globally essential resources are in a state of depletion. Realization of this causes lack of confidence and lack of investment, which risks economic collapse.

The world needs a positive vision to overcome these challenges.

Civitatis has identified an achievable political reality that can avert such a worst case scenario by consciously designing a new world economy and paradigm shift away from the 'business as usual' scenario to a long-term innovation one.

The present Kondratiev Cycle that began with the Industrial Revolution is coming full circle and a new innovative wave must be injected into the world economic system to keep the wheel of human civilization turning. The drivers of growth for the consumption based economy are also nearing the ends of their cycles and not even the proposed "sustainable green economy" can transcend this challenge of the end of the long industrial cycle. So the foundations for a new long cycle must be laid now while the resources and capital are still available.

To do this India and Japan should create a new "innovation economy" based on research and development and technological innovation, by cooperating to build a new energy industry that can rise globally as the old Carbon based industry subsides and dies.

Embarking on this great endeavour will require the conscious design and construction of a new energy infrastructure with a view to returns in the long-term. If done in earnest it will ensure a cyclical flow of investment that creates continual "output" through the world system which in turn will ensure further input for investment into the Indian and Japanese economies. Japan and India would then become the drivers of this new world economy.

The returns gained will create an output that can then contribute to the cycle of global investment that keeps the wheel of the world economic machine turning.

The Future

The 'business as usual' scenario, which the world is continuing to pursue, in the 1972 Report to the Club of Rome: Limits to Growth, said that global economic growth would end sometime in the next one hundred years if present human and industrial trends continue. So far this warning has been unheeded. The world will have to come up with some new solutions well before 2072 to ensure the continuance of civilization. We have less than sixty one years in which to act. As the implications of peak oil begin to affect the confidence in the global economy and these implications become more apparent, the window for action becomes narrower.

With peak oil and gas, world capital investment will decline, despite remaining reserves. The hope for a high tech economy as a potential solution is precarious given that "Rare Earth Elements" on which high tech industry and defence depends, along with renewable energy production technologies such as wind turbines and photovoltaic solar, are also finite.

Sustainability measures are not going to be enough when considering that population growth is the principal driver of the world problématique and the overshoot of the carrying capacity of the planet. Economic sustainability proposals, such as the report to the Club of Rome 'Factor

Five: Transforming the Global Economy through Eighty per cent Improvements in Resource Productivity' by Professor Ernst von Weizsäcker, are positive proposals and possible but are only fine tuning the end of the known old paradigm economy. The reality is that for the continuation of civilization radical multilateral global efforts will need to be implemented within the next twenty to thirty years and that it will take the enlightened action of industry, investors and just a few governments to begin.

The world economy today may well be entering a global depression. But we know that the future is not preordained. We must reject pessimism in evaluating our current and future possibilities. Mikhail Gorbachev once said: "In every kind of situation there is always room for alternatives, there is always room for initiative."

Humanity has the capacity for unlimited imagination, innovation and motivation and this capacity can be drawn upon at times by individuals or through concerted cooperative efforts by elites. This meeting of these two great nations here today has the capability to construct a new innovation wave in the world economic cycle that can see mankind brought from the abyss of a collapsing world economy to a new cleaner and sustainable one. The only choice is whether there is the will to begin this great work.

In the 1920s and 1930s depression, American policymakers tried many models to provide an economic stimulus to provide work for the people. Eventually a working model was found in the application of Keynesian-style economics. These were the two 'New Deal' and the 'Great Society' by two presidents. From Roosevelt's first New Deal (1933) which addressed banking, railroads, industry and farming to the second new deals (1934-36) that strove for full employment through the Wagner Act¹, promoting labour rights and unions, social security and public works. In the 1950s Dwight Eisenhower continued the programmes and in the 1960s Lyndon Johnson went further by enacting the 'Great Society' for eliminating poverty, improving social justice and employment through public projects.

The expenditure of the New Deal programmes would be equivalent to 600 billion dollars today. American public spending on war programmes reduced unemployment from fourteen per cent in 1940 to less than two per cent in 1943 creating ten million new jobs.² War is not an appropriate endeavour for mankind or to increase GDP growth anymore, however job creation through infrastructure and public works programmes is, particularly programmes which have multiplier effects for the future economy. Energy production has always been the key multiplier.

The two thousand Megawatt Hoover Dam for example, completed in 1936, in today's value cost 815.4 million dollars to build. Today it produces an annual power output of 4.2 billion KWh³ and employed many people through companies involved in its construction. The works importantly also maintained industrial capacity, something we must do globally during this recession. Large scale projects can have multiplier effects for the future economy and creating jobs thus increasing social happiness. As we are approaching the end of our present economy it is prudent to commence the great works that we will need for the near future now.

¹ National Labour Relations Act 1935.

² Harold G. Vatter, (1998) *The U.S. Economy in World War II*.

³ U.S. Department of the Interior. (February 2009) *Hoover Dam Frequently Asked Questions and Answers*". Washington, D.C. (<http://www.usbr.gov/lc/hooverdam/faqs/powerfaq.html>. Last Accessed Online: 2009-08-04.) "Hoover Dam generates, on average, about 4 billion kilowatt-hours of hydroelectric power each year."

Proposals for a sustainable economy such as Professor Weizsäcker's 'Factor Five'⁴ and Jeremy Rifkin's 'Third Industrial Revolution'⁵ are positive steps for the near term and economic ministries should analyze these proposals in detail, but humanity needs to begin thinking about the long term.

Faced with limits of investment for resource extraction, planetary limits for pollution absorption and population growth, humanity has no choice but to convert into a sustainable civilization, and must do so now before the opportune window to do so closes. The models such as those by Jay Forrester at the Massachusetts Institute for Technology for the Club of Rome's Predicament of Mankind Project that led to the world famous book: "Limits to Growth" are based on a finite world comprising finite resources.

These models are presciently accurate - our planetary resources are indeed finite as we have alarmingly discovered recently. However, the capacity for mankind to overcome adversity is infinite. Martin Lees once said: "If we do not like the models then we must change them." Mankind must therefore consciously choose to project for itself a new reality. The Indian and Japanese civilizations are uniquely placed rather than the West to do this given the dynamism of their economies and the mentality of their peoples.

As we reach our planetary limits, it is logical that: A) We must stop burning and metabolizing our world, as it will react against us and may already be doing so as shown by James Lovelock and others. B) We need a new kind of philosophy or global ethic that illuminates our interdependent symbiosis with the planet. And C) We need to traverse our conceptual horizons by beginning to conceive of the impossible as the possible and take the next emboldened step of civilization.

What Japan and India will need to do to build the New World Economy

Civilization is fundamentally dependant on energy. The present world energy market is worth six trillion US dollars per year. As the world realizes the implications for the depletion of oil reserves those nations best placed for the new system of energy production will be the leaders of the world in the coming centuries.

According to the World Bank the GDP component of both the Indian and Japanese economies for Industry are relatively the same, at 24.9 per cent for Japan and 26.3 per cent for India. We know that industry is a reliable and traditional driver of job creation and of growth. Both nations should increase their GDP quotient apportioned to industry. Japan can assist with technology transfer to India and in turn can benefit from India's abundant agricultural production capacity at 18.5 per cent. Both nations should divert more government investment and encourage the private sector into increasing investment in research development. Nations with a solid research and development base will be well placed for the next global economy. India should take the radical step of increasing its share of research and development from one per cent of GDP to match the present share of Japan's at nearly four per cent, while Japan should aim to boost its research and development GDP share to six per cent. Both nations should cooperate closely to achieve this and establish inter-ministerial contact councils to achieve these aims.

⁴ Ernst von Weizacker, Karlson Hargroves, Michael H. Smith with Cheryl Desha and Peter Stasinopoulos, (2009) *Factor Five: Transforming the global economy through 80per cent improvements in resource productivity*, London: Earthscan.

⁵ Jeremy Rifkin, *The Hydrogen Economy: The Third Industrial Revolution: Leading the Way to a Green Energy Era and a Hydrogen Economy*. (<http://www.foet.org/lectures/lecture-hydrogen-economy.html>)

Energy production will be the principal driver of the new world economy. If humanity does not wish the same fate as the ancient Easter Island and Mayan economies –collapse, we must search for alternative sources of energy as the most urgent global priority. India and Japan are uniquely placed to secure the lion's share of the global energy market if work begins now to invest in the research and infrastructure needed to secure new sources.

There is no energy resource on this planet that can provide enough energy for civilization to replace oil. Out of the future potential energy mix, most of which contributes to global heating and puts civilization at risk of extinction, a viable and abundantly obtainable resource does exist.

Helium-3 is one hundred times as precious as gold and is a non-radioactive magnetisable hyperpolarized gas. It is used in neutron detection, extremely low temperature cryogenics and magnetic imaging. It is rare on Earth but found as a by-product of thermonuclear reactions. It is free of radioactive by-products and an experiment in the United States of America has proved it to work. On an industrial scale it can be used in fusion reactors and does not corrode reactor walls as other gases do.

In 2008 India sent the Chandrayaan-1 unmanned probe to the moon at a cost of 3.86 billion Indian rupees (90 million US Dollars) for chemical and mineralogical mapping of the entire lunar surface at high spatial resolution using NASA's Lunar Impact Module. The first step towards founding a new world economy has already therefore been taken by India. All that is required is the will and investment to make it a reality.

For billions of years the sun has been bathing the lunar regolith with photons and as a result Helium-3 has built up in vast proportions on the lunar surface. Estimates indicate that obtainable reserves exist in industrial scale quantities. One space shuttle load of Lunar Helium-3 would be enough to meet the current rate of US Energy consumption for one year. China, Russia and India have all expressed an interest in mining the lunar Helium-3. The question is which nation or group of nations will win the next energy rush.

Ouyang Ziyuan who runs the Chinese Lunar Exploration Programme has stated on several occasions that one of the main goals of the lunar programme would be the mining of Helium-3, and each year "three space shuttle missions could bring enough fuel for all human beings across the world." His nation's intent is clear. In January 2006, the Russian space company RKK Energiya announced that it considers lunar Helium-3 a potential economic resource to be mined by 2020, if funding can be found.

India's Chandrayaan-1 mission has already laid the groundwork with a 70 per cent mineral mapping of the lunar surface. Much more work needs to be done. With Japanese industry and technology, India and Japan could jointly devise a programme to realistically mine and process this clean energy resource for use on Earth. If the governments of these two great nations develop the technology and foundations for the infrastructure, the required investment from the markets will come.

Great endeavours require great investment. It was done with the Hoover Dam and the Apollo missions so it is possible. One only needs to compare the sums of global expenditure on other things to see that it is merely a matter of diverting capital expenditure by government, which will in turn attract the private sector.

The combined bailout of the banking system prior to this year's (2011) round of bailouts was 3,800 billion US dollars, that is 557 dollars for every human being alive today. We can compare this sum to other expenditures, The US Federal Budget deficit was at the time, 2.9 trillion dollars, The ITER Multilateral consortium for fusion that aims to generate 500 MW of

energy when online has a start up and reserve budget of 750 billion dollars. In 2009 the USA spent 607 billion dollars on defence, China spent 84.9 billion and annual global military spending exceeded 1.464 trillion dollars in 2008.

The European space budget is \$5.4 billion and prior to the 2011 cuts NASA was \$17.6 billion with Russia spending \$2.4 billion. Estimates are that China's space budget was \$1.5 billion in 2007. The Space Foundation estimates that global expenditure on space for 2009 reached \$261.6 billion in government budgets and commercial revenue, almost 40 per cent growth despite the global recession. Globally annual expenditure on space programmes is 14.4 times less than the previous round of global banking bailouts.

The point of illustrating these figures is that humanity does have a choice. We can choose to use public money for long term prosperity and ultimately public good through investing in essential foundations for the continuance of national energy security and human civilization, or to attempt to shore up a collapsing socio-economic world system. If such sums for bailouts are possible then it is equally possible for governments to cooperate with industry and investors to lay the foundations for a new global industrial revolution that if you so choose could have its joint home in India and Japan.

It is only logical that humanity should become sustainable and launch the economy off terra in search of new opportunities and new resources. The technology exists to do so and in the local neighbourhood there are resources there for use in this endeavour. It would be preferable that human global society convert to sustainability first. However self interest and quests for profit is a fundamental part of human nature and would imply that unless a new empathic creation myth based on solidarity and earth symbiosis can become the new global ethic, it would appear that the business as usual scenario will continue to run its course until global economic and natural systems collapse which, as forewarned by the Club of Rome in 1972, will occur this century.

The present global economy should be: A) shifted to sustainability and efficiency and: B) in the grandest of Keynesian styles, replace the consumption element with a productive element toward this great endeavour - a new energy based industrial revolution to secure new sources and to create new supply channels for the world's energy requirements.

Mankind has the need for a global endeavour that gives a purpose and meaning beyond mere material consumption: a belief in a "Human Dream". Humanity can have a sustainable and technologically-advanced society that looks outward instead of inward with prosperity and abundance for all. The resources and technology already exist. Japan and India has the manpower, the know-how and the scientific and engineering skills for the construction, and the ability to invest the capital. It would be the greatest of investments for the future of our civilization. All that is required is the alteration of the mental model to transcend the horizons of perceived impossibilities, setting mankind on a path to a happier and more prosperous civilization with its foundation in a new global energy supply which could be secured and sold by India and Japan.

The Civitatis Forum convenes conferences for the Ambassadors to the Court of St. James's and international guests. www.civitatis.ch