CHAPTER-2

DISINTEGRATION OF SOVIET UNION

The disintegration of the Soviet Union is one of the most epoch-making events in the history of mankind. It has transformed the whole nature of global politics and dramatically altered the basic parameters in which the various relationships between nations, states and classes have hitherto operated. If the collapse of the Soviet Union meant that world would change, what emerges from the present flux will determine the direction of that change. However, the pace of change were so quick and fast that left the political analysts and observers completely confused and bewildered, starting with Gorbachev’s ‘Perestroika’ and ‘Glasnost’, followed by the ‘Union Treaty’ and unsuccessful ‘August Coup’, and, on top of all, the disintegration of the mighty Soviet Union, the events moved at such a speed that even before the fallout of one was assessed, the other came with a bang.1

Not surprisingly, almost eleven years after the fall of the Soviet Communist state, academics all over the world are still puzzled and perplexed trying to find out the reasons for the collapse. Unfortunately, no satisfactory answer to this question is available so far. At this stage, one can only speculate on why the USSR disintegrated. Paradoxically, the attempt to reform the Soviet system led to its collapse. A brief analysis of the reforms and the processes which emerged as their consequences would show that it was the conjecture of the objective and the subjective contradictions-the long term accumulation of weaknesses and short-term methods of their resolution, which broke the Soviet Union into 15 independent Republics.
Controversies surround the method of Gorbachev’s reforms of ‘Perestroika and Glasnost. But this doesn’t detract from the fundamental issues that reform was essential for the Soviet system. Gorbachev’s reforms were not evolutionary or systematic, they attacked the system from all sides and a number of issues were raised simultaneously. He introduced the policy of “Glasnost” which he felt would help mobilize people for reform and initiate a communication revolution in the Soviet Union. However, this in turn initiated the course of the legitimizing the Communist party and the very basis of the Soviet system. The reforms eventually brought the ethnic problems and subsequent demands for independence of republics to the forefront, promising to put an early end to Perestroika.

Whatever other weakness of the Soviet state that might be revealed by deeper historical analysis, one thing is clear, its biggest weakness has been the absence of democracy and civil liberties. Stalinism gradually transformed the Soviet system into a totalitarian structure, which, over the years, caused not only to economic stagnation but also to cultural stagnation and intellectual and creative atrophy.

Initially, the Soviet people assumed that the absence of democracy and civil liberties was a temporary aberration caused by the necessity of the socialist state to survive in a hostile international environment. But what seemed to be a temporary adjustment to concrete historical circumstances soon became a system, a structure which resisted democratization even when circumstances favored it.

Moreover, the Soviet economy has become lopsided with a very high defense account up to 40 percent of the budget was linked to defense expenditure. Technological upgradation was concentrated in the defense sector.
The consumer sector was continually neglected. In other words, rise of consumerism as great influence on the minds of new generation of soviet people. They were enamored by consumerism of the west. slow rate of economic growth in general and incompetent and inadequate number of consumer industries in particular in the former soviet union and all round the economic development in the capitalist countries of Europe and the USA led to the belief among the people of the ex-USSR that capitalism is a better economic system for them then socialism. That mood of the people is dominated by the sprit of consumerism in all walks of life. This new concept of consumerism backed up by personal freedom will have its new dynamism in the decades to come not only in the erstwhile Soviet Union and Eastern Europe but also in the whole world.  

**Causes of Soviet Disintegration**

Mikhail Gorbachev during 1986-87 was known for his policy of glasnost (openness) which provided a greater degree of freedom for mass media, and permitted free discussion of some previously censored aspects of Russian history as well as more critical views concerning contemporary politics. Now the new freedom contributed towards the creation of a distinctively Russian milieu in which, the media, now freed from censorship, acted as forum for debate of public issues not only exposing the contours of public sentiments but also shaping them. Freedom of press acted as a major form of control over executive power and newspapers took great pride in calling themselves the fourth state.

Gorbachev also announced a programme of economic reforms known as perestroika the purpose of which was to liberalize the economic system by introducing market mechanism, competition and private initiatives. In his view, transformation of the communist economy would be possible by freeing Soviet
industry from the stultifying effects of centralization and bureaucratization. He felt that the objective could be achieved by making Soviet enterprises more accountable and therefore more efficient. In his view they would survive only by cutting costs and retaining and expanding their market share.

Despite his best efforts, when Gorbachev failed to achieve the objectives he had in view particularly improvement in the economy, settlement of ethnic differences and rehabilitation of the administrative machinery through his two pet concepts glasnost and perestroika, he decided to give a chance to a new move. This he wanted to do through the signing of a Union Republic treaty which he proposed to get signed on 21 August 1991. This treaty sought to provide for a new decentralized set up in which the republics would be given more autonomy in a loose federation.

The western interpretation is constrained to concede the absence of political pluralism as one of the few main causes. This element of the western interpretation highlighting the absence of political pluralism, democratic norms and practices, disregarding of human rights and freedom in the former USSR, making signal contribution to the collapse has to be conceded to a great extent.\(^3\)

**The Root Cause for the Disintegration of Soviet Union**

The disintegration of the Soviet Union was economic in nature. At the heart of the problem was the Soviet Union’s command economy. But economic policy since its inception had been to increase inputs (e.g., labor, capital, raw materials, and energy) to bolster production. Up to the 1960s, this formula resulted in an impressive growth rate, because Soviet planners before then were still enroute to mobilizing the full potential of all available inputs. The problem with input-induced economic growth is that it is wasteful. By contrast,
capitalist economies carefully consider the extent and type of inputs used and compensated by maximizing productivity, that is, efficient production of goods.

In the 1970s, as economic power rose to prominence, the Soviet input potential was employed to the limit; productivity stagnated. Industrial plants overdue for overhauls simply continued to produce goods of questionable quality using time-honored methods of inefficient production. Lacking the stimuli that exist in open-market economies, dependent upon a derelict traffic and transportation system, and distinguished only by pervading corruption, the Soviet Union began to fall behind the standards set by the international economy.  

Thus the ‘collapse of the Soviet Union’ leaves a vacuum in the international political system. The Soviet Union played an important role against imperialism and western expansionism. It supported national liberation movements and assisted in the development of several third world countries, which found themselves against the Western bloc of countries.

DISINTEGRATION OF SOVIET UNION AND IMPACT ON INDIA

It is hardly an exaggeration to say that the break-up of the Soviet-Union in December 1991 dealt a body blow to India’s foreign policy framework, necessitating a thorough review of the assumptions on which this framework was based. Events happened with bewildering rapidity for which India had not prepared itself. The shock was more devastating as it was so unexpected and the collapse was so dramatic.

The Soviet Union was succeeded by the Russian federation and the people in Russia went through traumatic experience which has yet to end. Slowly and gradually the pieces are being picked and a surer policy is bringing
established. It has certainly been a painful experience, the almost precipitous lowering of living standards, the fall in production, the amazing rise in unemployment and the equally amazing levels of corruption, the decline in central authority, the specter of the ugly face of the mafia, the increasing disparities and so on.

The worst is perhaps not yet over, but at least now there is a semblance of order and some re-establishment of central authority. The wheels of production have started moving although even the previous levels have not been achieved. At least foreign policy assumed some recognizable shape and Russia has begun to assert itself in a somewhat more determined manner with better coherence and purposefulness. Both Moscow and New Delhi are discovering that geopolitical realities do not vanish even in the winds of change.5

The demise of the Soviet Union inevitably created serious problems, no less in Indo-Russian relationship too. Not just that no longer in a position to advance the kind of economic and technological assistance that it gave earlier, but also the two countries had to grapple with the need for a new adjustment in their relations. India had built up a rather heavy stock Soviet Union nearly $7 billion. Since and as long as was in rupee-ruble terms, the problem was , but the collapse of the Soviet Union changed the cash-strapped successor state teetering around an acute financial crisis first desired the payment to be made in hard currency. Moreover the exchange rate between a free falling rubble and rupee was a contentious issue.

What was worse was that the anarchic conditions in Russian industry and the virtually forced decentralization that had made the previously normal economic relationship cumbersome and hazardous. That accounted for the
steep decline in the trade between the two countries in the early year's following the demise of the Soviet Union.

For India the most critical area was the supply of defense equipment and spares from Russia. A significant segment of India's defense requirements had been supplied by Moscow. With the altered political and economic conditions in Russia the supply became erratic and fitful, creating serious bottlenecks and problems for India's armed forces. In the early years of the successor Russian Federation, this was a matter of serious concern to the Indian Government and the military brass. It took considerable deliberations and efforts from both sides to get a grip over the problem and turn around the defense relationship.

It appeared as if India would now be more conscious of developing new links with the western powers. But soon it appeared that the structural change in the constitutional frame work of the Soviet Union would not much affect India's relationship though it may have to renew it under different names. The new Commonwealth of states appeared to be keen on diversifying its relation with India which formerly was dictated by the interests of the former Soviet Union. Despite the changes that were taking place in the Soviet Union, it was not presumed here that some drastic change was going to occur in Indo-Soviet relations.

These developments created a new problem of diplomatic adjustment for India. To meet the challenge posed by the collapse of the USSR as a monolith, India decided to split its embassy in Moscow in two separate divisions, one accredited to the Union to deal with Boris Yeltsin on one hand and the other to the Gorbachev's Russian federation. Simultaneously two new consulates, one each at St. Petersburg (till recently Leningrad) and Vladivostok were opened to help continue India's relations with both.
India decided to upgrade its relations with the three Soviet republics Kazakhstan, Uzbekistan and Ukraine in order to provide direct dialogue with through diplomatic channel. It was felt in India that in view of Gorbachev's greater preoccupations with domestic economic and political issues, he would not be able to give much thought to the third world countries including India. Since the USSR was involved in Afghan crises, its first concern was to end the Mujahideen nuisance which it hoped to do with the active support of Pakistan. Moscow would have to be a little more liberal in extending economic aid to Pakistan and also to adopt a more pro-Pakistani attitude towards Kashmir. This may be at the cost of India but the Soviet Union had to look to its own national interests.  

According to some analysts, there were other factors which would not allow Indo-Soviet relations to get diluted. India had acquired enough self confidence to tackle new problems on its own resources. This would make its dependence on the Soviet Union irrelevant. Moreover, under the stewardship of Gorbachev the USSR had gone so close to the USA that India could develop cordial relations with each super power without offending the other. Then there was an unbroken continuity of cordial relationship between the two countries extending over four decades during which there arose hardly any issue on which there were irreconcilable differences. Such a sound relationship could not be wished away merely by some differences which would fade away in course of time.  

Despite the fact that Russia remained embroiled in the crisis after crisis it did not leave Indian affairs ignored. At the instance of Russia the two countries had agreed in January 1991, to change some important features of the 1971 treaty in order to eliminate the suspicion of the US and others that by that treaty India has compromised its non-aligned status. But the changed terms of
the treaty would confirm Indo-Soviet desire for continuing economic and scientific cooperation and the Russian supply of military hardware to India.

One important reaction to these changes was some corresponding change in Indo-US relations. The US agreed to supply defense material as well as to have joint naval exercises in the Indian Ocean area consistent with continuing the policy of non-alignment. This cooperation also upstaged US supply of high technology and scientific shares.9

The beginning of the end of Cold War is thus attributed to the launching of perestroika and glasnost and the disintegration Soviet Union as the logical culmination of it. Within this broad view, however, it does not mean that the eclipse of the Soviet Union was inevitable in the process even though Gorbachev’s new thinking acted as a catalytic agent all through. In brief, the end of Cold War need not have coincided with the end of the post war global system.10

On the contrary, India may come under greater pressure in certain matters such as the signing of NPT. Horizontal proliferation, on which both the Super Powers agreed ever since the signing of the NPT, has now acquired top priority.11 Following the dismantling of the Soviet Union, nuclear proliferation is in the forefront of global strategic thinking. As Russia, as a successor of the Soviet Union, may not always come to the rescue of India or other such countries, the global constraints in this respect have increased. Ever since Sept.-Oct. 1991, Indian public opinion and political parties have articulated deep concern over mounting pressure of USA on India to sign the NPT which both the Foreign Minister and Prime Minister of India denied. The latter even made a statement in the Parliament that India would not sign the NPT. Nevertheless, fact remains that in the new global situation, India’s position has
become more vulnerable on this issue. That USA can even indulge in arm
twisting tactic has been evident in the case of the supply of rocket technology
to India by Russia. Therefore, while an all out nuclear war between the two
Super Powers has become a remote possibility, so have the strategies of nuclear
deterrence and Mutual Assured Destruction. But, the nuclear or traditional arms
race between the local powers has not ceased to exist. It is for these reasons, it
can be said that the above stated advantages flowing from the end of the Cold
War need not accrue to the Third World countries as a matter of course.¹²

Because of India's friendly relations with the Soviet Union and
economic bond with the members of the socialist bloc, the change cuts deep in
to our foreign policy strategies followed within the framework of a bi-polar
global political and economic system. The strategy of our foreign policy of
non-alignment is being questioned and the need or utility of this treaty, it is
now being argued, stands outmoded. Special relationship with Russia has no
relevance in a unipolar global system in which Moscow strategically and
economically is not different from Washington, London, and Paris. The
imperatives of the new situation, therefore, demand that we should “dump our
traditional slothful friends and hitch our wagon to the western fast track.”¹³

Impact on Defense Sector

In the non-economic areas also the collapse of the Soviet Union has
affected India adversely. Indeed, strategically speaking, the most important
implications are in defense and military areas. India, as we know, was buying a
very large number of military weapons, equipment and hardware from the
Soviet Union. These included Mig fighter aircrafts, battle tanks, submarines
etc. During 1986-90, according to one estimate, about 73 percent of the total
value of arms imported by the Indian defense forces originated in the Soviet
Union.¹⁴ Practical difficulties which confront Indian armed forces since 1991
include, replacement of the spare parts as well as replenishment of the existing stock. The matter assumed such a seriousness that the Defense Minister of India, Sharad Pawar, had to rush to Russia in Sept. 1992 to bail out the armed forces of its immediate difficulties. At the end of the visit while there was some hope in the improvement of the situation, it was evident that ultimately India will have to explore alternate sources. Moscow, it is argued, may not be in a position to meet the Indian demands as paucity of funds may force Russians to close down their units. Besides, many of the Russian scientists and technocrats are reported to have left the country and got jobs in the Western countries where they are promised better salaries and employment opportunities.

whatever existing military weapons and hardware are in stock in the member states of CIS. They would like to sell them in the Western markets in order to earn foreign exchange. Above all, one significant advantage which accrued to India in procuring armaments and equipment from the Soviet Union i.e., on credit, is most unlikely to be revived.

Although Russia has put forward a proposal of military collaboration with India, but the harsh reality is that Moscow does not feel the strategic need of India in the post Cold War period. As a matter of fact decline in the strategic significance of India to Moscow began with the improvement of relations between the Soviet Union and China. Moreover, when Gorbachev started giving priority to good relations with the West which was to provide loans and technologies, there was a sea change in the geo-strategic perceptions of the Soviet Union. Now when Russia is strategically integrated with Europe and China has ceased to be a socialist rival, need for a strategic consensus with India does not have the same relevance as in the previous two decades. In brief, diplomatically India cannot hope to depend on Russia to the same extent as she did on the Soviet Union.
It is unlikely to expect USA to throw her former military and political allies, like Pakistan, totally in the lurch, if and when issues and problems like Kashmir come for discussion in the United Nations or elsewhere. All the same India cannot depend upon the Russia support in the changed situation. What is required is that strategic and diplomatic losses here and there should be compensated with new initiatives and modified responses to meet the exigencies of the new situation.¹⁸

Undoubtedly, defense ties constituted a critical element in Indo-Russian relations. Like the erstwhile Soviet Union, Russia came to be a predominant supplier of military hardware and spares to India. As the Indian armed forces had large quantities of Russian arms, the supply of spares had also to come from Russia. The figures provide their own tell-tale story: the rate of dependency for Russian spares was 40 per cent for the army, 60 per cent for the air force and 80 per cent for the navy.¹⁹ India’s defense requirement included modernization of equipment and a state-of-the-art air defense. We have already noted the early hiccups in this defense relationship as a result of the break-up of the Soviet Union and the breakdown of the centralized production apparatus in the economy as well as in defense industries.

Gradually the obstacles were overcome to an extent, and from 1997 onwards Russia was again on the way towards establishing a special position in the supply of defense-related equipment.

India and Russia decided in March 1997 to continue defense ties into the 21st century and Russia offered a new air defense system and a $10 billion military deal. Significant agreements were reached during Yevgeny Primakov’s visit in December (1999) when cross-century defense relationship was formalized. Described as ‘cooperation 2010 Document’ it envisaged
partnership in research, development and joint production of sophisticated equipment besides incorporating other defense areas.\textsuperscript{20}

The defense ties expanded phenomenally between 1999-2000. India contracted to purchase, among other items, 40 super class jet fighters, Sukhoi SU-30K, of which the first installment came last year. It may be noted that this was the modern jet fighter that had not even been fully inducted into the Russian air force and that China had been supplied only SU-27.29 Russia was also set to supply state-of-the-art T-90 battle tanks.

The then Defense Minister George Fernandez went to Moscow in June 2000 to negotiate new defense deals. He described his discussions with the Russian President and the Russian Defense Minister as ‘path-breaking’ with a $400 million deal for the supply of 100 T-90 main battle tanks (MBT) and for the production of another 200 MBT in India. It was also agreed that Russia would complete delivery of SU-30 MKI fighter jets to India by 2003 as part of an earlier $1.8 billion contract. The fighter jets would also be produced under license in India.

The two countries also formalized the defense deal during the Russian President’s visit by which India contracted in $3 billion deal to purchase 310 T-90 tanks and 140 Sukhoi 30 MKI multi-role fighters. What was significant was that the technology for their manufacture in India would also be transferred. India would also acquire subsequently the aircraft carrier Admiral Gorshkov and pay only for the refitting charges.\textsuperscript{21}

The problems relating to the debt issue elicited serious deliberation from both sides. The Russians agreed in July 1999 that Russian would utilize the rupee-ruble debt funds for investment in projects in India. This was decided
during the first Deputy Prime Minister, Dr. Viktor Khnstenko’s visit towards the end of July. Both countries are now taking the measure of the problem but a great deal remains to be done. Something vital will be missing in their relationship if the economic content was not deepened.22

With the liquidation of the Soviet empire the Central Asian Republics offer an opportunity for India of opening up whole “new vistas of economic cooperation”. Technologically and industrially backward as compared to the European Republics, the new sovereign States of Tajikistan, Azerbaijan and Uzbekistan would stand to gain as much out of expanded relationship with India. Geo-politically speaking, these Republics are closer to the sub-continent than Europe. South Block, it appears, has taken note of it as was evident from the visits of the political leaders from these countries in 1991-92 and economic agreements signed with them. It is through these new bonds of friendship with these States that India can hope to salvage whatever is left of the Indo-Soviet friendship.

Likewise changes have taken place in other parts of Europe and in the First World as a sequel to the developments in the Second World and Soviet Union. Hence, it is suggested that India will also have to build new bonds of trust and understanding and exploit opportunities even within the Western camp. To quote a former Indian diplomat:

“Now we will have to learn to lobby with the Americans and the Europeans and create groups which will look after our interests in their countries, both politically and economically.”23

As per this line of thinking, it will be unrealistic to deal with USA and Europe as one bloc. In fact, as was apparent during the Gulf crisis and War in
European countries, particularly both France and Germany, did not fully endorse US perception of the crisis and or the strategy of resolving the crisis. The difference was more conspicuous in the initial stages of the crisis. Eventually, however, because of their common oil interests in the region, Europe and USA waged a war under the aegis of the United Nations. But, in South Asia or in the sub-continent, these countries are in the process of re-defining their strategic and political interests.

Consequently, India will also have to learn to deal with them separately and not as a bloc. In the coming decades, it is possible that both USA and Western Europe would be competing for markets both in East Europe and in the Third World. Since India, too, offers a very large consumer market, such a competition can be diplomatically exploited by her to sit her economic advantage. Therefore, as United Europe is willing to help their freed neighbours and open the door for them to institutions like the Council of Europe and the European Community, Europe may act as an autonomous centre of power towards the close of the century. It is this global scenario which Indian policy planners would not be able to ignore altogether.

Like Unified Germany in Europe, Japan in Asia is another economic Super Power to be seriously reckoned with, by India and the Third World. Japan’s interests in Southeast Asia on East Asia have priority over those of U.S.A. Therefore, USA and Japan might compete with each other in these regions. It is in this context that India’s expanded diplomacy - economic and political - with Japan sounds most logical. The domestic economic crunch has motivated India to lure Japanese capitalists to invest money in the Indian market. Economic linkages may soon be extended to include the political and strategic areas. Rising Sun of Asia is all set to embark on a bold peace offensive. Two particular events, Tokyo’s decision to participate in the peace
keeping operations in Cambodia, and Japanese Emperor’s visit to China, signify the prospective role that Tokyo would play in the Asian affairs in future. Therefore, India might also have to learn to live with this changed reality.

In short, with the dismantling of the red and white blocs there are several more, grey and pink areas which have emerged on the global scene. A declined world offers conditions for building up of new cooperative and beneficial ties, both on bilateral and multilateral bases.  

In the new global order India will have to pay maximum attention to the improvement of relations with her neighbors. The courses of dialogues with most of the neighbouring countries including Sri Lanka, Bangladesh and China, which have been in progress on certain pending issues, are welcome developments. But, as far as Pakistan is concerned, no encouraging developments have so far taken place and an atmosphere of doubt and suspicion persists. Nevertheless, as internal situation in Pakistan is worsening, hopefully Islamabad does ultimately realize the futility of an anti-Indian posture in the region. In view of Pak-US ties becoming more problematic, there are signs of political realism. Pakistan’s top military brass have realized that a Military option vis-à-vis India will not be in the interest of people and the country. “If this trend continues the armies emerge as the pillars of confidence-building in Indo-Pakistan affairs.” If this happens, South Asia will be able to utilize adequate the given potential in regional cooperation. Resources, skills market opportunities needed for the long term economic industrial development of each country will then be possible.

It is characteristic of the new global order which has emerged in the post Cold War period and after the collapse the Soviet Union, that reordering of the
old ties and reasons are necessary. As a result of the process of dealignment, building new bridges, striking of new bonds of friendship and mutual cooperation are in sight. Undoubtedly, for India, it poses fresh challenges. But, it also offers new opportunities which, if handled with diplomatic skill and single-mindedness, can be exploited India’s advantage.  

**Impact of Economic Reforms in Russia on Trade with India**

The disintegration of the Soviet Union led to a disruption for many sectors of Indian economy. Many of these problems that Russia has been facing in its economic sphere have affected India’s trade and economic relations with Russia. As per on the basis of DGCI and S data, total trade turnover between India and Russia declined sharply from over $2,368 million in 1991-92 to $860 million in 1992-93. Although there was some improvement in trade turnover is subsequent years, during the period 1993-99, India’s exports to Russia have been in the range of about $600 to 1,000 million per annum. Annual export data does not show any steadiness and in fact there have been wide fluctuations in exports over the years. Similarly, India’s yearly imports from Russia have been fluctuating in the range of $250 to $850 million. For India, the former Soviet Union was an important trading partner of India, which is no more the case at present. Similarly, India has lost its position among Russia’s foreign trade partners. Moreover, there is lack of growth and dynamism which should be a matter of concern for the policy makers and business community at large.

It is important to note that some large industrial houses which were operating for many years during the Soviet era wound up their establishments in Moscow presumably due to uncertain and unfavorable socio-economic conditions prevailing in the country. Equally significant was the fact that several projects that were initiated in the early 1990’s by some reputed Indian
companies to set up processing units in Russia including that of Tata's tea processing and packaging unit miserably failed. India’s Finance Minister Yashwant Sinha has, in his address in Mumbai during Putin’s meeting with Indian business community, opined that there were a few shortcomings with regard to trade with Russia. There are some experts and businessman who consider that the prevailing mechanism of trade has not done much good for promoting Indo-Russian trade. What is more, 80-85 per cent of this annual export trade is accounted for by debt repayment funds (DRF) and that too mainly concentrated on a few traditional items such as tea, coffee, tobacco, rice, leather etc. There are very few nontraditional items in India’s export basket with the exception of pharmaceutical products. Hence one would legitimately question about the prospects of India’s trade with Russia beyond say, 2005 when DRF are fully utilized. Hence the visit of Russian President Vladimir Putins to India and agreements signed by both the countries and opportunities created after the visit should be utilized for finding ways and means to revive trade and economic relations between India and Russia.

Notwithstanding the prevailing situation as mentioned above, there has been a realization on the part of both in India and Russia about vast potential for growth in trade economic relations between the two countries given their large size, vast resource potentialities, skilled manpower etc. Both the countries have also good record of trade and economic co-operation during the Soviet era. Moreover, as pointed out by India’s finance minister at the Mumbai meeting with the Russian President, both the countries have initiated economic policies of liberalization, privatization and greater integration with the world economies which should enhance scope for closer economic ties. Hence as an appropriate step in this direction leading Indian business group such as the CII, FICCI have rightly taken initiative in identifying some specific areas of co-operation with Russia.
For instance in their assessment, given skilled manpower from India and Russia’s strong R and D base coupled with hardware design capabilities, there is vast scope for the two countries to collaborate in areas such as IT including advanced computing, biotech (including pharmaceuticals), telecommunication, training of personnel in managerial and financial services and so on. There are other areas of co-operation which are identified by Russia and were specified during the recent visit of the Russian deputy prime minister Ilya Klebanov to India. They include power engineering, new materials, utilization of industrial waste, environment control systems and instrumentation.

**Bilateral Level: The Techno-Commercial Impulse**

The end of the Soviet era posed special difficulties for India, particularly in the military realm given its huge dependency on Soviet arms transfers for spare parts and equipment. During this crunch, the Indian Defense Ministry was even forced to turn to Ukraine and East European states as a stop gap measure. As Indo-Soviet ties unraveled at a dizzying speed, India faced multiple crises in the security and economic spheres, with not only its strategic framework in shambles, but also in the financial sector, where the country was left with just enough foreign exchange to cover a fortnight’s worth of imports.

Russia could offer no help for the latter emergency even if it wished to do so, revealing its stark limitations and lopsided development. Indeed, the rupee-ruble arrangement that had earlier been viewed as innovative and uniquely helpful became a burden to both countries and only complicated India’s financial situation. Besides, in India’s view, Russia was unceremoniously dumping its erstwhile ‘special’ partner with unseemly haste in the new Russia’s rush into the western fold.
Emerging Trends in Indo-Russian Relations

Indo-Russian relations have begun to unfold new trends which stand as a complete contrast to the situation soon after the demise of the Soviet Union and end of the bipolar world. The ruling elites in both the countries have begun to look at these relations with an open mind and without any ideological overtones. This is reflected in the recent tendencies in the relation between the two countries, both in geo-economic and geo-strategic terms. These relations have both continuity and change, though it will be incorrect to equate Indo-Russian relations with Indo-Soviet relations. The driving force behind indo-Russian relations in the beginning of the 21st century is commonality of geopolitical and geo-economic interests of both the countries in the new historical conditions. Notwithstanding that both the countries are witnessing changes in their internal economic and political structures. With India there came to be greater depth in the fast-emerging relationship. Russia and India began to redevelop a multifaceted political, economic, security and defense relationship.31

Indo-Russian Cooperation in the Field of Defense

India’s connections with Moscow always had a strong military side. Under the new regime, Russia was keen to continue with defense contracts. The receipts from defense contracts are in hard currency. Thus, despite US pressure on the Russians to stop military co-operation with India (which was a part of Clinton’s talks with Yeltsin in September 1998), the Russians would like to strengthen defense exports.

The reason for Russian interest is clear. Russian Military Industrial Complexes were in great need for funds. Despite the initial problems faced by the breakup of the Soviet Republics and dispersion of some defense industry, Russia revived the possibility of re-negotiating defense contracts and the
contracts on rocket and nuclear power technology. The US tried to impose sanctions on the Russian firm Glavkosmos, when they tried to sell cryogenic rocket to India. But here too, US advice was rejected.

Indian military and defense orders now sustain many defense industries in Russia, especially in St. Petersburg and Irkutsk which would otherwise have faced closure at the time of transition in the Russian economy. India is the only country with which Russia has a long-term programme of military-technical co-operation, which was signed in 1994, till the year 2000. This was renewed for another 10 years, during the Primakov visit and a Defense Agreement until 2010 with deals on aircraft carrier, planes and modernization.  

The Indo-Russian agreement on the sale of highly advanced air defense systems clinched by an Indian defense delegation to Moscow in September 1998 was viewed by the Indian government as a feather in the cap for Indian security especially in the context of economic and military sanctions imposed by the USA. The Indo-Russian defense deals contribute to the new arms race that has been set off in the subcontinent after the Indian nuclear tests and the Pakistani response in May. Given the possibility of nuclear tipped Ghauri missiles and the Chinese M-11 missiles acquired by Pakistan. It is with this in mind that India sent a high level team to Moscow with a long shopping list. Six S-300V Anti- Tactical Ballistic Missiles costing billions of dollars are being purchased. Bilateral military programmes include that both countries help each others R&D efforts. India has a programme for 1 billion dollar with the Russian for the creation of new fighter planes the SU-30K1 fighters India also gets much naval hardware from the Russians and has recently acquired the 636-class submarines Defense is thus the major component of Indo-Russian relations. It underlies the economic and strategic relations between the two. In fact it is the most privileged part of the relation.
Reviving the old defense cooperation with India, the declaration highlights defense and military technical cooperation, service to service cooperation, Joint Research and Development (R&D) and training. In 1994, India and Russia reached an agreement on long-term bilateral military-technical cooperation till the year 2000. This was extended by a decade in October 1997. On the government side the defense relationship will happen at the political level with the setting up of an Indo-Russian Inter Governmental Commission on Military-Technical Cooperation (IGCMTC). The Indian Defense Minister Mr. George Fernandez and the Russian Deputy Prime Minister Mr. Ilya Klebanov will jointly head this. The IGCMTC will have two working groups and will meet annually. One group will be headed by the Defense Secretary of India and will deal with military-technical cooperation, the second one will be headed by the Secretary, Defense Production and will be involved in the production area of ship building, aviation and land systems. Acquisition of military hardware from Russia will give more teeth to the Indian armed forces in terms of its reach and capability.

A new, cooperative sphere in the Indo-Russian relationship has been addressed in agreements. Inter-Governmental agreements were signed during President Putin's visit for the acquisition of the aircraft carrier Admiral Gorshkov, MIG-29 K fighters on board the Gorshkov, Kamov-31 and Kamov-28 early warning helicopters, T60 S tanks and license production of 140 SU-30 MKI in India. Nearly $3 billion defense contracts have been finalized. India would acquire complete technology transfer from Russia for indigenous production. Russia has also agreed to lease four Tu-22 M maritime reconnaissance, medium bomber aircraft to India. Final contracts however, are yet to be signed.
A total of eleven agreements were reached to enhance bilateral ties. At the governmental level, an Indo-Russian Intergovernmental Commission on Trade, Economic, Scientific, Technological and Cultural cooperation has been agreed upon through eleven working groups. In the oil and gas sector, India’s Gas Authority of India Ltd. and Russia’s Gazprom have signed a contract in the field of oil exploration.

At present the Indian Navy has acquired two submarines and three frigates from Russia. The first of the two type 877 EKM Kilo class submarines Sindhurakshak’, was commissioned into the Indian Navy on December 24th 1997. The submarine was built by the Admiralteiskie Verifier (Admiralty Shipyards) of St. Petersburg, with Russian Baltic fleet instructors training the Indian crew. The ‘Sindhushastra’ is armed with Novator Alfa Klub anti-ship missiles with a range of 300 km, which could also be optimized for land attack roles. The Indian Navy’s submarine fleet includes ten ex-Russian Type 877-EKM Kilo class submarines four of the ten Kilo class submarines will be retrofitted with Klub missiles at a later date. The new submarine will cost around US $300 million each.35

In addition, the Navy is also acquiring three Krivak-class frigates (Project 1135.6) from Russia, which will be used for Anti-Submarine Warfare (ASW) operations. They will have a speed of 30-32 knots and a range of 4000 nm range at 14 knots. These vessels are fitted with SSM-Novator Alfa Klub missiles with a range of 300 kms. Besides these, the New Delhi class missile destroyer is exclusively fitted with Russian weaponry and sensors. These include SSM Zvezda missiles with a range of 130 kms and Gadfly with a range of 25 kms and the associated weapon designation system. A matter of considerable interest is the 44,500 tone Kiev-class aircraft carrier ‘Gorshkov’, which will cost around $ 750 million and will take three to four years to
complete. The carrier will be modified to provide a 12-14 Ski-jump for a short-take-off-but-arrested-recovery (STOBAR) capability for its air wing. The refit would entail rewiring the carrier, upgrading its propulsion power and air conditioning systems. Around 1,700 personnel will be there to operate this carrier in tropical waters. There are plans to acquire the naval variant MIG-29 K to be operated from aircraft carrier Gorshkov as and when it becomes part of the Indian Naval Fleet. About 40-45 MIG-29 Ks would be purchased. These will be armed with air-to-air, air-to-surface and television guided missiles as well as in-flight refuellers to increase the fighters' striking range to around 600nm (1,111 km). These submarines, frigates and aircraft carrier will add to the Indian Navy's deceasing number of principal combatants. The Navy's maritime surveillance aircraft Tu-142M and reconnaissance aircraft 11-38 also require up gradation and engine overhaul, with Russian assistance.

The modernization of MIG-21 Bis is in the advanced stage, flight trial testing is on and bulk up gradation would be done by Hindustan Aeronautics Limited (HAL) through the subsequent transfer of technology. The modernization of MIG-27s has also been decided. On the Su-30 MKI mission computer and its navigation, the Indian Defense Research and Development Organization (DRDO) are collaborating with its Russian counterpart. SU-30 MKI will have equipment from five countries like France, Israel, South Africa, And United Kingdom and of course India, integrated and proven by the Russians. Thirty new systems will be fitted into the Su-30 MKI. The two sides also decided to encourage collaboration between the defense scientists, especially in the field of avionics.

The Air Force requires tanker aircraft to enhance the range and capabilities of deep-penetration fighter aircraft like the, Su-30MKI Mirage-2000 and MIG-29. This mid air-to-air refueling will enhance the lethal power
of the aircraft by keeping them much longer in the air. The IAF has received four of forty Mil MI-17-IV transport helicopters ordered for $170 million earlier this year. By late 2001 the remaining helicopters will be delivered to India. It is expected that all forty helicopters will have 12 Vikhr-(M AT-16) medium range air-to-surface missiles. This laser guided weapon has a maximum range of around 10 km.

India is buying 310 T-90S MBTs from Russia. The T-90S tank has a blend of layered armour and explosive reactive armour (ERA). The T-90S has a new Shtora-I electronic system that deflects incoming missiles. Its missile power has a range of one kilometre over that of the T-72S and T-80MBT. According to the reports the T-90s laser guided missile system is capable of hitting enemy armour and helicopters at a range of up to 5 km. Indian and Russian negotiators are yet to resolve their differences over the price of T-90S MB1. The total value of the deal is likely to be $800 million with the outright purchase of 124 tanks in fully assembled state and 186 in semi-knocked down and completely knocked down conditions. Uralvagonzavod tank factory will manufacture T-90S tank for India. The contract also includes a license for production of more T-90 S tanks a the Avadi Heavy Vehicles Factory, which has been manufacturing T-72 tanks, with Russia supplying engines, fire control systems and some other components. Up gradation and modernization of 1,500 T-72 tanks are on the cards. The Indian Army is also looking for self-propelled guns, which can fire 155mm rounds, and Tunguska anti-aircraft systems.

The IGCMTC would look into the purchase of BM 9A52 SMERCH (Tornado) multiple rocket launchers, which can haul twelve 7.5 meter missiles in a single salvo to wipe out enemy personnel and hardware in an area of over 67 hectares up to 90 km away and six S-300 PMU 1 how-to-high altitude air-defense systems for protection against missiles and aircraft. The two sides are
currently negotiating financial terms. Also, India is looking into the in-depth modernization of Russian supplied surface-to-air Pechora missiles, which have already gone through trial tests in India.

According to the report of the Congressional Research Service, Russia is eyeing countries in Asia, the Middle East and Africa in order to protect its military industrial complex. Dr. Richard F. Grimmett author of the Congressional report says that Russia looks towards China and India as its lucrative customers in the years to come. Russian arms sale to the developing countries is to the tune of $4.1 billion.

Inherited from the Soviet era, Indo-Russian defense cooperation has stood the test of time. It would now be appropriate for both countries to work out an understanding on ‘Strategic Partnership’ covering whole range of issues-economic, political and military.

Russia understands the priority in broadening the bilateral defense cooperation to keep its own economy moving which is in some difficulty today. The survival of Russian defense industry is at stake. Capability is there which is to be harnessed. Russian equipment is sturdy and has the killer instinct but there is no timely technical backup system. India understands the need for the Russian defense industry to survive. It wants to deal with the manufacturer directly, not through any agencies. Joint venture and joint development between India and Russia is the need of the hour, which will progressively help in technology development in both the countries. Costing and pricing mechanism is still in the process of being developed. Inconsistency in the pricing system of the equipment is a matter of serious concern for India. Friendship prices are no longer available and hence, there are prolonged negotiations on the Gorshkov and T-90 deals with Russia. Russia has accorded
'most favored nation' status to India as far as prices go. For the first-time price lists have been finalized. Su-30 contract was not finalized because of the pricing problem. Through the pricing mechanism this time, the problem has been overcome for lifetime. India understands the need for license production keeping in mind the economic viability.36

**Indo-Russian Naval Cooperation**

It may be mentioned here that although the U.S. had begun reducing its military forces worldwide, it has not done so in Diego Garcia. The Indo-American naval relations are slowly taking roots but they are still uncertain. The U.S. government has proposed to have Indian naval escorts for U.S. navy vessels at the straits of Malacca. When approved by the Indian Cabinet, it will advance Indo-U.S. naval cooperation over the Malabar type exercise that was coordinated in 1995-1998. In the September 2002, India and the U.S. had their week-long naval exercise ‘Malabar-4’ which was tactical in nature and warfare-oriented, in the Indian Ocean. India may be keen to cooperate with the U.S. troops and provide escort to U.S. naval vessels in the Indian Ocean. But the crux of the problem is that despite this trend in Indo-U.S. cooperation, the American administration still considers Pakistan as its strategic partner. The Indian defense experts cannot minimize this aspect. But it needs to make sure what it is going to gain from such cooperation. As despite Indian’s gesture of cooperation in fighting terrorism, the United States relies more on Pakistan and it remained the main player in America’s retaliatory attack on Afghanistan.

That being the position in the foreseeable future Indo-Russian naval cooperation will be a key factor in strengthening India’s maritime strength. It is in this setting that the importance of India’s negotiation with Russia for acquiring Gorshkov aircraft carrier should be seen. The long awaited package
deal for the acquisition of the Gorshkov aircraft carrier, as well as nuclear capable long-range bombers and submarines may be finalized in the near future. Defense Minister George Fernandez had indicated that we have agreed that all efforts will be made to complete the three contracts by the end of March 2003”.37

It may be mentioned here that the 44,500 tonne Kiev-class Admiral Gorshkov aircraft carrier is tied to the supply of four Tu-22 M3 Backfire strategic bombers and two Akula-class nuclear powered submarines.

Indian Navy has already acquired the capability of operating nuclear submarines on the earlier Russian leased out INS Chakra Class nuclear submarines in the eighties. The submarines were decommissioned in 1991.

The Indian Navy has even subsequently been keeping alive its skill in operating a nuclear submarine. “Training of personnel is an on-going process”.

The Indian Navy also wants two Tu-22 (black Jack) nuclear bombers on lease while its Tu-124 long-range maritime reconnaissance aircraft are being overhauled.

Russia has also made a formal offer to India for jointly developing a fifth generation fighter, which is expected to roll out simultaneously with the U.S. Joint Strike Fighter (JSF).

Regarding the delivery schedule of three Krivak-111 Class stealth frigates under construction in St. Petersburg the Defense Ministry hopes that all the three warships Talwar, Trishul and Tabar has been handed over to the Indian Navy.38
These facts show that within the framework of naval cooperation with all the countries, at the present the Indo-Russian naval cooperation continues to be a key factor.

**Indo-Russian Nuclear Cooperation**

Vladimir Putin’s visit to New Delhi led to an agreement on Indo-Russian cooperation in the peaceful uses of atomic energy. The earlier agreement with the Soviet Union for the supply of giant atomic power plants with a capacity of 1000 Mw. at Koodankulam, Tamilnadu had been signed in May 1988. It was the then Prime Minister Rajiv Gandhi and General Secretary Milkhaıl Gorbachev who had initiated the agreement.

The Russian Delegation with Mr. Reshenikov included some of the world’s best nuclear scientists and technologists. Their arrival ahead of President Putin was significant. Nuclear cooperation in the peaceful use of atomic energy was firmed up. After the visit to RAPS Reshenikov mad it clear that four more units of the VVER type reactors of 1000 Mw capacity would be set up at Koodankulam. He remarked that from the economic point of view it is viable to have four units at the same site if not six.

Mr. Reshenikov’s contemporary Dr. V.K. Chaturvedi Chairman and Managing Director of the Nuclear Power Corporation of India Ltd. (NPC) are respectively Co-Chairman of the co-ordination committee at Koodankulam. At their meeting in New Delhi on Sept. 28 it was decided to prepare a Detailed Project Report (DPR) on Koodankulam.

Under the first agreement Kodankulam was to be a turnkey project with the NPC providing the site. The then USSR was to provide the design of the VVER 1000 type Pressurized Water Reactor (PWR). It would also bring the
fuel, equipments, components and spares and build the reactors. Under the supplementary agreement that is a technical one Russia will give the NPC the design and bring most of the equipment whilst the NPC will build the two reactors. Russian will also supply the enriched uranium fuel for the life of the reactors. Unlike the RAPS, light water will be the moderator.\textsuperscript{39}

India and Russia have thus entered a new phase of nuclear cooperation. The construction of the Koodankulam reactors with the help of the Russian Federation would improve electricity generation and availability. The Russian delegation that accompanied Reshenikov included the director general ZAO Atomstroy export, Dr. V.V. Kozirov, Deputy Director General Dr. G. O. Kumani, Director VVER Center, and RSC Kurchatov institute, Dr. G. I. Lunin, Director Atomenergo project and Dr. A. B. Malyshev Atomstroy export handles the export of Russian reactors, components and fuel. Dr. Lunin, a nuclear scientist has worked on the core Physics of every type of reactor, Dr. Malyshev was in charge of the over all 1000 Mv reactors.

Dr. Malyshev has opined that the VVER 1000 type reactors planned for Koodankulam would have additional safety features compared to the prototype made in Bulgaria. Russian nuclear power stations rank third in terms of safety after Japan and Germany. Russia was building two VVER type reactors in Iran and China also.\textsuperscript{40}

A major feature of President Putin’s visit to India was his trip to the Bhabha Atomic Research Center (BARC) at Trombay, Mumbai on Oct. 5. This was indeed a significant development. It signals the support of a major head of state towards the strengthening of Indo-Russian relations. However, there were some points of divergence between New Delhi and Moscow of today on the politics of nuclear non-proliferation.
Russian President Putin urged India to sign the Comprehensive Test Ban Treaty (CTBT) during his visit to India. India has in any case stopped further nuclear testing since May 1998. Putin made his plea on the CTBT in a meeting with scientists of the Bhabha Atomic Research Center in Trombay near Mumbai. He did however; appreciate the Indian stand that its natural interests and the needs of its people should also be considered, Yet Putin felt it would be better for India if it were to sign the CTBT.41

There is in the present era division between Moscow and New Delhi on Nuclear non-proliferation and arms control issues. Russia and China are two major powers who are both members of the UN Security Council as also a member of the NPT regime. Their strategic cooperation on military and nuclear issues is necessitated by the need to reduce tensions and concentrate on economic development, Russia would also favor the emergence of a Russia-India-China triangulation of cooperation. The idea has as yet to take shape because neither India nor China would like to be freed from the bilateral arrangement that presently exists with the lone superpower the United States.

Also China favors India’s adversary Pakistan as a strategic partner and New Delhi has often enough cited China as a “threat” At another level, it must be pointed that the United States as a unipolar power has sought to object before the nuclear suppliers group to any further Indo-Russian nuclear cooperation in the peaceful uses of atomic energy.42

A major change took place when President Putin’s visit to BARC and exemplifies Russia’s evolving position on military-technical cooperation with India. He was the first Russian leader to tour BARC, joining only two other foreign leaders before, Chinese Prime Minister Zhou-en-Lai and British Prime Margaret Tharatcher.Putin’s high-powered 70-member delegation, which
included Deputy Prime Minister, Ilya Klebanov, Foreign Ministe Igor Ivanov and Defense Minister Igo Sergeyev, attests to the importance the Russians give India in this new phase of their defense industrial strategy.

India’s former Atomic Energy Chairman Chidambaram has sought to portray Indo-Russian cooperation in the nuclear realms far-reaching and ‘pan of an Indian plan to give significant impetus to the nuclear program. India’s target, as outlined, is to generate 20,000 MW of nuclear-generated electricity by 2020. Chidambaram stated that although India had a self reliant nuclear power program based on indigenized pressurized heavy ‘ water reactors (PHWR), the objective was to develop fast breeder reactors (FBRs) and thorium utilization in a closed nuclear fuel cycle, as well as modern light water reactors (LWR).

The current production is limited, and the Indian nuclear program has come under criticism in terms of cost, efficiency and safety. So far however, the nuclear power establishment has warded off such criticism, in part pointing out the need for reducing the country’s energy dependency, a view shared by successive Indian leaderships. The exigencies of working under external sanctions, imposed on India in light of its nuclear activity, has also allowed the nuclear energy program to enjoy a more exalted position than it might otherwise have had.

It is precisely in the context of sanctions and other international regimes that Russia’s role in the nuclear field becomes critical for India. India has been looking toward other suppliers such as France, but without immediate results. As a leading Indian strategic analyst commented, ‘The reality is that Russia today is the only great power which is ready to cooperate with India in the atomic energy sector’.43
Nuclear cooperation is not without costs for Russia, and Russian policy has not been entirely predictable vis-à-vis India. So far, Russia has been able to circumvent some of the most restrictive clauses of key relevant regimes of which Russia is a member because of loopholes and creative interpretation. At the moment, India does not appear to have much choice but to bank on Russia’s stated and implied intentions. A critical testimony to the desire of the Russians to deepen future relations is the Memorandum of Understanding on peaceful nuclear energy uses signed along with the Declaration on Strategic Partnership during Putin’s visit to India. While the latter has been made public, the former remains unpublished.

Russia has been careful about not appearing to deviate from the most important nuclear export control mechanism, the Nuclear Suppliers Group and its guidelines. Russia itself has enacted national export control legislation, most notably the Federal Law ‘On Export Controls’ adopted in June 1999 by the Russian Parliament and signed by the President. There is also an Export Control Commission which has an impressive high level roster of representatives: the Federal Security Service, Ministry of Foreign Affairs, Ministry of Economy, Ministry of Defense, Ministry of Industry and Trade, the States Customs Committee, State Committee on Nuclear and Radiation Safety of the Russian President and the Russian Academy of Sciences. The Commission determines whether contracts and agreements and some licenses comply with Russia’s international commitments.

According to some leading Russian critics, ‘whole ministries are closely associated with certain companies in pursuing their short-term economic interests and ignoring long term Russian national interests’. A campaign against corruption was launched in spring 1999 by then Prime Minister Primakov which coincided with his other campaign to force Russian oligarchs
to follow the law. This may have led to his downfall when he was removed in May 1999.

The most export-oriented ministries are the Ministry of Atomic Energy, the Russian Aviation and Space Agency and the Ministry of Economics which stands in some contrast to the Russian Foreign Ministry. The greatest Russian lobbyist for nuclear collaboration with India in recent times was the former Minister of Atomic Energy, Yevgeny Adamov, who ignited a storm of controversy when he indicated in an interview with the newspaper The Hindu in December 2000 that Russia might consider withdrawing from existing export control regimes.

Adamov was making an oblique reference to the Nuclear Suppliers Group (NSG) which was formed in 1975. Adamov cited China as an example since it is not a member of the NSG, but is part of the Zangger Committee which does not require full-scope safeguards. The NSG’s Guidelines for Nuclear Transfers did not demand full-scope safeguards for non-nuclear states until 1992 following the discovery of Iraq’s clandestine nuclear weapon program. President Boris Yeltsin signed Decree No. 312, which paralleled the NSG guidelines — though it exempted Russia’s 1988 agreement with India to build two nuclear reactors at Kudankulam that provided for facility safeguards, thus meeting the requirements governing deals prior to 1992.

In 1996, Yeltsin reaffirmed Russia’s commitment to the NSG Guidelines. However, Putin took a step soon after he took office distancing the country’s policy from NSG by amending Russia’s export control legislation; in May 2000, Decree No. 312 was modified to allow nuclear supplies to non-nuclear weapon states whose activities were not under full-scope safeguards in exceptional circumstances’.
The position of Russia’s Minatom (Ministry of Atomic Energy) was that the new Decree significantly expanded Russia’s nuclear export capability and that it was linked to Russia’s intent to assist the Indian program. Indeed, Putin said as much when he noted in New Delhi that two more reactors in addition to Koodankulam were distinct possibilities. This was consistent with Adamov’s promise in The Hindu interview that ‘We will do our best to participate in India’s ambitious programme to generate 20,000 MW of nuclear power by 2020’.

In another positive signal, Russia came to India’s rescue when China stopped badly needed supplies of enriched uranium fuel to Tarapur after India’s 1998 nuclear tests. India turned to Russia which began delivering supplies in February 2001, despite criticism from the west. For example, The Economist took the Russian leadership to task, calling Russia’s nuclear dalliance with India’, a result of ‘the fissile nature of Russian politics’. The Russians were accused of falling back on old Soviet connections with India, allegedly often with the connivance of officials who are supposed to police any irregularities.

Adamov, who was close to Putin, seems to have exerted strong influence on Indo-Russian nuclear policy. The Atomic Energy head apparently not only had Putin’s ear but was also close to certain influential business communities. According to some analysts, Putin’s decision to sign the Decree in May 2000 allowing nuclear supplies to non-nuclear countries which did not have full-scope safeguards may have been a political move to support Adamov as the nuclear energy chief tried to increase nuclear sales abroad.

Crises in the over ridden by the drive for sales. Indeed, Adamov was perceived to have been replaced in March 2001 partly for his outspokenness (His interview to The Hindu), and enthusiasm for deals with Iran. His ouster
gave rise to speculation that the Ministry of Atomic Energy may abandon its attempts to substitute its corporate policy for state policy in nuclear non-proliferation’ thus providing an opportunity for the Ministry of Foreign Affairs.

On the contrary, Adamov’s successor, Alexander Rumyantsev, has come out firmly in favor of Russian nuclear assistance to India (and Iran for that matter). Rumyantsev, a former head of one of Russia’s top nuclear labs, left no room for confusion, and in a news conference, stated that cooperation with Iran on the Bushehr nuclear power plant was strictly civilian and in keeping with international commitments. Indeed, he indicated that the Russians were considering a second reactor at Blusher and vowed to catch up if work was lagging behind schedule. Regarding India Rumyantsev took the long view and noted that ‘India is our strategic partner. We want to ensure that there are no reproaches (from the international community) in this regard’. He stated that Russia intends to build a nuclear power station in India despite international concern.

Rumsyantsev’s statements so far should put to rest any sentiment that the replacement of Adamov would have negative repercussions for Indo-Russian relations in the nuclear sector as initial analysis might have suggested. Indo-Russian nuclear cooperation would seem to have support at the highest levels of Russian leadership, at least for now. But it is no secret that India would prefer to get nuclear assistance from France or even the US, and to that extent, India might be betting that the bait of its deals with Russia might eventually draw in the others. Moreover, India is not likely to forget Russia’s backtracking on the cryogenic engine technology contract in 1993 suggesting that it is not the most reliable partner. Thus while the stage is being set for a higher level of nuclear cooperation, there is no guarantee that other interests
and preferences will not take precedence in the future for either India or Russia.47

Scientific and Technical Cooperation

Let us now turn to some aspect of Indo-Russian cooperation in science and technology. New avenues and areas of economic scientific and technical cooperation between India and Russia are being explored. A renewed Integrated Long-Term Programme (ILTP) for Indo-Russian cooperation in science and technology for instance is being actively considered.

The ILTP programme, signed by the President of erstwhile Soviet Union, Mikhail Gorbachev, and the late Prime Minister Rajiv Gandhi in Moscow in 1987, lasted till the year 2000. It has emerged as the world’s largest technology. This programme is a reflection of the close Russia in science and technology that has developed between India Russia over the last 13 years. The programme had facilitated exchange visits of over 2,500 scientists and generated a close to 300 developments projects in India and Russia.

Moreover, India and Russia have entered into an agreement to expand their cooperation in nuclear physics. A MoU (Memorandum of Understanding) has been signed between the Department of science and technology of the Government of India and Russia’s leading nuclear research institute, the Kurchatov Centre. The three year agreement, signed by the officials of India and Russia, will be automatically renewed unless one of the sides decided otherwise.

Nuclear physics has thus become one of the thrust areas of Indo-Russian cooperation under the 13 years ILTP, which would be renewed for another 10
years. The two countries are planning setting up a satellite link between the
PARAM 10000 in Moscow and the supercomputer at C-DAC in Pune (Centre
Development of Advanced Computing). The C-DAC and the Institute for
Computer Aided Design (ICAD) have already prepared a joint work document
identifying applications and areas of requirements will be met in Russia and
India, besides third world countries.

Multi-faceted scientific cooperation has been thriving between India and
Russia, the most significant being cooperation in nuclear realm. As the
culmination of this process has come the Indo-Russian agreement on
collaboration reactors in India, each of 1000 Mwe generating capacity. The
reactor are described as the WER type, incorporating the most advanced reactor
technology in Russian and rated among the best in the world. The project is
located at Kudankulam in Tamil Nadu.

The Kudankulam project is being implemented under the inter-
Government agreement signed between the government of India and the
erstwhile USSR in November 1988, which was subsequently amended through
a “supplement” in June 1998. In the initial phase, a detailed project report for
the project was prepared with the help of Premier Russian design Organization
an institutes, a contract for which was signed between NPCIL and the Russian

The project has now entered the second phase of construction that civil
Works with the ground breaking for the project work seared out On October 7,

The Kudankulam project has several distinguishing features-its design
and technology, the impact Indian atomic reactor design technology, Indo-
Russian scientific cooperation terms for implementing the project and not the least, the financial arrangements to cover costs of an atomic project of such a massive size. Notable, too, has been another development related to the project strong pressures from nuclear weapon powers, particularly the United States, on Russia against implementation of the Kudankulam project, invoking terms of the London Club, of which Russia is a member.

To take the financial aspect first, one should note that the soft repayment terms of the Russian loan for the project set new parameters that facilitate implementation of this massive nuclear undertaking without any harsh burden on the Indian economy. The final costing and the financing terms of the project, completed in recent negotiations between the Indian and Russian sides, stipulate that the Russian side will carry out the entire design of the project and supply all the equipment and machinery for the plant. Eighty-five per cent of the cost of the supplies and services from the Russian organizations shall be covered under the State Credit extended by the Russian Government to the Indian Government for the project.

The total amount of credit for the project from the Russian side will work out to about 50 per cent of the total project cost. The credit utilized for the project is to be repaid in 14 equal installments, beginning with the commercial operations of the plant. This will enable loan repayments largely from earnings of power generations.

The scientific and technological aspects of the Russian reactor design have a special bearing for India, for induction of the light water reactor design, based on low enriched uranium as fuel will mean a departure from the existing pattern of atom & power plants in India. These have pressurized heavy water
reactors that use natural uranium as fuel and heavy water as moderator and coolant.

The view of the scientific establishment is that far from being a technological slow down, induction of the Russian reactor design will mean enrichment of India's nuclear reactor technology. The Kudankulam project will be based on the latest WER, reactor design of pressurized water type (PWR), which is rated as the leading type of nuclear power reactors worldwide.

This perfunctory survey on the course of Indo-Russian cooperation in economy, science and technology clearly reflects that after 15 years of the disintegration of the Soviet Union, Indo-Russian cooperation has begun to take a new turn.49

**Indo-Russian Energy Cooperation**

India and Russia showed readiness to work together in the peaceful uses of atomic energy. A memorandum of understanding (MOU) was signed on the peaceful uses of atomic energy. Russia reiterated that it would abide by international legal obligations in cooperating with India in the nuclear field. However, amongst the five permanent members of the United Nation's Security Council (p-5), Russia has openly committed itself to cooperate with India in the field of nuclear energy. India's growing demand for nuclear energy is to be met by Russian cooperation. Two large 1000 megawatts nuclear power reactors at Koodankulam in Tamil Nadu are being constructed by Russia help each costing $2.6 billion. Russia is keen to construct more nuclear power plants in India. The Koodankulam nuclear power project predates the nuclear Suppliers Group (NSG) agreement. Since 1992, NSG restrictions effectively bar the member states from selling any nuclear related items as well as transfer of civilian nuclear technology to countries that do not accept full scope
safeguards on all their nuclear facilities. India is one of the countries which are not accepting full scope IAEA safeguards. President Vladimir Putin received a rare honour to visit the BARC complex in Mumbai.50

India has recently stepped up efforts to access energy resources in Russia, the world's second largest oil producer and leading gas producer. India's ONGC Videsh Ltd. (OVL) holds a 20 percent stake in Sakhalin-1 of $1.7 billion, which is set to begin production this year eventually generating 2.3 billion barrels of oil and 17.3 trillion cubic feet of gas. India is also looking to invest in the Sakhalin-3 project, which is estimated to hold 4.6 billion barrels of oil and 770 billion cubic meters of gas as well as investing in the joint Russian-Kazakh Kurmangazy oilfield in the Caspian Sea. During Russian President Vladimir Putin's visit to India in December, the two countries also signed a Memorandum of Understanding for joint exploration and distribution of natural gas from the Caspian basin as well as for building underground gas storage facilities in India.

The controversy over the sale of the Yugansk, which produces 60 percent of Yukos' oil output and pumps 11 percent of Russia's oil, has also highlighted India's growing interest in Russian energy assets. While the mysterious buyer, Baikal Finance Group, ended up selling its stake in Yugansk to Rosneft in December, which has been acquired by Russian state-owned Gazprom, this does not preclude the possibility of Yukos' assets being acquired by India's ONGC. ONGC has been considering a $2 billion investment for a 10-15 percent stake in Yugansk.

Indo-Russian energy cooperation is being further cemented by political and military cooperation. Just as India increasingly relies on Russian energy resources, so it also constitutes one of the biggest buyers of Russian military
hardware. During the then Indian Petroleum Minister Mani Shankar Aiyar's visit to Moscow in October 2004, he voiced similar sentiments stating that "in the first half-century of Indian independence, Russia has guaranteed our territorial integrity, and in the second half it may be able to guarantee our energy security."\textsuperscript{51}

In fact, growing Indo-Russian energy cooperation resurrects former Russian Prime Minister Yevgeny Primakov's idea for a strategic triangle among Russia, India and China. These states are bound together by their shared interests in the fight against terrorism, the push for a multipolar world, and respect for the principles of state sovereignty and non-intervention with regards to their respective separatist movements in Chechnya, Kashmir and Taiwan. Now the energy sector can be added to this list of shared interests. India and China are already collaborating in the development of the Yahavaran oil field in Iran and India's leading state-owned gas company, Gas Authority of India Limited, has acquired a 10 percent stake in China Gas Holdings. With India and China vying for assets in Yukos, Sino-Indian-Russian collaboration in the energy sphere could be further cemented. On December 3 during Russian President Vladimir Putin's meeting with Indian Prime Minister Manmohan Singh in New Delhi, a joint statement was released which included a proposal for greater cooperation with China, stating that "the sides express their conviction in favor of a progressive increase in trilateral Cooperation, which also leads to social and economic development amongst the three countries."\textsuperscript{52}
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