

# Disarmament and Nuclear Weapons



**Paulos Mar Gregorios**

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and  
Nuclear Weapons***

**PAULOS MAR GREGORIOS**

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*Phone* : 2966323

*Fax* : 91-11-2965490

*E-mail* : ispck@nde.vsnl.net.in

*website* : [www.Acpl.com/ISPCK](http://www.Acpl.com/ISPCK)

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## CHAPTER 1

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### DISARMAMENT

#### *What are the Major Issues?\**

##### I. Why should we disarm?

There are three major arguments for disarmament:

- (a) Under any circumstances 400 billion dollars a year are spent on useless armaments is a colossal waste of human effort and of the limited resources of our planet.

What does 400 billion dollars a year mean?

In our money it is Rs. 3,200,000,000,000 (Rupees 3 lakh 20,000 crore). In 1974-75, the total income of all Indian people living in India (588 million) was Rs. 200,750,000,000 (Rupees twenty thousand seventy-five crore)

In other words, what we, as humanity, waste in a year is more than 15 times what all Indians together earn in a year.

To put it in another way, what we waste on armaments is three times what the world population would produce if their production were at Indian rates!

That is indeed a colossal waste!

- (b) If we do not disarm, we may eventually destroy our whole planet either by intentional action or by accident.

We have enough weapons in our arsenals to destroy our world half a dozen times!

- (c) Without disarmament, world poverty, hunger and injustice cannot be removed. First, because the capital resources that we use on armaments can provide employment for the whole

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\* Article written in 1976.

world population. Second, because it is military power that sustains the present unjust world structures, which work to the interest of the already rich nations and corporations. Armaments are used less for national security and more for defending the vested interests of the already rich. In a disarmed world the rich would be more vulnerable, and the poor have a better chance of getting justice.

## **II. Is disarmament feasible?**

People think disarmament is not possible or practical. There is a general feeling of paralysis of will among the public in this matter. Every year we see the armaments race picking up greater and greater speed, and the paltry efforts of religions or secular peace movements to stop the process seem to be pitifully ineffective.

In the UN Special Assembly there is new hope for disarmament. This is because of the following reasons.

- (a) Formerly negotiations for disarmament were left to the five major nuclear powers alone—and of these France and China did not participate in the Geneva negotiations. Now with the Special Assembly looking into the matter all the 150 nations of the world are participating in the discussions.
- (b) France has now agreed to come to Geneva for conversations. Even though France's objective of going to Geneva is not known, the fact itself is encouraging. France may be banking on the hope that when the Co-chairmanship of the Geneva Commission on Disarmament moves away from the US and the USSR, it will get one of these chairs. China would also have come in if it could be sure that it would get the chair now occupied by the USSR. With USSR-China relations being as bad as they are, USSR will not agree to this.
- (c) The matter is a high priority agenda for the UN and is not just specialized concern. Devoting a whole Special Session of six to seven weeks on disarmament is a recognition of the central importance of the issue.

## **III. Where are the major bottle-necks?**

- (a) The major problem is that China is convinced that her own

rise to supremacy in the world is conditional on a Third World War destroying the might of both the U.S.A. and the U.S.S.R. Therefore, it does not want a de'tente between the west and the USSR. China likes to regard both the USSR and the US as imperialists, the first a Social Imperialist and the other a Capitalist Imperialist. China's strategy is to befriend the West, in order to strike at Russia first and then at the West. Outsiders find it very difficult to understand this strategy. But if one understands that it is hegemony that China also aspires for, and that the difference between imperialism and hegemonism is rather small, then one can both understand the strategy and regret that a great nation should spoil itself and the world with such ambitions. In any case China is on the same side as Brzezinski and Company who want to escalate the arms race by stroving up war hysteria.

- (b) Détente in Europe is not doing as well as was expected. The Helsinki Closing Act on European Security still remains basically on paper only. Interested parties in the capitalist West are determined that détente should not be real, for the reduced armaments would adversely affect the economy and may even cause collapse of the capitalist system. The western system has neither the will nor the machinery to make an easy transition from a war economy to a peace economy. Armaments trade is the fastest expanding market, and any real disarmament measures would first hit the armaments industry and many subsidiary industries. Moreover, the military production lobby is so powerful that any legislation to reduce defence budgets will be stoutly resisted.
- (c) The Trilateral Group (US, West Germany and Japan) has decided to create a war hysteria, saying that the communist nations are now more strongly armed than the western nations. It, therefore stresses that the budget of NATO should be increased in order to provide assured supremacy and security for the West. Chancellor Schmidt of West Germany and President Carter himself may not be quite convinced about this argument, but the pressure from the military production lobby through the media and other means is so great that they dare not state their conviction that there is no danger of the communist countries starting a war now. Brzezinski is the

acknowledged leader of this group, and the group will do everything possible to sabotage real disarmament negotiations. It is significant that the NATO powers decided to have their meeting in Washington at the same time as the Special Session of the UN and that Carter made his speech about military threats in the NATO meeting instead of going to New York to give some leadership for the disarmament negotiations. It seems clear that Carter was yielding to pressure.

- (d) The Capitalist system survives today because of military backing. Once there is disarmament, the system will crumble very quickly. Injustice cannot be sustained without military or police force. Those who benefit from injustice sense this reality and are very wary of disarmament. They think disarmament is a strategy to break their power. They may be right.
- (e) The media has not yet shown great interest in disarmament. When the public really sees the problem, and has some hope of solving it, they will not fail to demand disarmament.



## CHAPTER 2

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### INCURABLE FOLLY?

#### *Disarmament as an Ecumenical Task\**

Why is it that the world continues to be as heavily armed as it is? Is there not something ridiculous in the fact that the nuclear arsenal of one nation alone (U.S.A.) is equivalent to 595,000 Hiroshima-type atom bombs?

The world spends over \$250 billion on military expenses—much more than the total income of the power nations of the world. Is Robert Mc Namara, the World Bank President, right in calling this “the mark of an ultimate, and I sometimes fear, incurable folly.”<sup>1</sup> Whether incurable or not, it is folly indeed for the US to spend \$246 million everyday of the year on defence. It is more than the total annual budget of the UN World Food Programme. It is folly indeed for the US military establishment to spend in 16 hours more than the annual budget of the WHO or the FAO. In 29 hours the US Defence Department spends more than the UN Development Programme spends in one year! The average American family (of 4 members) pays about \$1900 for defence alone in what time span how many years/days? On the other hand a family of four pays \$140 for education and \$24 for economic assistance to poor nations.

Why is it that this folly cannot be cured? Because of the intimate linkage between the defence budget and civilian employment in the American economy. A survey of 560 congressional districts in the US has shown that 5/6th of these districts are economically dependent on military contacts. How can an American congressman vote for armaments’ reduction, when to do so would be to increase the unemployment problem in his district? At least 40 percent of the work force in the US is dependent upon the defence budget.

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\* Article written in 1977.

An analysis of 146 Defence Department contracts in the US reveals that the average per-tax profit of civilian companies supplying goods and services to the military is about 28.3 percent. This is twice the average for manufacturing normal goods. Who would want to cut military expenditure? Would it not remain as our incurable folly forever?

Here is the ecumenical task. The public is seldom aware of the complexity of the linkage between the military establishment and the capitalist industrial establishment. Neither are they aware that the US spending more than a \$100 billion on defence, amounts to asking others to keep themselves armed to the teeth. Eighty five percent of the total arms of the world are today owned by NATO and Warsaw Pact countries together. Unfortunately 85 percent of the blood shed in wars in the last few years has been from outside these countries. Incurable folly! The public should be incensed about such folly.

We are training a generation of military-minded young people in whom we instil the desire to annihilate the enemy without mercy. The operators of electronically-controlled equipment for human destruction, play with surface warships and submarine missile launchers, and with bombers and fighters of highly sophisticated technology, as if they are toys to amuse themselves with. A future war, as the generals are planning, may very well cause the death of anywhere from 200 million people up, to a destruction of more than half of the world. We are geared for much large-scale human destruction, and the men who operate these weapons of destruction hardly have any conscience at all!

Philip Noel-Baker recently wrote of a conversation between a friend of his and an army General:

Friend: "They tell me General, that the NATO staff are assuming that on the first day of the next war a 100 million people will be killed."

General: "A 100 million? 'Ridiculous'. Forty million at the most."<sup>2</sup>

Just imagine! Aren't we good that we kill only 40 million human beings on one day, and not 100 million as some fools say? O, incurable folly! In the First World War we killed 10 million, in

the second 53 million. And in the third, we casually calculate a list of some 100 million! Isn't there something shocking in this cool callousness of ours?

And now there is this new instrument of international relations—*diktat*. So far only one power seems to have used it in this shocking way. If the US does not like the foreign or domestic policy of a free nation, it simply moves its Seventh Fleet into the waters near the country and says to it in effect, "Our nuclear missiles are trained on you. By simply giving one coded word of command, we can destroy your nation. We advise you not to follow such and such a line of policy which we do not like. So your better behave as we tell you". This is *diktat*, and most nations do not have the power to withstand such an ultimatum.

The powerless are made helpless by this combination of nuclear power and military aggression. Would the conscience of mankind revolt against such bullying techniques. Is it right for any nation to have irresponsible power of this kind? How can we live in peace and security when any nation has that kind of power?

All good proposals for disarmament are rejected by the World Community. The proposal for the World Disarmament Conference made in 1971 was rejected because it came from the Soviet Union. In the industrially developing countries people have been brainwashed to be distrustful of Soviet proposals, but not in the same degree about American intentions. Now the World Disarmament Conference seems to be finally on the UN agenda.

In 1973 the Soviet Union proposed a 10 percent cut in military budgets. Again the UN Community turned it down. Why? Uninformed public, uninformed representatives of Government in the UN, or wilful manipulation of votes by powerful nations and lobbies of the military-industrial complex? What incurable folly? Here the Churches have to do something really dramatic to appeal to the conscience of humanity.

Our big job is to rouse public opinion all over the world. Mr. Carter, the new American President, should be taken at face value as a sincere advocate of disarmament. Mr. Brezhnev has always reiterated his uncompromising stand for disarmament. Is the military-industrial complex of the world so powerful as to resist the will of the heads of two of the world's strongest governments?

I suspect they are powerful enough to try to resist that will. And only an equally strong exercise of the people's will both in America and in the rest of the world can change the situation and challenge the domineering grip of the military-industrial complex over the lives of human beings.

The main thrust of arousing people's will should follow the following main lines:

### **1. The futility of overkill**

Both the US and the USSR passed the point of nuclear overkill in the armaments race long ago. Each side has many times the capacity to destroy the enemy. Now the competition is not to increase the tonnage or number of nuclear weapons, but to devise more sophisticated technologies of offense and defense. The Vladivostok agreement between the US and the USSR (1974) fixed a ceiling of 2400 delivery vehicles to each side, 1320 of which could be armed with multiple warheads (MIRVs). This ceiling is so high that it means nothing for disarmament. Neither nation has reached the ceiling, despite their great capacity for overkill.

Public all over the world should understand the ridiculous nature of such ceilings, and put pressure on all governments to set the ceiling far below the present nuclear capacity of the two big powers. Overkill is absolutely abused—the height of incurable folly—and pressure from the public alone will bring sanity to the situation.

### **2. The armaments industry**

World trade in armaments keeps going up. The sale of armaments to the poor countries is now an integral part of the world picture of neo-colonialism and exploitation. The \$400 billion that the world spends on armaments itself flattens the purse of the rich nations. In 1975, a US Corporation signed a \$77 million contract to train four Saudi Arabian battalions. Both Saudi Arabia and Iran, as well as the Arabian Gulf Emirates are spending such a large proportion of their new and increased oil revenues on armaments, and it is the rich nations that reap the major benefit from the expenditure. The Pentagon revealed in 1975 that private US companies and teams had contracts worth \$727 million in 34 countries around the world,

for training military personnel alone. The supply of arms for these countries would come to several times that figure.

Public ire should be aroused about this insane trade in weapons that is multiplying every year. Only a massive uprising of public anger all over the world can begin to put a check on this perilous development.

### **3. The military industrial complex**

The close relation between military budgets and the civilian economy of a country should be expressed and the public made aware of this peril. One strong argument used in the American Congress for developing the B-1 Bomber (each one costing millions of dollars) was that the project would directly employ 69,000 persons, and that another 122,700 jobs would be created in the feeder industries in the civilian sector. Public ire should thus be raised against the capitalist system which breeds the armament race and sustains it by an influential lobby in Congress thus submitting humanity to this incurable folly.

### **4. Worldwide military presence**

Why should some nations, especially the US, have the might to extend its military power beyond its non-legitimate frontiers? The US has some 20,000 nuclear warheads poised in various parts of the world outside its own boundaries. They can do this only because other nations allow them to do so. In 1972 the number of US military bases outside the US (not counting Vatican and Thailand) was 367. How can the world public tolerate such military imperialism? There has to be a massive protest, particularly in the countries where the US bases are located, but also, and perhaps much more so, among the people of the United States.

### **5. Overkill and underfed**

The relation between domination of the world market and the global military presence of imperialist powers should also be explained to the public. It is in the defence of a global imperialist system that militarism grows in the world. Poverty in the two-thirds world is directly related to the domination of the world market by imperialist powers. People all over the world should see that the problem of

poverty cannot be resolved without dismantling the huge network of military-industrial tentacles that are strangling the world today.

Of course, the Christian Church should also create the positive hope that human problems can be solved, if people set their will to it in an organised way. Pessimism and despair on the part of the oppressed make them allies of the oppressor. We have a big job in breaking the idea of fatalism that still paralyzes a large part of the world's public.

Disarmament is possible. Justice is possible. Humanity is possible. The enemy can be overcome. We must split the enemy and fight. The people should fight. They should fight with hope. Only in this way can evil be overcome and peace established.

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1. In a report to the Board of Governors of the International Bank for Reconstruction and Development, Sept. 21, 1970.
2. Philip Noel-Baker: *The Urgency of Disarmament in New Perspectives*, 1975, No. 2, p. 7.

## **CHAPTER 3**

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# **PROBLEMS OF PEACE AND DISARMAMENT\***

War is as old as human history. Peace has always been interim. We are now in a period of history, however, where war, militarism and the armament trade play a much larger than ever role in human economic, political and social life.

Take a simple case—the amount of money the world spends on armaments and defence. A very sober estimate today puts it at \$365 billion a year—a billion dollars a day. Translate that into rupees—it is 10 billion rupees a day, or if you prefer 10,000 million, or 1000 crore of rupees a day. How much do the 620 million people of India earn in a day? Less than 160 crore a day. That includes what the Tatas and Birlas and the Transnational Corporations in India earn in a day. And the world burns up more than six times what India produces—for defence. We as a human race are crazy.

President Carter told us that he was going to reduce defence expenditure, but he has been forced to increase it. What the US spends on defence is \$120 billion a year. Since the last war ended in 1945 the US has spent one trillion dollars on armaments and defence. A trillion is one followed by 12 zeroes. A 1000 billions or 10 million. You could have made ten million millionaires with that. Or you could have banished poverty from the face of the earth with that money—creating employment for all the unemployed of the world. But we are a crazy people. We must burn all that money, because we are crazy.

**Why disarmament gets no good press?**

Why can't the American people do something about disarmament? They stopped the Vietnam War. Can't they agitate to reduce military expenditure and the arms trade?

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\* Article written in 1978.

Apparently, one cannot even get something through Congress to reduce the defence budget. Why? Because the American economy is heavily dependent on the jobs created by military production and the arms race. Fifty-three percent of its entire budget goes into this defence business. Even General Motors, Ford or IBM cannot get along without defence contracts. In fact, making something (a tank, a gun, a uniform, a jeep) for the Defence Department is much better business than making something for civil consumption. The average profit is about double what one gets in the civil market; the market is assured by contract. So most of the US companies compete with each other to get military contracts.

And when the Congressman goes home and talks about disarmament or about reducing the defence budget, the local businessmen and the public tells him that he is acting against the interests of his constituency. A good 30 percent of the jobs in his constituency, if not more, have something to do with defence contracts. By reducing the defence budget, he will reduce the prosperity of his constituency, and throw several people out of their jobs. How, then, can any Congressman vote for a reduction of the defence budget? Besides, at the next election, not only the votes, but even the money for running the election campaign has to come from these companies with military contracts. So you will always get many affirmative votes for a bill to increase defence expenditure and to create new jobs. But to vote for decreasing defence expenditure is, for a politician, to commit political suicide.

But that is not the only reason why disarmament is difficult. That is the most important reason—namely that militarism is integrally related to economic production in the capitalist system, and a transition to peaceful production is hardly possible without disrupting of the system.

In a socialist system, where the government owns or controls most of the means of production, the transition from military to civil production is much easier. There will be some “frictional” unemployment as workers are moved from military or defence production and retrained for civil production. The government of a socialist country is theoretically able to make the transition with much less disruption; but they can hardly begin to dismantle their defence establishment, so long as the capitalist countries go on increasing their defence expenditure.



### **Who is responsible?**

I do not believe that the whole blame for the enormously inhuman and crazy defence expenditure in the world can be placed on the heads of the capitalist countries.

There are three other facts—

- (a) The rich capitalist countries do not have overt military governments (not even South Africa or Rhodesia). It is the poorer countries of Asia, Africa and Latin America where the armed forces exercise executive power in the government. We should thank God that has not yet happened in India, but militarism is a frightening factor in most poor countries of Asia, Africa and Latin America.
- (b) Wherever dictatorship serves an interest other than those of the people, a strong military force, military technology and military expenditure become essential for keeping the people from overthrowing their dictator (As in one case of Uganda, Pakistan, or South Africa).
- (c) Conflict among socialist countries also leads to heavy defence expenditure—witness the Sino-Russian conflict, the conflict of Russia with Yugoslavia, Albania and Romania.

Despite these three facts, the major responsibility for the state of war in which we live today should be placed on the capitalist system which uses military power and expenditure both to sustain itself and to defend itself.

### **The growing arms trade**

There is, however, yet another reason why disarmament is difficult—namely the growing arms trade in the world. The rich capitalist countries sustain their economies now by selling their obsolete military technology and military goods to the rest of the world. In many cases unobsolete equipment can also be manufactured to supply the market. Now that the Arab countries have enough money to burn, countries like Iran are becoming markets for the military production of America, West Germany, France, UK and so on. Naturally the USSR also enjoys the benefits of this growing market for military goods and the economy of the USSR also benefits from supplying military goods to revolutionary groups in various countries,

and to socialist governments. The two big powers are accused equally for exacerbating certain conflict situations in order to increase the demand for arms supply. This growing arms trade is a menace to the peace of the world. John Kenneth Galbraith proclaimed in his recent speech at the International Business Conference in Athens (October 18th, 1977) that 200 American transnational corporations produced 42 percent of all manufactured goods of the world in 1976. What is significant is that much of the production of this enormous quantity has been of military goods. The figures of US arms sales to three Middle East oil countries is alarming.

	1972	1975
Iran	\$528 million	\$2,568 million
Kuwait	—	\$370 million
Saudi Arabia	\$342 million	\$1,374 million
	\$870 million	\$4,312 million

In 1970, 40 percent of US total arms export were to NATO and 10 percent to the three Gulf countries. In 1974, 23 percent NATO, 24 percent to the three Gulf countries, and 53 percent to other countries like South Africa and Rhodesia. By 1975, 41.44 percent of the US arms sales (worth 9,511 million) was to two countries—Iran and Saudi Arabia. Iran spent \$915 million on defence in 1972. By 1975, the figure was \$10,160 millions—*i.e.*, a more than 1000 percent increase. In Saudi Arabia the figures for defence expenditure grew from \$641 million in 1972 to \$2,888 million in 1975.

If the wealth of the world is in the Gulf countries, the US wants to not only use that market, but also to increase its military influence and stake there.

### **Military bases**

We now come to the third main reason why it is difficult to dismantle the military establishment—the idea of one country having military bases in other countries, and stationing its troops there.

Under agreements concluded with the Pentagon, more than 150,000 US troops are to be stationed around the Gulf Area by 1980. Sixty thousand of these will be in Iran. In 1976 the US had its forces stationed in 40 countries. It is interesting to see where the

US arsenal of strategic long-range nuclear warheads are now stationed:

	<i>No. of warheads</i>
At sea on 284 nuclear-capable ships and submarines	4,544
Land-based Minute-men and Titan Missiles in the US	1,054
On 500 strategic air command bombers or in bomber bases	2,500
	8,098

Of the 8,098 strategic long range warheads only 3,554 are based in the US while much more than half are on ships and submarines prowling around in the world.

The US has 22,000 tactical nuclear weapons. Ten thousand and eight hundred are on bases in the US and 11,200 are outside (2,000 on US warships, 1,700 based in Asia, and 7,000 based in NATO countries in Europe). It is a fact that every second there is a high-altitude B-52 circling the earth with a nuclear warhead.

### **Further developments in arms**

The military control of the world by the US naturally calls for some resistance. At the moment only the USSR provides such resistance. What now emerges as the frightening truth is that whatever peace there is in the world is based on this balance of terror.

But what an expensive balance, this balance of terror is! The US has plans for manufacturing 244 B-1 Bombers. One B-1 Bomber, with its support system, costs \$325 million! The cost of one Trident submarine is \$1.5 billion! And the US has 10 such. That means \$15,000 million for ten submarines!

Research goes on in developing more deadly weapons. Everyone knows about the "clean" bomb—the neutron bomb. What was wrong with the good old atomic bomb that was dropped in Hiroshima and Nagasaki? Is it that it not only killed people, but also caused so much destruction to valuable property? So now we have a 'clean' bomb, which can be a true friend of capitalism—conserving what is valuable for it, namely property, and destroying only what is the enemy of capitalism, namely people!

*Time* magazine of October 17, 1977 reported that the Soviet Union has developed a "hunter-killer" satellite in permanent orbit which tracks down orbiting US spacecraft and wipes them out. It looks like a beetle and is only 10 ft. long and 3 feet wide. Its name is ASAT (anti-satellite interceptor). The huge US spy satellite called "Big-Bird" (10 tons) is now in low orbit, *i.e.*, 120 miles in space, making reconnaissance flights over all our countries. Now ASAT can shoot it down. The Russians have shown that they can do it.

So now, what should the US do? Its has a \$58.7 million programme for an anti-ASAT called Super-ASAT, which will be in operation by 1980s.

No wonder then that the US defence budget had to be upped from \$100 billion to \$120 billion. The US had a federal research budget of only \$21 billion in 1976. Of which \$6 billion went for nuclear power and space research, \$5 billion for other research, and the poor defence department got only \$10.2 billion. Most of this money is parcelled out to the three main components of the military-industrial complex. The intellectuals, *i.e.*, the universities, get a mere \$210 million. The armed forces get about \$2 billion. The corporations get \$7.8 billion. Now you see how the system works. These are 1976 figures. The 1977 figures must be much higher.

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#### *The influence of the military*

The defence department of the US

has a regular army of	2,117,824 people
a reserve of	913,867 people
a retired force of	1,107,072 people
a total of	<hr/> 4,138,763 <hr/>

In addition to this 4 million military personnel, (which cost the US Government \$58.4 billion in 1976), the defence department has a civilian bureaucracy of 953,311 people. If you add the Veterans Administration which employs another 195,700 people you have 1.15 million civilians connected with the army. Sixty percent of personnel employed by US bureaucracy (1.948 million) are in the Defence and Veteran Administration. Health, Education and Welfare employs only 6.5 percent of the total bureaucracy. When I spoke in a Church around Washington D.C. about this enormous military

establishment, immediately a defence department employee jumped up and called me a communist. And that is the worst word of abuse in America. Because, besides the 6 million people employed by the defence department, another 20 million of the work force in the business enterprises of the US have their jobs dependent on the defence department. It is very difficult to talk about disarmament in the US without getting very strong and negative emotional reactions.

What about the USSR? It is most interesting that the opposite spirit prevails among the people in the USSR. People have no anxiety that they will be without jobs if there is disarmament. They know that the government can make a transition, since it controls all employment. They know that their quota of consumer goods and cultural services will increase if the capital and human labour now expended on defence production is redirected to civilian production.

Of course, the USSR will still need the military to maintain control of the country; but once the external threat is gone, the defence expenditure can be drastically reduced. Whereas in the western countries even if there is no so-called "communist threat", they will find it difficult to redeploy their defence capital and labour to civilian pursuits for the reasons that

- (a) the Government does not control the capital and cannot direct its reinvestment;
- (b) the economic system is so deeply integrated with the defence budget that the transition will totally disrupt the system and probably cause its total collapse.<sup>1</sup>
- (c) the people take the short-term view that defence cuts mean loss of jobs and therefore there is no strong public opinion in favour of disarmament. This is true not only in the rich countries, but also in poor countries like India.
- (d) if anyone raises these issues, the reactions are emotional—that one is acting on behalf of the socialist countries which want to undermine the western defence system in order to spread communism.

## References

1. The Englishman Harry Robetson's article in the *New Perspectives* (Vol.

7, 4/1977) argues against the view of the British Defence Minister that defence cuts mean unemployment. Robertson's argument is that alternative employment can be found without disruption of the economy. The argument is much too simplistic—based on a few instances of such alternative jobs being provided).

## CHAPTER 4

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### **CAN WE AFFORD NUCLEAR WEAPONS?**

#### *The Freeze in Nuclear Weapons and its Economic Implications\**

In America, people are now determined to seek a freeze on the present nuclear weapons arsenals of the two leading nuclear powers. A mammoth referendum with almost 20 million people voting, has favoured a bilateral nuclear weapons freeze. Sixty percent of those who voted on November 2nd, 1982 wanted an immediate freeze.

The reasons for this great and unprecedented interest in nuclear disarmament in the US are not far to seek. Americans have suddenly discovered that two-digit inflation and two-digit unemployment are intimately connected with twelve-digit military spending.

The fact is, the US cannot afford the present high level of military spending. As Lestor Thurow has made it clear, "military spending is a form of consumption. It does not produce more goods or services for the future."<sup>1</sup> So, what is consumed in the military sectors should be supported and sustained by production in other sectors—civilian sectors of the economy.

But when thousands upon thousands of millions of dollars are consumed over a period of 20 years or more, the civilian economy's productivity goes down. At a recent Round Table Conference on the Nuclear Weapons Freeze: Its Moral and Economic Implications, organised by the World Conference of Religious Workers (Moscow March 83), Prof. Lloyd Dumas of the University of Texas in Dallas argued very convincingly that US productivity and innovative capacity have deteriorated considerably since 1965, and will continue to do so, so long as the military budget remains at the present or even somewhat lower levels. In the second quarter of 1979, the per

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\* Paper prepared in 1983.

hour per capita productivity *fell* at an annual rate of 5.7 percent. This means the civilian U.S. economy has higher production costs every year and is losing the markets to the Japanese and to the West Europeans. But a growing military budget demands growing productivity in the civilian sector to support and sustain the increased military spending. If, on the contrary, the civilian rate of production goes down, the inevitable consequence is not only stagnation (combined unemployment and inflation) and recession, but also an unbearably heavy national debt and large deficit budgets—which must all lead to collapse.

Within the capitalist system, which the Americans are at present unwilling to give up, there is only one solution—immediate disarmament, large-scale cuts in military spending, a massive “conversion” programme with redeployment of plants, resources and trained personnel from the military to the civilian-productive sector of the economy. Plants have to be re-tooled. Scientists and technologists have to be re-trained. Management personnel also have to be “converted”—for in the military sector they don’t have the need to be competitive; they too easily get prime allocation of resources, there is little worry about cost efficiency or about markets. Experts say that the re-training of scientific-technological as well as management-administrative personnel can be achieved in anywhere from six months to two years at the most.

### **Will all economic problems be solved by a nuclear weapons freeze?**

A freeze in nuclear weapons is only a temporary first step. It must be followed by a reduction in present arsenals as well as by a conversion of the economy.

But the nuclear weapons freeze itself will be economically beneficial to all economies. For example, the US now has plans to spend \$261 billion in the next five years for a new round in the arms race. Most of that amount can be saved if there is a freeze. The most conservative estimates say well over \$200 billion can be saved in the next ten years by just implementing a nuclear freeze even if the nation does not disarm.

That sum, however, is not sufficient to redeem the American economy. If invested in the two-third world, with proper political



structures and efficient people-oriented plans, that sum can break the back of world poverty. There is no reason to hope that even a part of that money will be made available for this latter purpose. But if the nuclear weapons freeze should lead, as it should, to substantial reduction in military expenditure, there can be hope for all.

### **The problem of technological innovation**

Prof. Dumas quoted several American magazines complaining about "The Break-down of US Innovation" and "Vanishing Innovation". The strength of the US economy lies in its capacity for innovation in technology, and therefore to reduce cost and increase quality of products. Apart, at least, of their domination of the world market is dependent on this constant capacity for technological innovation.

At least one-third and probably about one half of the best scientists and technologists of America are now employed in war production. War germinated technology has some effect on civilian production. But if a whole army of technologists and scientists can be "converted" from military-related to civilian-related research and production, certainly all civilian production systems will benefit in industrially developed capitalist countries, in socialist countries, and in two-third world economies.

Technological innovation combined with just political-economic structure alone can solve the problem of poverty for the poor of the world or save the affluent market economies from a catastrophic fall into poverty.

But even more than that, socialist economies will begin to flourish with new vitality. The Soviet Union, for example, can devote a substantial part of its present GNP (according to American experts 11 to 15 per cent) to civilian production.

### **The fear of the success of socialism**

The USSR is now embarking on a very ambitious development plan for the 1980s. Two of its major requirements are a vast amount of resources and a large force of technologists and scientists capable of innovative technological measures for higher agricultural and industrial production.

If the threat of war is withdrawn and disarmament progresses, both resources and personnel will become available and the plan targets can be reached without strain and hardship.

In fact, many people suspect that this may be the main reason why the Western nations keep up the war hysteria. Richard Nixon, former US President, brought the cat out of the bag in his book *The True War*. The biggest fear of the world capitalist economy is not the Soviet Union's nuclear weapons; but the socialist system which must replace the world's market economy system, as the latter has now to a large extent replaced the feudal system.

But the triumph of the socialist system requires that its resources and talents be utilised to create a life worthy of human beings. So long as the pressure to defend the socialist system against military attack from the market economy world keeps increasing the achievement of socialist construction will be behind schedule. Once the military pressure is let up, the pace of socialist construction will also accelerated.

It is this success of socialism that Nixon and the establishment which he once represented, most fears. *Their "true war" is not against Soviet military might, but against socialism as such.* Soviet military might inconveniences these establishments only because it defends the socialist system which they want to destroy.

### **The question of jobs**

There is a belief that military expenditure generates employment and keeps unemployment down. It is a myth. It embodies no truth.

American Defence Secretary, Caspar Weinberger recently gave fresh currency to that myth when he said "you get 35,000 more jobs for every extra \$1 billion you spend on national defence". In itself that is not true. The US bureau of labour statistics give the following figures:

\$1 billion in defence creates	20,000 jobs
do in civilian industry creates	30,000 jobs
do in the services sector creates	43,000 jobs

At present the US nuclear weapons related industry alone employs some 600,000 people. What is true is that a given sum invested in the civilian industrial economy produces 50 percent

more jobs than the same sum invested in the military sector; in the services sector the job creation potential is more than twice as much as in the military sector. Educational and Health services have the highest job creation potential. So no one should believe the myth that military spending creates employment.

### **The myth of the Soviet threat**

Most intelligent Americans are now realizing that when they were given gruesome pictures of an impending Soviet military threat they were being "taken for a ride" or plainly being deceived. When Europeans, for example, say that they have less cause to be afraid of the Soviet threat than of American efforts to defend them, Americans feel embarrassed.

The media still peddle the myth of the Soviet threat. But intelligent Americans are beginning to see through the propaganda. The alleged Soviet threat is fabricated by those who fatten themselves on defence contracts. These prime contractors are powerful and have big sums of money at hand to spend on that propaganda. Rockwell, Boeing, General Electric, General Dynamics, McDonnell Douglas, Martin Marietta, Williams Research, and others stand to lose millions if a nuclear freeze comes through, or if disarmament programmes are implemented. They have a vested interest in keeping up the myth of the Soviet threat.

But one thing we should say in favour of some of these corporations. They are exploiters, but they are both efficient and realistic. They know now that the nuclear freeze and nuclear disarmament age is coming. And many of them are already making plans for the conversion of their plants and technicians. They are afraid of losing their incomes—not of the alleged Soviet threat. And because in money matters they are bright, they are beginning the transition from military-oriented to civilian-oriented production.

To market economy, establishment has suddenly begun to realize that the economy cannot afford nuclear arms. They must divert funds and personnel from the military to the civilian sector in order to survive.

What worries them now is that while the capitalist economy will get a shot in the arm from disarmament, the socialist economy may benefit even more, since the centrally planned economies can

make the transition much more quickly and efficiently. But that may lead to the triumph of socialism and the fall of world capitalism. That, to them, is a much more real threat than the alleged Soviet threat.

### **References**

1. See his "How to Wreck the Economy" in New York Review of Books, April 6, 1981. This perspective is not new. Even Adam Smith thought so, and said so in the capitalist epic *The Wealth of Nations*, published in 1776.

## CHAPTER 5

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### **WILL THE ARMS RACE HIT SPACE?**

#### *Some Deep Anxieties in my Mind\**

The arms race on earth is quite bad as it is. We have already become numb to statistics. But the reality is that an arms race exists. The money that humanity needs to feed and clothe itself is now being wasted on totally non-productive weapons. Weapons do not bring security, but increase insecurity for all. A former 'hawk', Mr McNamara (former Defence Secretary of the US) has categorically stated in the prestigious journal *Foreign Affairs* that nuclear weapons are totally useless and cannot be used. Yet nations keep on escalating the arms race by modernising nuclear weapons.

In 1981 the world military budget was \$600 and 650 thousand million. In 1983 it would be about \$800 thousand million, which works out to more than \$25,000 a second or more than \$2 thousand million a day. If what we waste in one day on arms can be invested during the year (keep spending the other 364 days), for about ten years, most of the world's unemployment can be eliminated—if that money is wisely invested and efficiently managed. If all nations decide to put one day's military expenditure into a common kitty in the hands of efficient humanitarian bodies, then with the co-operation of national governments we can eliminate extreme poverty in the next ten years. But the will of humanity is paralysed, and it seems we cannot do it.

But expenses are going up as new weapon systems are being developed. The old is fast becoming obsolete. Obsolete but still disastrous nuclear weapons are likely to be available in the open market in ten years. Smaller nations which can afford them will be able to buy these, thereby ruining their own economies, encouraging their neighbours to do the same and thus bolstering the economies of the sellers. Maybe that is why the big nations do not want to

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\* Article written in 1983.

disarm or destroy their surplus nuclear weapons which serve no useful purpose. They are waiting to dispose them for cash when the market opens up! The thought itself is nauseating!

The future of the arms race is now in precision delivery, detection evasion and automatic anti-missile systems.

Precision delivery is moving fast and making a nuclear war more feasible than ever before. At the beginning of this year (1983) the US Defense Department asked for a budget of \$2000 billion for the coming five year period. The orders have already been given to the factories. That is the way the economy is now saving itself from collapsing. The 1983 defence budget of the U.S.A. is about \$245 billion, and another \$20 billion will come in from the arms trade with Third World countries. This money will increase the total number of nuclear warheads at the rate of about 1000 a year, but most of it will go to precision delivery and space laser war. The new nuclear weapons are smaller and much more efficient. From 8000 km away, a rocket-based nuclear warhead can be aimed to fall within 15 to 20 metres of a point on the map.

Aircraft, for war purposes, are fast becoming obsolete. Even the Sr-71, which can fly at supersonic speeds of more than 3000 km an hour at heights above 25 km, is of limited use in modern warfare, which is basically satellite or rocket based. The reconnaissance satellites fly at a height of 150 km and the focussing capacity of the new infra-red cameras is such that one photograph can show a 10000 sq. km area, seeing through the clouds amazing detail including heights of buildings, number of planes or tanks in a field, and also the temperature of a moving object like the engine of a train or a plane. They can even tell whether a moving van is carrying an MX missile or not. They can jam enemy radars from a satellite by electronic counter measures (ECM). The command, control and communication (C<sup>3</sup>) of a war operation is heavily dependent on satellites.

Since, 1960s both the Soviet Union and the US have been doing intense research on anti-satellite measures. LASER (Light Amplification by the Stimulated Emission of Radiation) is the new area where significant break-throughs in research have been made. This is the new technology—one step beyond nuclear technology. What was science fiction a few years ago is already reality today.

At the Lawrence Livermore Laboratory in the University of California, Berkeley, and in other military labs (the US Navy's Chair Heritage Project, and the US Army's White House Project in Los Alamos, for example) the basic technology of developing laser beams of varying intensity has already emerged. Laser beams can be delicate enough to suture the thin skin of the retina of the human eye, or powerful enough to burn out an approaching nuclear missile.

The more intense laser beams require a high power source, and to destroy a missile or a rocket, nothing less than the energy produced by a nuclear explosion will do. Or else a nuclear reactor will be necessary. The research now going on seems to focus on two types—a nuclear reactor in space like the Skylab, or nuclear devices which explode in space and generate electronically guided heat-seeking laser beams.

Since an intercontinental missile these days takes only 20 minutes from the Soviet Union to US or vice versa, and intermediate range missiles even less, the time in which the data about the impending attack is assimilated and the command issued to release a laser beam is quite limited. Ground-based laser beams may not be efficient enough, for it takes a good eight minutes for a rocket to leave the earth and get into orbit. It is therefore expedient to have space stations from which the laser beams can be emitted at minutes' notice. If the present trend keeps up, the Star Wars of science fiction can become real in the space around the earth. In the US, the DARPA (Defence Advanced Research Project Agency), which coordinates this research finds itself short of funds, and President Reagan is trying to get that money to them in a hurry. In the Soviet Union, there are similar projects in Kazakhstan and elsewhere. The recent South Korean spy plane incident may have been related to finding out what is going on there.

All the sophisticated defence systems are now based on space-based reconnaissance and information systems. One attempt is to use laser beams to confuse these systems so that the enemy, unwarned, would be vulnerable.

Whether it is a laser beam or a particle beam, a DEW (Directed Energy Weapon) can knock out most delivery systems—planes, rockets and other missiles. The USA is now ready to put out a DEW system in space in two or three years if sufficient funds are available. One conception is a Laser Revolver in space, a device

with a nuclear explosive and a cartwheel of about 50 lasers powered by it, each of which can be independently targeted at planes or missiles in motion, from a distance of 6000 km. The laser and particle beams travel at the speed of light, millions of times faster than any rocket we can devise (the speed of light is 300,000 kms a second).

Both the US and the Soviet Union now have blinding lasers—beams capable of burning out the sensing and guidance system of a guided missile, and making it aerodynamically unviable. The beams which can completely destroy a missile can now be developed, but stationing them in space with the nuclear devices to provide the energy is still difficult.

Both sides are now thinking that this may be possible by 1990s if money can be found to execute the projects. If the present wild ideas become realities in ten years, we may have the bizarre spectacle of 10 to 20 manned battle-stations permanently in space, fully equipped with nuclear reactors and laser beam generators.

To me, the scenario is profoundly disquieting—not because I fear my own death, but because humanity will then live under a shroud of overhanging death, and will possibly go crazy, losing all hope and acting like mad men.

People in India cannot just shrug their shoulders and shirk their responsibility on the false assumption that this is somebody else's problem. Once space becomes infested with nuclear laser weapons, the whole planet will be exposed to danger. We cannot know where the fall-out from the space-conflict will land. It could land over a large part of the earth, including India, depending on winds and rotation of the earth. As yet we also do not know if the environment both in outer space and in the atmosphere would be polluted. We are taking too many incalculable risks. The Ozone layer, which now protects us from harmful solar radiation can be damaged resulting in a much higher incidence of cancer in all parts of the world.

Some people think that Einstein was a bit too optimistic in saying that the fourth world war will be fought with sticks and stones. There may not be a fourth world war at all, if there is no one left on earth to fight. This is no exaggeration. It is close to the truth. Indians can ill afford to ignore it.



## CHAPTER 6

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### **SPACE—THE NEW BATTLEFIELD**

#### *These New Trends should be Stopped\**

In 1944, only a few people, a very select group of scientists and military men, knew about the existence of an atomic bomb. There was no public perception of the destructive potential of the bomb. By the time public horror about nuclear weapons began to find worldwide expression, the number of warheads had exceeded several thousands, more than enough to destroy the whole world.

In 1984, 40 years later, we are in a similar situation. We are now on the threshold of a new generation of nuclear powered EMP, Laser Beam and Particle Beam weapons, to be deployed in a space-ground framework. Once we take a fatal step beyond the threshold, there may be no way back from assured destruction of the earth, of all life—human, animal and plant—on our planet.

It is in this context that I want to bring to your attention my amateur understanding of the current developments in this area. The time-scale is very short. We are in 1984. The technology is to come to fruition, and the weapons become ready to be deployed in about five to six years. The time to act is now, when enormous amounts of money are being set aside for research and contracts are being given to corporations and university laboratories.

For my information I am heavily indebted to that magnificent volume, *Outer Space* (SIPRI, Stockholm, 1983), brought out by the Stockholm International Peace Research Institute (SIPRI) of Sweden and edited by SIPRI's Space and Electronics expert Dr. Bhupendra Jasani. This volume incorporates the result of the work of international panel of experts. I recommend the book *Outer Space* very strongly to all of you.

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\* World Conference: Religious Workers for Saving the Sacred Gift of Life from Nuclear Catastrophe. Working Presidium and Secretariat, Moscow, January 3-4, 1984.

## **I. Different types of satellites in space**

From 1957 onwards space became the new arena for the arms race, when various kinds of satellites were launched in large numbers. These satellites are basically of eight kinds—

### ***(a) Photographic Reconnaissance Satellites***

These are usually in low altitude orbit of about 200 km, equipped with wide angle low resolution cameras for large areas or a high resolution cameras for capturing details of narrow areas. New satellites like US Big Bird can do both in one operation. Technological advances have increased the life-time of such satellites to about 4 years. Objects can now be identified from 200 kms away.

### ***(b) Electronic Reconnaissance Satellites***

These are the “ears” in space, working on radio signals from enemy activities, communication between bases, missile testing, radar systems etc. Their eavesdropping capacity is growing every year, and many such satellites are now in orbit. Three US satellites, launched in 1978, 1979 and 1980, have a lifetime of 60, 60 and 5000 years respectively. USSR has launched several cosmos satellites with a lifetime of 60 to 100 years.

### ***(c) Ocean Surveillance and Oceanographic Satellites***

These can monitor ocean surfaces, ships, and provide all-weather photographs of ocean surfaces. Oceanographic satellites to detect submarine activity are still struggling for success.

### ***(d) Early Warning Satellites***

These began replacing radars in the 1950s. Heat sensing and infrared sensing can now detect missiles and rockets and are now very sophisticated. The latest experimental sensors were launched in 1983 in the space shuttles. By 1987 a second generation synchronous orbit sensors will be launched by the US.

### ***(e) Communication Satellites***

Eighty percent of military communication are carried out using satellites. Using geo-synchronized orbits, new technology has now devised space-based command systems for worldwide military

command and control, about 36,000 kilometres away in space. The big problem to break through is to command submarines. This is one of the points of blue-green laser communication research. It is rumoured that the breakthrough was made in 1983.

***(f) Navigation Satellites***

These are used to determine positions of targets in relation to a moving or stationary sea-based launching platform. These are several satellites permanently beaming signals, to help pin-point a target to an accuracy of about 20 metres.

***(g) Meteorological Satellites***

These are usually in an 800 km orbit, for measuring cloud formation, wind velocity and direction, but can also help in improving the accuracy of ICBMs.

***(h) Interceptor/Destructor Satellites***

These are fast developing from the ground-based system to orbiting killer satellites. There are three such projects currently in the US.

- (a) *Direct Ascent System*—a cylinder containing non-nuclear warheads launched from high-speed flying F-15, would be taken over by satellite, near target, guided to target by an infra-red homing device. This will be operational by 1985;
- (b) a non-explosive ramming device, also launched from F-15 aircraft;
- (c) *Anti-Satellite*—satellite launched into orbit and manoeuvred by radar and electronic guidance. The Soviet technique is basically of the third type—Cosmos 909, 954, 1171, 1241 and others are in orbit now.

**II. The second generation of nuclear weapons**

The new weapons' technology concentrates on altering the proportions of various kinds of energies in a nuclear fission event, and in guiding systems for weapons.

A normal fission type of nuclear weapon releases five different types of energies—

- |                                 |                              |
|---------------------------------|------------------------------|
| (a) Blast and Shock Waves about | 50 percent of total energy   |
| (b) Thermal Radiation           | 35 percent of total energy   |
| (c) Residual Nuclear Radiation  | 10 percent of total energy   |
| (d) Initial Nuclear Radiation   | 5 percent of total energy    |
| (e) Electro-magnetic Pulse      | 0.01 percent of total energy |

The new developments are design changes which alter this proportion. The neutron bomb is designed to increase the 5 percent initial radiation and also the residual radiation. No need is felt to increase thermal and blast power.

The new technology is concentrating on the last one, *i.e.*, electromagnetic pulse or EMP, which in its present design is only 1/10,000 of total energy. Even now this 1/10,000 of total energy is significant, because of the high quantum of the total energy released. The electro magnetic pulse is created by Gamma-rays to prompt Gamma-rays emitted from the nuclear explosion, and from the explosion interacting with the remaining material of the device and with air molecules. It is a high intensity pulse lasting only a fraction of a second. Electromagnetic radiation propagates at the speed of light. The field strength of the pulse can be 50,000 volts per metre.

This pulse is picked up by the antennae of all sensitive electronic equipment and transmitted to the equipment, which are then damaged considerably. A nuclear explosion of high intensity 40 km above the earth can affect all sensitive electronic equipment over an area as large as Europe, as well as of space-craft in orbit.

EMP weapons are now being developed against the enemy's communication system. A 10-megaton burst at an altitude of 400 km in space can disrupt all Hertzian wave-length communication over an area of about 3000 km in diameter, or 1500 km radius. This means about 3 EMP bombs can disrupt communications all over the US, USSR and Eastern and Western Europe in less than a second. This includes military communication as well as civilian telephone systems which are electronically operated.

It will disrupt all computers and electronic equipment including sophisticated medical equipment, accounting systems and perhaps also some of the power-grids of the world which are electronically operated.

Military communications can be protected against EMP, but at enormous expense. Present ideas of airborne command posts for war, as well as ground-based satellite communication systems necessary for war, would however be seriously disrupted by EMP.

The military is fast moving to non-electronic communication systems using fibre optics and laser beams. But it will be a long time before these can completely replace electronic systems.

An EMP bomb seems more human than the neutron bombs. It does not kill people, but only disrupts electronic equipment (provided of course that the detonation of the nuclear device which releases the pulse takes place far away in space, which it has to, in order to be effective over a large area).

It is also more human in that it can disrupt the present "massive retaliation systems" rendering them obsolete. Of course the dropping of an EMP bomb can be a signal for a massive nuclear attack, but conceivably the electronic equipment on the missile guiding systems would have been destroyed already.

But it may soon be possible to use space laboratories to generate enough power to send an EMP into a selected target area and disrupt all communications over a continent.

The worst scenario, however, is that there is a technical possibility of developing wide beams of enhanced radiation from space to ground, killing all life in a given area—say the US, USSR or Europe or other parts of the world. Hence it is crucial to have a treaty *now*, forbidding the orbiting of all kinds of weapons—nuclear, laser or other, in space. The first steps are now being taken in the UN. But much more public pressure is needed right now.

The military idea is to locate in space nuclear reactors and laboratories, producing EMP blasts or laser and particle beams of high intensity, controlled partly by people in space and partly by ground installations using laser communication systems. The research has been going on now for some 25 years or more. All space exploration is not necessarily related to putting nuclear reactors and laser labs in space. But much of it is. Look at some of the figures released by SIPRI/Bhupendra Jasani (ed.), *Outer Space*. Appendices regarding space satellites launched in 5 years between 1977 and 1981, in relation to five different types of satellites:

	US	USSR
1. Photographic Reconnaissance Satellites	11	175
Total lifetime	470 days	2600 days
2. Electronic Reconnaissance Satellites	3	30
Total lifetime	5120	1330
3. Ocean Surveillance Satellites	9	18
	13000 years	several thousand years
4. Early Warning Satellites	9	17
	more than 6 million years	620 years
5. Interceptor/Destructor Satellite	not known	16

It is interesting to note that though a larger number of satellites have been released by the USSR compared to the US, the Soviet satellites are comparatively short-lived. The book does not give much information about American anti-satellite interceptor/destroyer satellites, but the early warning satellites of the US are all long-lived, some of them can go on working for a million years.

If space becomes riddled with all these artificial satellites, the general public has every reason to feel extremely vulnerable. Some of the electronic and photo-reconnaissance satellites can detect movements and locations of an object the size of my hand. They are also potentially capable of destroying me without warning by transmitting radiation at the speed of light. I think people have a right not only to know what is going on, but also to emphatically say 'no' when what is being launched are lethal weapons aimed at the whole of the human race. We cannot allow governments to play, not with fire, but with our lives, in this way.

### **III. Speculations and worries about the future**

The types of people who were telling us some time ago that we could build cities in space and send our surplus population out there, are now dreaming new dreams. One of these dreams is that once the defense systems have been set up in space, completely automated and equipped with radiation and laser weapons, the one nation, which will be the only one able to afford this, can go on to

use laser technology to revolutionise production and undersell everyone else in the market. Competition can be suppressed both by the economy of scale and modernity of technology, as also by military power. One nation will then be free to dominate all other nations economically and politically and exploit them for ever. Capitalism will thus not only get a new lease of life, but also live for ever after in eternal triumph.

Such scenarios are actually being projected by groups in the US. Humanity has reason to be worried. It has more reason to act to prevent such dreams from leading the world to total catastrophe. This is today the special and most demanding task for religious workers and leaders, as for others.

## CHAPTER 7

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### **SAVE LIFE FROM NUCLEAR CATASTROPHE\***

Every time I look at the logo of our 1982 World Conference: "Religious Workers for Saving the Sacred Gift of Life from Nuclear Catastrophe", I feel a surge of compassion. I would like others also to feel the same compassion. For life is in danger—life as a whole—of humans, animals, plants, bacteria. And the tender sprout of life needs two human hands to protect it from the winds of war, from the scorching, destructive, anti-life fire of a nuclear catastrophe, and now from the third generation of nuclear weapons and directed beam weapons in space.

That is the clear purpose of this Round Table Conference—to pray for human hands to be raised to protect the tender shoot of life from the new peril that faces our planet and life on our planet—*weapons in space*. We need more than two hands. We need more than the hundred hands of those present here. We need all human hands to be raised, with both compassion and determination. Compassion for human life and for all life; determination to stop the mad race of self-destruction.

The focus is on *space without weapons*. This does not mean that we will stop campaigning for a nuclear freeze, for an immediate and drastic reduction in nuclear weapons, and for their planned elimination in the immediate future. To focus on space is not to forget the need for reduction of armed forces and conventional arms, or to depart from the long-term goal of general and complete disarmament. Our focus on space also means full support to the exploration of space for purposes beneficial to all humanity—

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\* Introductory speech by Metropolitan Paulos Mar Gregorios of Delhi and the North, Moderator of the Round Table Conference of Religious Workers, Moscow, April 2-4, 1984.



communications, oceanography and mineral prospecting, weather prediction, medical and related fields, as well as for space patrol.

It is therefore particularly significant that our Round Table Conference has come to coincide, not by design, with the launching of a manned space flight in which my own country, India, will be participating for the first time. Space must be explored, because it has been given to us. Like life, all that exists, including space, is a sacred gift. For us religious people, humanity is responsible for using all its knowledge and skill, to make the whole universe an expression of the glory of God and of the glory of humanity which respects the glory of God as its image in creation.

When space, or any other aspect of creation, is used, however, for destructive military purposes or for holding other nations enslaved by the domineering will of some group interests, we violate the sacred trust given to humanity. We have about 20 outstanding experts here, only some of whom are religious believers. We are immensely grateful for the presence of our secular experts. Without their expertise we cannot fully know what is going on. And it is our policy to co-operate most whole heartedly with secular agencies and people in the work for peace. But we are here as religious workers committed to saving the sacred gift of life from a nuclear catastrophe. It is as religious workers that we will appeal to the conscience of humanity, to rise up with a united voice to stop the arms race now already entering space. It is our religious faith, and the compassion for humanity that compels us to speak and to act.

So every time I see that logo of two compassionate human hands protecting the tender shoot of life from a possible nuclear catastrophe, my heart goes out in gratitude to God for the initiative of His Holiness Patriarch Pimen of Moscow and All Russia, who, in cooperation with all the Buddhists, Christians, Judaists and Muslims of this country, set in motion the world conference two years ago, and supported the first Round Table Conference on the Moral and Economic Implications of a Nuclear Freeze, and again supports this second Round Table organized by the Working Presidium of the World Conference of Religious Workers, led by our beloved Metropolitan Filaret of Minsk and Byelorussia, Chairman of the working Presidium, who has already welcomed you here. Let me add my own warm greetings to all of you, as the moderator of this Round Table Conference.

Let me state first that I am no expert. To the experts may I make a humble request. Please try to speak to the Round Table Conference in such non-expert language that even your moderator can understand the situation and the problems connected with it, then we can together speak to peace workers all over the world in a language which they can understand.

As you can already see, we have three sectors in our programme—

- (a) New weapons technology and new strategies.
- (b) Problems of a new treaty banning weapons in space, and
- (c) Practical suggestions for action by peace groups to stop the arms race now entering space.

The outline prepared by the working Presidium gives you a survey of the main areas we want to cover. Can I put some questions to you in a simple manner? I hope the experts will help us answer some of these questions.

1. The Anti-Ballistic Missile Treaty already signed on May 26, 1972, almost 12 years ago, says the US and the USSR agreed "not to deploy ABM systems for defence of the territory of its own country and not to provide a base for such defense, and not to deploy ABM systems for defense of an individual region". It already banned ABM radars and system components, whether based on sea, land, in the air, or space. Could you tell us whether the present schemes of a space-based ABM system is a violation of this treaty or not? If it is a violation, how is it justified? What loop-holes in the treaty are being used? How do we move towards a more effective treaty? This, it seems to me, is the central question for this Round Table. In order to answer that question, we need some information.
2. To what extent does a space-based anti-ballistic missile programme enhance the security of a nation? If it does not, then on what grounds would a government administration justify the enormous expenditure on research in and manufacture of space craft and space-based weapons?
3. Can you tell us of the role of the discovery of the electromagnetic pulse as a component factor in the explosion

of nuclear weapons, its effect on war strategies? I have been given to understand that the field strength of the EMP can be as high as 50,000 volts per metre, or even more. This can lead to the disruption of all military as well as civilian communication networks and control systems, to the disruption of all computers and electronic components of warning and guidance systems, of electronic control systems, of emergency cooling systems even in peaceful nuclear reactors, and possibly of the total electrical power grids in countries affected by it. How does the factor of EMP affect the current defence and war-fighting strategies? Does this not work out, in the last analysis, to an imperative need to give up nuclear weapons as a whole? Can our experts enlighten us lay people on this topic? Are nuclear weapons already obsolete?

4. We would like to know something more about the technological feasibility and the possible consequences of
  - (a) High energy laser beam weapons launched from space;
  - (b) Particle beams which are neutral in space and change in the atmosphere.
5. What hard data do we have on the possible consequences for global climate and the peril of desertification of the earth, ensuing from even a "limited" nuclear encounter, and even the encounter between a bevy of missiles and ABMs in space, even if the ABMs are 100 percent effective (which now seems unlikely)?
6. It is clear that the satellites and spacecraft already in orbit have a military as well as a civilian function. How do we draw the line in an enforceable way between military use of space and civilian use of peace? Can our space technology be used for an effective space patrol, internationally controlled, to prevent the use of space for war and to monitor land and sea-based war preparations?
7. And finally, what should we, as members of humanity do, to stop the arms race now entering space and to put space technology at the service of peace and international cooperation?

We will proceed step by step. First, the data on new weapons and strategies, then the treaty problems, and, thirdly, practical steps. The major discussions will be in the three small groups of about 20 people each. Let us be disciplined in our speaking, and refrain from generalities and platitudes. Let us look at these problems from the perspective of the whole of humanity and not narrow national interests. Let us be guided by genuine compassion, by our commitment to the best interests of humanity as a whole and to the conservation of all life on our planet. Let the Spirit of Truth and Love, of Justice and Compassion lead us to wisdom and courageous actions.

## CHAPTER 8

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### THE HOUR IS LATE!\*

#### Star Wars

"High Frontier" was the name of a Pentagon monograph prepared around 1980 by General Gaham (retired). The ideas came from the veteran scientist—Edward Teller. It was scientifically and technologically possible, according to this genius of modern science, to erect a "Magenot Line in space", an "absolutely reliable" anti-missile defence system, the high frontier of imagined American security.

The pace of the race to doom accelerated with the "Star Wars" speech of President Reagan in March 1983, more than two years ago. The "Strategic Defense Initiative" (SDI) would, according to him, take the US into the new age of unquestioned military superiority over others, for the SDI is a system which no other nation can afford to build. Or so some thought.

The rhetoric was dazzlingly clear, written by a superb speech writer and delivered with impeccable actor's training. The message to the US public is clear. If the US is protected by an automated defence shield in space, people can live in peace and security, and the US can fearlessly pursue its policies in the world. No one can question or challenge the US.

The positive appeal came from two "angles" in the presentation—(a) that it is a purely defence strategy; and (b) that it is anti-nuclear, since its purpose is to destroy missiles carrying nuclear war-heads. Both points are attractive to many unthinking Americans. Both "angles" are distortions of the truth.

The purpose of the defence system is not security against Soviet aggression in the sense in which people understand it. The

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\* Keynote address delivered at the Christian Peace Conference, Prague, 1985.

US wants immunity from external challenges so that it may carry out its own worldwide aggressive and exploitative schemes without being questioned by any powerful force outside. It is not the Soviet threat that justifies the SDI, but the desire of US neo-colonial and imperialist forces to control and exploit the economies of the world.

I know that many of my friends are allergic to words like "imperialist" and "neo-colonialist". These words are not just red rags. They have a real meaning. "Imperialism" means one nation building up an "empire" which it can dominate economically and politically. Neo-colonialism means a colonising of the economies of other countries through trans-national corporations and through linkage with national capitalist elites of developing countries, in such a way that markets, raw materials and primary products in developing countries serve the interests of the neo-colonial power. The existence of imperialism and neo-colonialism in our world today is an established fact. For some intelligent and sensitive people in the industrially developed countries and in the developing countries, the realisation of the existence of imperialism and neo-colonialism in our world and of the fact that they are participants on the erring side in these phenomena, bring an unbearable sense of guilt. That explains the allergy to the terms themselves.

The flourishing of the market economy world is made possible by the imperialism and neo-colonialism practised by an international elite. The SDI is a way of protecting and boosting imperialism, neo-colonialism and the market economy system which breeds them.

My own objections to the SDI are based on the following facts and observations—

- (a) When the whole world is demanding a halt to the arms race, the SDI takes the world in the opposite direction, to a new, nearly suicidal stage in the arms race.
- (b) The stated purpose of the SDI is security for the US. In fact, it does not provide such security. All available scientific estimates speak only of a maximum of 90-95 percent reliability for a space-based anti-missile system. The remaining 5-10 percent margin is sufficient to destroy any country and to disrupt the life-system on our planet. The latest scientific consensus says that only 1 percent of our present nuclear arsenal is sufficient to endanger the life-system on earth.

- (c) On principle, humanity cannot accept the idea of security based on one nation's superiority over all others. Such security for one nation will mean insecurity for all others or security only under conditions of enslavement by one superior nation. This is morally unacceptable.
- (d) The system involves an enormous expenditure of the tax payers' money which does not bring proportionate returns for them. Instead of increasing their security, it only lulls them into a false security if they do believe in the "absolute reliability" of the "space shield". The technology research will cost \$30 billion in 1985-89. The actual system will cost more than \$500 billion for the US.
- (e) The technology for evading the space shield and destroying a country totally is now available in the form of systems which use the earth's atmosphere for delivery of nuclear weapons—such as cruise missiles, especially missiles mounted on submarines.
- (f) Since the space shield is largely based on orbiting satellites, there is already a frightening development—as we predicted—of ASATs on both sides—anti-satellite satellites which will go into orbit, track down and destroy other satellites. A satellite-based anti-missile system is extremely vulnerable. And one attack on a satellite would be sufficient to trigger an all-out nuclear war. Thus, the SDI increases the possibility of a nuclear war and the destruction of the planet.
- (g) Essentially the space shield is one component of an offensive, not a defensive system. The idea is that it will be temporarily useful while preparing for an incapacitating first strike against the enemy. We know that among the other components of the SDI there is a "belt" of Patriot missiles already being deployed in a "cordon sanitaire" around the socialist countries. These US made ground-based missiles are already with the US troops in Western Europe. West Germany and the Netherlands have already agreed to buy them and deploy them. Other Western and Arab countries and Asian countries like Japan and Korea are being pressured to deploy them against the socialist countries. On June 26th this year, the UPI reported from Washington that the US plans to sell 262 Chaparral missiles plus launchers and vehicles to Taiwan.

- (h) An anti-missile system of this kind violates the existing anti-ballistic missiles treaty signed by the US and the USSR in 1972. Once we get to the stage where international treaties can be violated openly and with impunity, the whole system of world security collapses. Both the US and the USSR are pledged by the treaty not to deploy ABM systems and not to provide a base for such systems, since these endanger the whole world.

These eight reasons should be adequate for the whole of humanity, including all US citizens, to oppose the SDI with all the power at its command. Christians have to take a strong and global initiative on this matter; let us hope that the Christian Peace Conference, the World Council of Churches, and the Roman Catholic Church together will make a joint initiative in this regard to appeal to the conscience of humanity.

There are other reasons, which can, of course, be debated. One reason is that it is one way of using the taxpayers' money to bring quick profits to the corporations which underwrite the present political process and support the present regime in the US and in many other Western countries. If something like \$600 billion of the taxpayers' money are thus to be spent on research, development and deployment of a space-based anti-missile system, a good share of it—not less than \$200 billion—will go as profits to the corporations and for underwriting the expense account of the military-industrial banking complex in the world.

Yet another reason on the part of the designers of SDI is the effect that they hope it will have on the socialist economies of the world. There is no reason to hide the fact that the socialist countries will not be able to sit idle in the face of such alarming developments in the West. The burden of increased military expenditure is already on the CMEA countries. Many of their plans to raise the level of civilian consumption in their countries are under considerable strain today. The only course open to them is to make a greater effort to increase overall production, so that the war effort can be financed and the standard of living raised at the same time.

The CMEA economies did fairly well in 1983-84, as a result of a new discipline in production. In 1983-84 the Soviet Union in 1983-84 started a scheme involving a select 700 factories, for a



higher production discipline and better use of raw materials. The experiment was successful and in 1984-85 was extended to include 6000 select factories—about 1/9th of the total industrial production machinery in the USSR. The focus is on consumer goods production—especially better food supply, higher-quality entertainment, leisure and household goods (TV sets, refrigerators, washing machines, sports goods etc.) and better housing. Ten million flats and single family homes had been constructed in 1981-85, exceeding the plan target of 530 million square metres of living space by about 24 million extra square metres. In 1985-86 another 50 million should be provided with housing.<sup>1</sup>

All socialist countries have similar schemes to raise the living standards of their people. If the demand for increased military expenditure becomes too heavy, some of these schemes will have to be cut down. This is the hope of the authors of the SDI—to bring down the high rate of economic growth in CMEA countries, in order to create dissatisfaction, dissent and revolt among the people such as occurred in Poland when the economy was mishandled. In 1981-84 the CMEA countries' aggregate industrial production grew by 90 percent (in 5 years). Cubans and Rumanians had one of the highest growth rates in the world in 1983-84—7.4 percent and 7.7 percent respectively. Even the GDR and Poland grew by 5.5 percent and 5 percent respectively in 1983-84. This should be compared with sub-Sahara Africa which had a growth of about 0.2 percent (ECA estimate) in that year. And the rate of growth in many western countries has been very low—near zero. This despite having transferred at least \$140 billions in profits from the two-thirds world in the 1970 and a similar amount in the last five years.

If the socialist countries grow too impressively, socialism will become a more live option for the peoples of the two-thirds world, and they will rise in revolt to overthrow the international elite which now rules and exploits them. Once this happens the whole market economy system will collapse. The only way to prevent that happening is to force the world socialist system to collapse. Keeping up the arms race and the rate of military expenditure helps in both ways—to gain new markets and quick profits on the one hand, and to put pressure on the socialist systems to make them collapse.

The hour is late. The world has taken too many steps towards self destruction. It is not too late; but it is late. Space, once the hope

of mankind, is now already taken over by the military. The research programme to develop nuclear power plants for space vehicles, launched by the US on February 11, 1983, is now in full swing, and many technical hurdles have already been overcome. The research programmed to develop and test laser tracking instruments and devices is already well advanced. \$27 billion has already been allocated for a research programme on space-based defense systems. On January 25, 1984, President Reagan announced the plan to build a permanent orbital station worth \$8 billion, to serve as a command and communications base for nuclear war, as well as a nuclear and laser weapons assembly plant. A couple of weeks before, on January 6, 1984, President Reagan signed Directive No. 119, allotting \$2 billion for research on laser and beam weapons. Lockheed and other corporations have contracts on many projects "Talon Gold", "Lode", "Alfa", "Chair Heritage" and "White Horse"—terms which strike apocalyptic terror in the hearts of sensitive Christians.

On June 10, 1984, an experimental ICBM war-head was missile-intercepted 160 km over the Pacific Ocean, and brought down. On November 13, 1984, the second preliminary test was successfully completed for the Miniature Homing Vehicle (MHV), which can destroy a satellite and come back. This is to be deployed in 1987. The USAF is now testing the MHV on targets in space. A rapid-fire electro-magnetic gun is now being developed. Particle beams may be a while yet, but laser beams have been developed. The space vehicle, "Discovery", has returned to earth after successful experiments in laser beam production and tracking from space.

The Star Wars mania is spreading. Mrs. Thatcher is an enthusiastic supporter. President Mitterand called for the development by Western Europe of a manned military orbital station. If other Western governments do not co-operate, France would go it alone (said President Mitterand in February 1985).

The hour is late! The time to act is now! God calls—Choose life!

### **The economic situation**

Our theme is life and peace. We cannot discuss questions of war and peace without discussing the roots of war in political economy.

Let us first look at the cost of war itself. World War I cost us \$260 billion. World War II cost us more than a dozen times as

much—\$3,300 billion. But now, without any world war, we are spending \$600 billion a year or more. In the past 40 years since World War II we have spent at least 5 times as much as the cost of World War II.

Meanwhile, in Africa millions have died without food and medicine due to an unprecedentedly severe drought affecting 20 countries—Sudan and Ethiopia being the worst hit. The UN has come forward with a massive but inadequate programme of emergency aid of US \$1,719.6 million for the 20 countries of which Ethiopia gets \$388.6 million and Sudan \$381.3 million. Mali, Niger and Chad come next, with allotments of \$139.7, \$132.4 and \$113.9 million respectively. Kenya and Zimbabwe are coming through with some good rainfall, with the threat of flood. Tanzania, Mozambique and others are also in need.

I must pay tribute to the peoples of the world who have come to Africa to feed their hungry brothers and sisters. US Vice-President, George Bush announced that the US will provide half of Africa's external food needs this year, and this may mean an extra expenditure of almost \$1 billion this year for the US. We must congratulate the people and the government of the US on this magnanimous act. Italy has promised \$900 million for Africa and other areas for the next 18 months.

I was in Ethiopia in April, visiting the affected areas and assessing the people's needs. Some 10.5 million people are badly affected by the drought—about 25 percent of Ethiopia's 42 millions. The other 75 percent of the population are only indirectly affected by higher grain prices.

Food assistance is needed for at least 10 million starving people in Ethiopia alone. At the rate of 400 grams of grains a day that comes to 1.5 million metric tons for a year. I am so glad that almost 1 million tons have been pledged, and half a million tons have already arrived. There is a shortfall of 600,000 tons, but we hope that Canada, US and the World Food Programme will see that this need is met. Even a poor country like India has allotted a hundred thousand tons of wheat to Africa this year and has already sent 57,000 tons to Ethiopia in two ships.

It was a most heart-warming experience for me to land, by our own special DC-3 aircraft (a gift of the Lion's Club in Sweden), in

the northern city of Makalle in Tigray, and there at the airport find Russian, American, Canadian, West German, Czechoslovak, Hungarian and other special planes jostling with each other.

We visited the camp at Makalle, where the destitute are cared for in tents—62,000 people in tents, 2 families to one tent, after some 80,000 have been sent to various settlement programmes; scores of thousands are waiting to be accommodated in the camps. Of these some 20-25 thousand are being given food rations from the camp, but sleep in the open without shelter.

The Ethiopian Orthodox bishop was with me. As I saw a large Ethiopian church in the distance, I commented to the bishop: "That is a nice church. Has it been recently built? It is quite large." His reply: "The church is large, but can accommodate only a few thousand. More people are coming to church from these camps. We cannot accommodate them... But our cemetery is not big enough."

I saw a tear gather in the young bishop's eyes as he said: "One week we had to bury 8000 people. We buried them ten to a grave. It was rough."

That is the other war, taking its toll of millions who die from starvation, under-nourishment and ill health. That is a front on which we have to put all our resources, our money, our science and technology, not only for emergency relief, but for banishing injustice, exploitation and oppression which takes place in South Africa today.

Let us concentrate on Africa—since that continent is more bound to Euro-American capital than even Latin America. The Lome Convention was signed in December 1984, giving privileged access for the European Economic Community to the markets and primary products of 65 American, Caribbean and Pacific countries.

That is the new strategy—to divide the non-aligned into separate groupings and to enter into separate agreements with each, in order to make the interests of the different two-thirds world countries conflict with each other. The Lome Convention allows Europe to keep its hold on African and Caribbean countries.

The African share of international trade in agricultural products was 9 percent in 1960. By 1980 it fell to 5 percent. The share of

trade of raw materials (excluding oil) fell from 8 percent in 1960 to 3 percent in 1980.

Africa is hit by drought and is nearly bankrupt. As export earnings go down due to a shrink in markets and unfavourable trade terms, African nations take more and more loans. Sub-Sahara Africa's external debt was \$60 billion in 1970. Today, in 1985 it has grown to \$150 billion. Which means debt service charges alone come to more than 15 billion dollars a year. IBRD says 85 percent of the loan assistance received in a year is needed to pay off debt service charges.

It is this kind of a system that the military-industrial-banking complex wants to defend. It is alright to give \$1.72 billion to Africa amidst a disastrous drought, if that continent yields \$15 billion a year in debt service charges and another substantial amount in profits taken out of the continent by Trans National Corporations (TNC).

Western investment in Africa is about \$11 billion and in the 1970s alone \$140 billion was taken out by TNCs from the two-thirds world. Knowledgeable people say that every dollar invested in Africa yields about \$3.50 in a very short time.

It is not, as I have often said, and spokespersons for the UN Commission on Disarmament and Development pointed out before me, a matter of taking the money now spent on armaments and giving it to Africa.

Let us say that the market economy of industrially developed countries spend about 6 percent of their total GNP on military expenses. That is a substantial amount—about \$400 billion a year. Of course 2 percent of that money wisely invested in the two-thirds world and can overcome the problem of poverty in about 10 years.

The issue is, however, more than that. It is the question of how this 6 percent of GNP in market economy countries is used to control the way the remaining 94 percent is distributed among the market economy countries. The 6 percent supports an oppressive white minority regime in Southern Africa, frustrates the freedom struggles of the Namibian people, supports the counter-revolutionary insurgents in Central America, finances and arms the Afghan Mujahideens to fight the socialist government of Afghanistan,

foments troubles in socialist and non-aligned countries, supports military dictatorship and organises destabilisation in other countries.

In other word, market economy supports armaments and bolster the unjust economic and political structures. So peace is not a question merely of stopping the arms race and giving military money to development projects. The issue is how military power reinforces the industrial-banking establishment, including two-thirds world elites, to retain its exploitative and oppressive grip on the peoples of the world. The fight against the military establishment cannot be separated from the fight against the industrial-banking establishment of the market economy world.

Choosing Life means fighting the forces of death on all fronts—not only on the war front, but also on the injustice front.

### **A new interpretation of the Christian faith**

The Christian Peace Conference is not a political organisation, but an ecumenical Christian organisation with a social commitment to peace with justice. Our faith is in our Lord Jesus Christ who has overcome the powers of death and destruction. It is this faith that gives us confidence that the forces of death will not triumph, that they will be beaten back as the forces of Nazism were beaten back forty years ago.

As Christians we have a special task. Too many Christians today are uninterested in the issues of war and peace. One reason is their understanding of the Christian faith primarily in terms of personal salvation alone. We need a new ecclesiology in the context of a new anthropology. I am not asking for a "theology of peace", but a new and more faithful interpretation of our understanding of God's purpose.

We do not have the time to develop this theology in this brief address. But the main element of the new ecclesiology and new anthropology is a fresh understanding of the whole of humanity and not just individual persons as constituting the image of God. It is this whole humanity which was created in the image of God, which was assumed by Jesus Christ in the incarnation, and which is to be redeemed from the powers of evil and sin and death.

The Bible does not say that only Christians were created in the image of God, or that only Christian humanity has been assumed

by Jesus Christ. The Patristic concept of the *pleroma* or fullness of humanity as the fullness of Christ and as the fullness of God, has to be deeply studied. All human beings, male and female, Christian and non-Christian, believer and unbeliever, belong to this fullness. The Church exists for the full redemption of this whole humanity. It is the whole of humanity and not just Christians who are called to show forth the fullness of the glory of God in all love, wisdom and power. The task of the Church is to be a servant and priest of this humanity, in order that it may fulfill its vocation.

This humanity exists only in an integral relation with the whole of the rest of creation—animals and plants, sun and moon, matter and organic life.

The Church of Jesus Christ, as the Body of Christ, conscious of its own identity as Christ's body, must work and pray for the manifestation of Christ's glory. This glory is in the unity and reconciliation of all of humanity along with the rest of creation—in love, joy, peace, justice and holiness, in wisdom and creative power.

Before I conclude, I need to say a brief word about our sisters, and mothers and daughters—who form the majority both within the Church and in the whole of humanity.

It is a simple fact that male domination has put the stamp of domination and one-sidedness on both the Church and the world. It is also a fact that the male of the species has become tired, unimaginative, uncreative. We are living in a time when the full energy of our women, with their higher imagination and creativity, has to offset the imbalance and distortion brought into our societies by male domination.

In the Christian Peace Conference (CPC) women have begun to play an increasingly important role, but their participation is far from adequate. Particularly in the peace movement, the participation of women and children has become an urgent need. They can turn the tide. Men now lack the imagination, the creativity and the willpower to stop the disastrous course on which humanity is drifting.

Women have played a very large and pioneering role in the great peace demonstrations of recent times. But this pioneering has only been a first step. We men need to give up some of our positions

of leadership, in order that creative and able women may take their legitimate place in the leadership of the CPC. The CPC should become a model to other organisations of the peace movement in this respect. I gladly state that I would personally be very happy if I can give my place in the leadership of the CPC to a dedicated and able woman, and I would gladly follow as a simple worker.

And our sisters should become more active in recruiting dedicated women to the cause of peace with justice. We need that woman power in this hour of crisis for humanity.

*Poverty not only persists in Asia but in fact spreads. The gap between the rich and poor grows despite considerable economic development, and substantial expansion of the middle classes. The cry for justice becomes acute and urgent, but draws only a defiant negative response from those who wield power in the international economic, banking, industrial and fiscal structures. As there is a growing realisation that potential nuclear doom extends to the whole globe, despondency leads to cynicism and violence.*

From the statement on the situation in Asia

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1. Soviet Review—April 11, 1985.



## CHAPTER 9

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### **BANISH AND BAN NUCLEAR WEAPONS!**

#### *Some Hurdles in our Way to a World Without Weapons of Mass Destruction \**

At Reykjavik, 1986, humanity, in its frantic search for peace and security, entered a plateau. It was a plateau of vision and hope. For the first time, the weary world saw a more than faint glimmer of hope.

For the first time, the heads of the two leading nuclear powers agreed on two principles—(a) that it is *desirable* to eliminate nuclear weapons totally, and (b) that this is a *feasible* goal.

Where then was the disagreement at Reykjavik between General Secretary Gorbachov and President Reagan?

The Soviet leader held that the two most important first steps towards a world without nuclear weapons were—(1) a total freeze on the research, testing and deployment of any new or improved nuclear weapons, delivery systems or ABM system; and (2) a substantial immediate reduction of strategic and tactical nuclear stock-piles on both sides as a preliminary to a time-bound scheme for the elimination of all nuclear weapons.

General Secretary Gorbachov had proposed on January 15, 1986, a time-table for total elimination of nuclear weapons by the year 2000. That was already a great, realistic, and statesman-like vision, not fanciful or far-fetched. Many regarded the 15-year time-span as too ambitious. President Reagan proposed that nuclear weapons be reduced to zero by 1990 that is, in four years. Let us give credit to President Reagan for the boldness of his proposal,

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\* International forum "For a Nuclear-Weapon-Free World, for the Survival of Humanity" Religious section, Moscow, February 14, 1987.

even though he may have known this was not a realistic proposal. Gorbachov also agreed with the proposal, perhaps knowing that if they came to an agreement on principle, the time-span for implementation would have to be extended.

The important thing was that they agreed on the principle of total elimination, and in a comparatively short time-span for its implementation. This was the source of the hope in the hearts and minds of peace-loving people all over the world.

### **Why Reykjavik failed**

Why then did the Reykjavik mini-summit fall through?

President Reagan insisted on two preconditions—first that the US should be allowed to go on with the so-called Strategic Defence Initiative, clearly meaningful only as a component of an offensive, pre-emptive, decapitating, First Strike Plan. The second precondition, which did not get as much media publicity as the first, was that the Soviet Union should not stand in the way of US expansionism in Central America, Southern Africa, the Middle East or the Far East.

President Reagan knew quite well that the two preconditions would be totally unacceptable to the Soviet Union; the first was intended to destroy the Soviet Union, and the second to make it collaborate with US plans for imperialist expansion in all continents.

Hope still springs anew. The Geneva talks, many hope, will bear fruit. On the Soviet side, Yuri Vorontsov is the chief negotiator—one whom I know well as a statesman genuinely committed to peace, security and welfare for the whole humanity. Let us keep hoping that the two sides would agree immediately on a freeze, on immediate reduction of half of the strategic weapons on both sides, on total elimination of tactical and theatre nuclear weapons from Europe, on a comprehensive test ban treaty, and on large reductions in conventional weapons and forces.

### **Reykjavik and the future**

There is a joke, I understand, going around in NATO circles.

*Question:* "Reykjavik was a failure. What could have been worse?"

*Answer:* "Success."

Yes, there are groups with various interests who do not want nuclear weapons to be eliminated. It may be useful for us to examine their expressed arguments, as well as their unexpressed motivations.

First, there are those who argue that nuclear weapons are cheaper for defense than conventional weapons. This argument, if true, should have been confirmed by a massive reduction in the defense expenditures of the nuclear powers. What we actually see is a continuous escalation of defence costs in the nuclear weapon states. Even if they were economically cheaper than conventional weapons—which is not the case—the human cost in terms of anxiety, risk and insecurity is so much higher, that no economic argument can justify the presence, possession, threat to use, or use of nuclear weapons.

The other argument is more sophisticated. They suggest that in a world with no nuclear weapons, any nation with five nuclear weapons can hold other nations to ransom. There is a point to that argument. The answer to it is that, to keep the world free from nuclear weapons, we need four factors—

- (a) the total elimination of nuclear weapons and an international law making such weapons illegal;
- (b) an international system of monitoring and verification of nuclear disarmament;
- (c) a total ban on research, development, possession, testing, deployment, threat to use or use of nuclear weapons;
- (d) an international authority with sufficient clout to enforce the ban on nuclear weapons, and to punish violators whoever they may be—nations, groups of terrorists or individual terrorists—by sanctions or other appropriate non-violent means.

It is a fact that the technology for making nuclear weapons is now available to at least 50 nations in the world. It is also a fact that groups and individuals can now have access to that technology; there are corporations and groups which can also afford the cost of nuclear weaponry and delivery systems.

A further problem is created by the fact that the distinction between conventional warfare and nuclear warfare becomes increasingly blurred. Some modern "conventional" weapons may

have nuclear components. We know that nuclear weapons can be delivered by so-called "conventional" artillery. Besides all this, there are frightening developments in chemical and bacterial warfare; though non-nuclear, these weapons are capable of mass killings.

To add to the confusion, a great deal of money and scientific research is now going into ET, which is now a technical term meaning *Emerging Technology* of war. Some of these emerging technologies have already emerged, like Laser Beam Technology, while others like Particle Beam Technology, are still in the process of research.

Once it becomes clear that nuclear weapons will be banned and made illegal, it seems inevitable that nations will invest more and more in ET. This could lead to even more destruction and more catastrophe. If this happens then nuclear disarmament would lead us no closer to peace and security.

We are at this stage in our "progress" towards the capacity to destroy each other, to destroy our planet, and possibly to make life itself impossible on this planet—

- (a) the growing destructive capacity of our conventional weapons;
- (b) a growing stockpile of nuclear weapons and delivery systems;
- (c) a menacing development in ET Which can be worse than nuclear weapons; and
- (d) a new stage in the arms race, initiated by the SDI.

In working towards nuclear disarmament, there is thus an urgent need to look to ways of reducing and eliminating some so-called conventional weapons (chemical, bacterial and electronic), and preventing the alarming developments in ET (Laser, Particle Beams etc.). Peace-workers throughout the world have therefore to direct their efforts against all three forms of armaments—conventional, nuclear and E.T.

### **The human factor**

But these are only weapons, and weapons are used by human beings. Peace efforts for a world without nuclear weapons, a world without weapons of mass destruction of any kind, require more than a campaign against the three categories of weapons. Our peace

campaign must also deal with the human factor. In relations to the human factor, here are at least three aspects to be considered—

- (a) how to make people trust each other;
- (b) how to overcome the power of vested interests (arms traders, defence contractors, profit-mongers, military researchers, etc.), over media and over human consciousness; and
- (c) how to put an end to the structures of oppression, exploitation and domination which lead to conflict of interests and eventually war.

#### **(A) The building of trust between nations**

This process is historically slow, but historically also possible. There is trust and cooperation between the nations of Europe—like Spain, Holland, Portugal, England, Germany, France and Italy, who have a long history of being at war with each other

Historically, the process of change from tribal or ethnic existence to national existence was difficult, and even now difficult within complex nations like the US, USSR, Great Britain, Nigeria or India. But the change has happened, and tribes have learned to trust each other and work out a national framework within which difficult tribal or ethnic interests are coordinated and balanced.

The time has come now to move from national to international structures of existence. Our economics are no longer nationally self-contained. Even our political structures are now quite often interconnected, if not in theory, at least in practice. A world without nuclear weapons will be possible only once there is an international authority or regime which can stop any nation from developing new weapons of mass destruction after nuclear weapons have been eliminated and banned.

Such an international structure or regime cannot be formed by just a few powerful nations. It will have to be internationally democratic, answerable to and representative of the global community of nations, and must also have the power to enforce the ban and to punish offenders by political and economic means, be they nations or terrorist groups. Socialist nations as well as market economy nations will have to formally pledge that they will not use nuclear weapons for war or for changing governments, either one's own or

the other's. I am sure that socialist nations have no difficulty in pledging not to use nuclear weapons (or threaten to use them) as a means of changing the form of government in non-socialist countries. Similar pledges will have to come from market economy nations.

The most important element in creating mutual trust among nations is the removal of the distrust based on falsehood—for example, the fear of a Soviet invasion of the western world or vice versa. This distrust will be partially removed when there is more general disarmament. But it is important also to instal neutrally and internationally controlled monitoring mechanisms to check on war preparations and manoeuvres of all nations on the earth. This, it seems, is now technically feasible, and given international political will, financially possible.

But trust should also be based on the creation of an open internationalist attitude among the peoples, starting with very young children, in school or pre-school, and also by a deliberate use of all media available for mass communication.

This confidence building through institutional and mass education should be a high priority for all peace-loving forces.

### **(B) Overcoming the power of vested interests and the media controlled by them**

It should be clear to all people who have studied the scene today that the socialist countries are committed to the peace movement and its goals, whereas ruling circles in the market economy countries are vehemently opposed to the peace movement, and spend a lot of money and effort to sabotage, counteract or infiltrate the peace movement.

The reason for this is not far to seek. In the case of socialist countries, the matter is very clear. If military expenditure can be reduced in socialist countries, there will immediately be a spurt in civilian consumption levels, and a sudden increase in socialist standards of living. So long as there are nations in the world heavily armed and intent on destroying socialism by all means socialist countries feel the necessity to defend socialism by military means as well. Once non-socialist nations disarm and accept the principle of peaceful cooperation and co-existence among nations with differing politico-economic systems, socialism would make such a

headway and become much more attractive to the peoples of the world.

This precisely seems to be what some market economy nations are determined to prevent, through constantly accelerating the arms race.

To put it very bluntly, ruling circles in market economy nations have a vested interest in opposing disarmament and détente, and in accelerating the arms race and the arms trade. This interest is a three-fold one—

- (i) slowing down the growth in the socialist standard of living, in order to reduce its attraction and to stop its spread. This is done by keeping up the pressure to spend more on armaments and by promoting more curtailment of socialist civil liberties in the interest of national security to make socialism more burdensome to socialist peoples;
- (ii) to provide for a steadily expanding market, by using the taxpayers' money for defense expenditures, and by fomenting small wars (150 since 1945) all over the world which produce a demand for armaments production and trade. A steadily expanding market seems to be an absolute necessity to prolong the present market economy system.
- (iii) to prevent the emergence of a strong and powerful peace movement within the parliaments and peoples of market economy nations, by distributing the benefits of military production in the various electoral constituencies; *i.e.*, to create a situation where a freeze, for example on military production would have immediate catastrophic consequences for each electoral constituency—like the collapse of corporations and factories unable to make the transition to civilian production and civilian markets, and the consequent rise in the unemployment rate; like also difficulties for politicians and political parties as well as the media (television, radio and newspapers) which depends on the support of these very same corporations which make easy and assured profit out of the tax-payer's money.

The implications of this analysis for peace movements in market economy countries is quite obvious. The presence and power of the

exploiting ruling circles depends on the perpetuation of an unjust market economy system. The peace movement must expose the economic structure and the injustice built into it. Nuclear weapons systems are so deeply rooted in the economic structure of market economy nations, that one cannot pluck out nuclear weapon systems and military production from the economy by a single decision of the government. To take the military production out, or even to freeze it, will cause not only temporary hardship, but also initiate new revolutionary movements within the market economies working for a socialist revolution.

As peace movements begin to expose the connection between military production, trade and the political economy, there will be heavier repression used against the peace movements. We have to face such repression if we really want a world without nuclear weapons. The fight for justice must thus always be an integral element in the struggle for peace.

### **(C) Peace-justice relation**

For us in the peace movements of the two-third world, a peace movement that does not at the same time fight for justice is unattractive. We must state our view frankly. We feel uncomfortable at the peace movements of Western Europe and North America, precisely because of a tendency to isolate the issues of peace from justice.

There was a time when I used to argue for two states or two consequent goals for the peace movement, namely first priority to nuclear disarmament as an immediate concern, and as a second stage or long-term goal, the issue of peace with justice. I still hold to that distinction, but not whole-heartedly any more.

I myself used to argue that while general and complete disarmament and a lasting peace have to be a framework of national and international political-economic justice, the campaign against nuclear weapons should be a top priority independent of the connection with justice. My argument was that there would be no society, just or unjust, after a nuclear holocaust and therefore we must unite with all possible forces for "saving the sacred gift of life from nuclear catastrophe". For us, religious people, there is something sacred and God-given about life itself—even if that life is lived in unjust societies.



Today, I feel the need for a slightly different distinction, in order to be realistic. The new distinction I make is between initiating and advancing the process of nuclear disarmament, and working for a world without nuclear weapons.

I still believe in the vision that General Secretary Gorbachov showed us in January 1986—entering the 21st century with clean hands, eliminating all nuclear weapons by the end of 1999, little more than 12 years from now. And I will hold on to that timetable in preference to President Reagan's timetable of 1990, to eliminating all nuclear-weapons hardly three years from now.

Our agenda on peace movements today should be a concerted effort of massive public demand for four things as an immediate top priority.

- (a) a campaign for the reduction of all nuclear warheads and delivery systems by half, to be implemented before December 1987 in order to initiate the process of nuclear disarmament;
- (b) a simultaneous campaign for a total ban, not only on testing but also on manufacture, improvement, trade and deployment of all new or improved nuclear weapons and delivery systems;
- (c) a campaign for the signing and ratifying of a treaty banning research, development, manufacture, trade, stockpiling and deployment of all non-nuclear weapons of mass destruction—such as all chemical, bacteriological and climatological weapons, and all directed energy weapons, including laser and particle beams;
- (d) a substantial, drastic reduction of conventional forces and weapons by all nations, including non-aligned nations, followed by a world disarmament conference in which all nations of the world sit down together to work out a comprehensive, time-bound scheme for both general and complete disarmament, and for effective international instruments for enforcing disarmament and peace, within just, democratic, national and international structures.

We need to pay a special tribute to some of the recent initiatives from the non-aligned movement. The significance of this is not always fully grasped by people, since the six nations who met at

summit level are non-nuclear powers. But that is the major new development since the two special sessions of the UN General Assembly on disarmament. Nuclear disarmament is no longer a concern of the nuclear powers alone, for three reasons. First, because space is only a hundred miles away from any non-aligned or other nation. SDI brings space wars closer to people than their own capital cities. Second, the new calculations and discoveries about nuclear winter makes it clear that a war in Europe would affect life in all continents. Third, with more than 50 nations developing nuclear capacity, nuclear disarmament has to bind all nations equally.

India's leadership in this development was recognised by General Secretary Gorbachov in his famous Vladivostok address of August 1986, and on several other occasions. The very large area of agreement in matters of global policy and disarmament, between the socialist countries and the non-aligned countries, constitutes a very major element in the world-wide peace movement.

The visit of General Secretary Gorbachov to New Delhi from November 25th to 28th 1986 was indeed a landmark in the development of socialist-non-aligned relations. The Delhi Declaration signed by Prime Minister Rajiv Gandhi and General Secretary Gorbachov on November 27th, asked for a world free from nuclear weapons as well as from the violence of war and terrorism. The Delhi Declaration is now being widely studied in India and abroad, not only by intellectuals, but also by ordinary village people, peasants and workers.

This aspect of the peace movement is extremely important for the shaping of a world without nuclear weapons and without the violence of war and terrorism.

## **Conclusion**

War thrives on injustice, oppression and exploitation. Disinformation or lying propaganda is a major instrument of those who promote the arms race and the arms trade. They can even promote war by telling the truth—for example, telling Iraq what Iran is going to do or vice versa, in order to sell weapons to both.

A world without weapons of mass destruction is what the peoples of the world want; but it is denied to them by certain

privileged groups all over the world who stand to benefit by it, and by the media and political structures dependent on them.

The campaign of the people for peace is now a big job—not dependent upon the Geneva or Vienna or other talks alone to get us what we want, but to begin to expose the economic structures of militarism, and to mobilize the people's power against the power groups that promote war, including the media. This economic analysis and exposure, to me seems the highest priority, and we must engage the best minds of the world to do this analysis and exposure.

We must also mobilize public opinion against developments in chemical and bacteriological warfare as well as in ET developments.

We have to also focus on science/technology, in order to release it from the captivity of the war-and-profit seekers, and to make it available for the service of the real needs of humanity.

We have also to give support for the new movements within socialism—not for the so-called “socialism with a human face”, which could have easily become a mask for capitalism had it developed, but for a socialism in which the human factor is vibrant, vital, free and creative.

From the plateau of Reykjavik, let us advance, hand in hand, all of us in the peace movement, with a 12 year plan to eliminate all weapons of mass destruction from our planet.

## CHAPTER 10

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### **NOT HEWN IN STONE**

#### *Three Aspects of the Soviet Response to SDI\**

A paper was presented at the seminar on Star Wars held at the Jawaharlal Nehru University, New Delhi, December 1986.

This paper sought to highlight three aspects of the Strategic Defence Initiative (SDI) programme—

- (a) The nature of SDI as perceived by people;
- (b) Technical and economic aspects of SDI and people's response to it;
- (c) Counter proposals for international common security.

#### **(a) The nature of SDI**

The SDI of the US, was announced to the world public in the famous Star Wars speech of President Reagan on March 23, 1983. By the time President Reagan and General Secretary Gorbachov met at the Reykjavik pre-summit on the 11th and 12th of October 1986, the announced programme had undergone significant changes, mainly in response to strategic and technical criticism from within America—from military strategists, from academic technical analysts and from the general public.

President Reagan, soon after his Star Wars speech, set up within the Pentagon a special organisation to administer the programmes—Strategic Defence Initiative Organisation (SDIO), and Ballistic Missile Defence (BMD) programmes.

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\* Fifth Round Table Conference of theologians and scientific experts "Common Security and Moral-Ethical Values", Moscow, March 16-20, 1987.

As originally designed, the SDI programme deals with four areas,

- (a) Surveillance, Acquisition, Tracking and Kill Assessment (SATKA);
- (b) Defensive weapons;
- (c) Systems concepts and battle management;
- (d) Survivability, lethality and key technologies.

Clearly these programmes envisage a nuclear war involving ICBMs. It would have no meaning in a situation where nuclear weapons are already extinct and obsolete, or where nations are living together at peace in a system of common international security. The Soviet Union does not believe that the SDI is a mere defensive measure. The softest construction that the USSR can put on the US strategy is that it is directly related to a particular battle strategy—namely to start and wage a war in which the US will make a first strike which will so disable the enemy's nuclear forces, that any retaliatory strike will be feeble, and will be sufficiently counteracted by the three-phase,<sup>1</sup> automatically activated, defence umbrella. Once most of the "enemy's" missiles have thus been intercepted, the damage in human lives and property caused to America by those missiles that break through the defence umbrella would be "acceptable". Mr. Robert McNamara once (in the 60s) defined "unacceptable damage" as destruction of 1/4th to 1/3rd of US population and 1/2 to 2/3rd of US industrial potential. This would, according to him, take a nuclear strike of more than 400 megatons yield. The military experts have assured President Reagan that with the paralysing first strike and the SDI, the resulting damage to the US from a US initiated all-out (not limited) nuclear war would be "acceptable".

In other words, the SDI's effectiveness is not to be computed in terms of an all-out first strike by the USSR against the US. It becomes effective only in combination with a paralysing massive first strike by the US on the USSR—using ICBMs, IRBMs, SLBMs and tactical weapons, launched from ground, air, sea, under-water and space. Ground means the ground not only in the US and Western Europe but also the military and naval-air bases located in all parts of the world.

This original perception of the US administration has not changed substantially. What has changed is only the strategy, not the goal—of destroying or at least totally paralysing the USSR. The argument of many technical analysts that the maximum achievable efficiency of the SDI is 95 percent does not daunt the U.S. administration or the Pentagon. Their Kill Assessment (KA) research foresees a 5 percent or even 20 percent “seep-through” scenario. The point then is to make sure that the retaliatory strike of the USSR would be so feeble—*i.e.* less than, say a thousand megatons yield—that the maximum seep-through of 20 percent, that is 200 megatons, can only cause “acceptable damage” to American lives and property. Meanwhile the first and the second strikes launched by the US would have “finished off” the USSR to such an extent that the surviving Soviet Union would be so paralysed as to constitute no threat to a surviving, comparatively much stronger, US. This is the “winnable” nuclear war theory, and the SDI is perceived by the USSR as a component of such a strategy. The US insistence on continuing its underground nuclear tests in the face of the unilateral Soviet moratorium and of a strong protest from the US public, confirms this Soviet assessment.

The charge in SDI strategy has come partly in response to technical problems of feasibility, and strong West European reactions. One such reaction was that of France, which had its own independent defence programme and did not want to depend on a nuclear umbrella provided and controlled by the US, unnecessarily inviting Soviet counter-measures. Francois Mitterand’s speech of February 7th 1984 to The Netherlands parliament was a clear indication—

“(If Europe had launched) its own manned space station, allowing it to observe, transmit and consequently avert all possible threats, it would have taken a big step towards its own defense.”<sup>2</sup>

The formal invitation by the US to its NATO allies on 26th March 1985 to join SDI was prompted by the fear that the Mitterand proposal for an independent Western European defence programme would jeopardise the US strategy of world domination. But in April 1985, France proposed a European Research Co-ordination Agency or EUREKA. In November 1985, France more explicitly proposed a possible West European independent missile system. Eighteen West European governments meeting in Hannover, FRG, on 6th and

7th November 1985, adopted the EUREKA programme. On the other hand, on 6th December 1985, the UK signed a Memorandum of Understanding with the US to co-operate in the SDI programme. The US has recently rewarded Britain by giving it a multi-million dollar contract for supplying certain SDI components.

The Netherlands has agreed to contribute about \$8.5 million annually to the EUREKA programme while France has committed about \$125 million to it. All this added up does not compare with the US SDI budget of \$2.7 billion for 1986, but is very significant. The West European commitment to SDI is thus far from the total budget.

The change in US SDI strategy in 1985 points to a shift from talk about the comprehensive space umbrella for the US and its allies, to talk about a "limited" SDI, with "zonal" or "point" systems. The USSR regards this shift mainly as disinformation directed at American public and their technical experts who regard the comprehensive anti-missile programme as unfeasible and unrealistic. This Soviet view has been articulated clearly in the "Report of the Committee of Soviet Scientists for Peace against Nuclear Threat" (See paper entitled *Space-strike Arms and International Security*, Moscow, October 1985). The US disinformation policy, according to this paper, seeks to mislead people into believing that these "limited" anti-missile systems are for defending the US from smaller nuclear powers, and that these systems would be to protect land-based IBM silos.

The Soviet scientists argue that this is not credible, and is, in fact, unnecessary. The same purpose can be served by "enhancing the reliability of self-detonating devices in strategic carrier systems with autonomous homing".

West European governments, except that of the UK, go ahead with their own defence system research—Euromatic (automation, laser, communication, and computer research), Eurobot (robotics), Euro-bio (biotechnologies) and so on. In December 1985, Chancellor Kohl of FRG and President Mitterand of France met to agree on a joint planning institution to work out a European defence initiative concentrating on an anti-tactical ballistic missile system (ATBM). This programme does not violate the ABM treaty as the SDI does, since the former does not deal with tactical missiles.

At Reykjavik, SDI was clearly seen as the major obstacle to humanity entering the 21st century "with clear hands", *i.e.* without any nuclear weapons at all.

## **2. The technical and economic effects of SDI**

Part of the NATO strategy against the WTO is Emerging Technology or ET—a concept developed in NATO circles (initiated by a Weinberger paper) in the 1980s that a high level of technology is the essential for military superiority in the face of higher conventional weapon capabilities of the enemy.

ET is divided into three sub groups—Emerged, Emerging and Exploratory.<sup>3</sup> Emerged technologies are those already incorporated in the existing weapon systems (e.g., laser warhead dispensers carried by aircraft). Emerging technologies (mainly tracking and surveillance) are likely to be fielded in the 1990s, and Exploratory technologies (e.g., Directed Energy Weapons like Particle Beams) will be ready in the 21st century after 15 to 20 years of research.

In December 1985, the NATO Defence Planning Committee approved the secret document called the Conceptual Military Framework study, which advances the Follow-on Forces Attack (FOFA) strategy proposed by NATO's Supreme Allied Commander in Europe, General Bernard Rogers, in 1982. This strategy is oriented to using ET for various types of attack on the second and third echelons of all forces. Europeans would like to concentrate their attack on the first echelon of an advancing army, while Americans give priority to the technology research for dealing with the second and third echelons. The Conceptual Military Framework (CMF) study is meant to co-ordinate the US and West European concerns and interests. SDI research is related to the CMF and ET is the new spear-head in the so far unstoppable arms race.

West Europeans are not as much afraid of Soviet advances in ET, as the advances of their American allies, which might render western Europe a permanent satellite of the US. The competition in ET is between the US and western Europe on the one hand and between the Soviet Union and its WTO allies, and the strategic alliance of the US, Western Europe and Japan on the other.

FOFA research alone is expected to cost \$30 billion over a 10-year period for the NATO. Despite affirmations by General Rogers



and others to the contrary the Soviet Union clearly sees this as an offensive strategy on the part of NATO which claims to be a defensive system.

ET research on the part of the West has not been passively accepted by the WTO. The report of the committee of soviet scientists clearly states—

“As far as real basic research is concerned, such research is under way and will continue. The USSR is carrying out this kind of research in outer space, but it is not aimed at developing components of space-based strike weapons. In its military aspect it is aimed at improving early warning, surveillance, communications, navigational and meteorological space systems. It goes without saying that none of these areas in research has anything to do with a programme that could be regarded as analogous to the US SDI programme.” (*op. cit.* pp. 53-54)

The WTO military expenditure is growing, but not as fast as earlier or as the growth in over-all economic output, as the following table shows—

	1970-75	1980-85	1984	1985
Economic output	6.5%	3.0%	4.0%	3.5%
Military expenditure	5.1%	3.0%	3.9%	2.7%

These are figures computed from IMF and SIPRI sources.<sup>4</sup> Comparable figures for NATO will show that military expenditure has been growing much faster than that in the WTO. The US is pressurising western Europe and Japan to spend more on arms than they are now doing. All this adds up to considerable pressure on the Soviet government, and on the CPSU, especially from its own military leadership.

The CIA estimates of the Soviet military expenditure have been notoriously mis-informative, calculated to give impetus to the arms race and US military spending. Carl Jacobsen tells us in his SIPRI article on ‘Soviet Military Expenditure and the Soviet Defence Burden’ (1986), that “when the CIA doubled its estimate of the rouble value of the Soviet military budget in 1976, it did not add one soldier, ship, or aircraft” (p. 264-265). The CIA in its “dollar-

costing" of Soviet military expenditure, estimated the cost of a Soviet soldier, getting about \$6 a month, as the equivalent of \$20,000 per annum (*ibid*). It was on the basis of such inflated estimates that the US public was told in 1976 that the USSR military spending was a third to a half higher than that of the US. The American public found out that they were taken for a ride, and by 1983 the CIA began to admit that their estimate was not accurate. And the US Congress began demanding cuts in the defense budget.

In November 1984, Moscow announced, as a response to President Reagan's persistence with SDI plans, that the Soviet Union was increasing its defense budget by about 12 percent—a staggering figure. The announced increases, however, did not show up in the 1985 budget or in the actual known expenditure. The Soviet defence industry also serves the civilian population by producing refrigerators and video equipment for civilian consumption, building roads and bridges, and even building civilian edifices like the Moscow State University. Soldiers even help gather the harvest.

Besides, the Soviet military system is much less wasteful and economical than that of the US. Also, a great deal of displayed Soviet military strength in the 1970s was discovered by US intelligence to be phony or dummy. Since 1977 that policy has changed, with the appointment of Marshall Ogarkov as Chief of General Staff.

Contrary to speculations in the West, better informed observers of the Soviet Union know that the Soviet military leadership agrees with CPSU leadership (in which it participates) that nuclear weapons are unusable except as racial suicide pills, and that their maximum use is their deterrent force. In fact Marshall Ogarkov has re-affirmed the need to concentrate research on non-nuclear weapons, even after Reagan's Star Wars speech of 1983. Ogarkov went out of power at the end of the Chernenko period, and the 1984 announcement of a 12 percent increase in military spending came as Marshall Akhromeev took his place. Akhromeev was deputy under Ogarkov, and is the author of major prevailing Soviet military strategy documents.

General Secretary Gorbachov replaced Akhromeev by Ryzhkov. At the December 1985 meeting of the COMECON premiers, Ryzhkov gave a clear plea for advance in ET, very similar to that of Western Europe's EUREKA and not so similar to Reagan's SDI

But as Jacobsen aptly puts it—

“Official statements serve propaganda, obfuscatory and declaratory purposes. Contradictory postures may reflect audience discrimination rather than policy differences. Suffice it to say that Soviet reaction to SDI is not hewn in stone.”<sup>5</sup>

The Soviet Union's response to SDI is perhaps more subtly flexible than any flexible strategy of the West. In the West it is the military-industrial complex that dictates goals and strategies. It is clear to the Soviet Union that western strategies of paralysing first strikes combined with SDI have five primary purposes.

The first is to make deterrence work to US advantage by making it unilateral. The unrealistic hope is that the Soviet Union will never be able to achieve parity with the US, and that from a position of military and technological superiority, the latter can deter the Soviet government from promoting socialism. The most dreaded enemy of the military-industrial complex in the so-called 'free-world' is not the Soviet Union, but socialism. By achieving technological-military superiority, the military-industrial complex of the market economy world, including our own Indian component of it, believes that it can check the advance of socialism and continue its position of privilege in nationally and internationally unjust economies. That complex wants the peace of unilateral deterrence, not unilateral, bilateral or multilateral moratoria on testing and deployment of whatever weapons they choose to "secure" their domination. It is that kind of military-industrial complex dominated security that the poor of the world cannot accept.

The second purpose of all these strategies is to keep the tottering banking, monetary and commercial systems of the market economy world from collapsing, by pumping the tax-payer's money to their exploiters. This is the best way to channel the tax-payer's money (billions of dollars every year) to the corporations and arms trade systems. To make that work, the imagined Soviet threat seems to be the best available ploy so that imagined threat and imagined military measures against it will continue to be fostered by the complex and the media which are dependent on it. The complex perceives peace and disarmament as major threats to its existence. It will spend as much money as it wants to fight the peace movement, by infiltration, buying off, and subversion. The Soviet Union also

realizes that the power of the market economy military-industrial complex is the greatest enemy of progress towards peace and disarmament. It must therefore develop its own counter-offensive against the anti-peace strategy of the complex, in order to promote justice and socialism in the world.

Third, the complex holds the firm belief that socialism can be broken down by economic pressure by spending more on defense than it can afford. The hope is that as the economic pressure mounts to spend more on war and defense, the consumer's standard of living in socialist countries will remain low, and by fomenting internal dissent, the civilian consumers will help overthrow the socialist system.

The fourth purpose of SDI is to use tax-payer's money to secure some advances in civilian technology. Only then can the US regain domination of the world's market economy, which it is in danger of losing to its competitors like Japan and West Germany, the two defeated nations of World War II. The military-industrial-administrative-scientific-technological-media Complex keeps recruiting new allies into its ranks, subtly promising them higher advantages at the cost of the tax-payer. Military funds can be used for advancing research in science and technology so that corporations can continue to make quicker and higher profit, in order to give more privileges to the complex's already privileged middle-class elite.

The fifth goal is to use limited wars to disable the competition in the market economy. If western Europe or Japan can be destructively involved in a war that does only limited damage to the US, then US domination of the world becomes assured. President Reagan's cowboy-script would then ring true, "The US is back and standing tall".

Since the Soviet Union knows all this, its strategy has to be very flexible. It seems to me that its priorities for itself are mainly the following—

- (a) Go all out for invigoration of the socialist system for maximum out-put both to bear the burden of increased military spending and to improve the standards of civilian consumption;
- (b) To that end, go all out for accelerated development of science technology and culture not merely at an elite level, but at all

levels. In this General Secretary Gorbachov seems to have been, at least in part, the mentor of Rajiv Gandhi, who seeks to apply the same strategy in a totally different political economy. Gorbachov has an integrated political social and industrial system at the command of the leadership. And just as the Soviets surprised the West in the fifties by developing its own high-yield nuclear weapons, they may do it a second time by developing a highly developed technological economy and a more creative culture in the nineties.

- (c) Soviet research, which has been going on, will not try to initiate something like SDI, but will spend its resources on technology to counteract and disable SDI, which would not cost one-tenth of SDI costs.
- (d) Meanwhile, knowing that this new spiral in the arms trade has disastrous consequences for both market economy and socialist worlds, the Soviet Union will continue, with redoubled efforts, its programme for a non-nuclear world, by securing as many allies as possible from the Non-Aligned Movement, in the movement for peace and disarmament. This explains, in part, the high priority Gorbachov gave to his recent Indian visit.
- (e) Exercise the remnants of the Stalinist ethos from all socialist societies, so that the people can feel that they are part of the show, and enthusiastically contribute to economic and cultural creativity. This explains the recent (November 1986) formation of the Soviet Cultural Foundation (See *M.N. Information*, November 15-17, 1986), with the leading academician Dmitry Likhachev as Chairman, and supported by voluntary contributions from the public, in order to promote cultural creativity, variety and freedom, and to co-operate with UNESCO, and similarly motivated cultural foundations abroad.

**(c) Counter-proposals for international common security**

I shall list here very briefly the proposals of Soviet scientists—

1. Respect and implement that ABM Treaty of 1972, which does not explicitly forbid research. But each side has undertaken in Article V, "not to develop, test, or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based"; and in Article 1 "not to deploy ABM

systems for defense of the territory of its country and not to provide a base for such a defence". Disrespect for international agreements and undertakings makes life impossible in the international community of nations.

2. Immediately begin to reduce strategic weapons or weapons capable of reaching the other's territory by 50 percent.
3. Immediate freeze, on both US and USSR sides, as well as other nuclear powers, further development or improvement of nuclear weapons and delivery systems.
4. Suspend all work on development, testing and deployment of space-based strike weapons.
5. Liquidate existing anti-satellite weapons on both sides.
6. The US halt siting of medium range missiles in Europe, as the USSR has already agreed to do.
7. Work out a Comprehensive Test Ban Treaty.
8. Both sides should undertake not to deploy any nuclear weapons on the territory of states presently having none.
9. Agree not to replace already deployed nuclear weapons in other countries by new nuclear weapons.

The Gorbachov proposals of January 15th in the International Year of Peace, as well as his more drastic Reykjavik proposals are still on the Geneva agenda. The two leaders agreed in Reykjavik to the complete elimination of all ballistic nuclear missiles of US and USSR. They also agreed on complete elimination of all Euromissiles from Europe. Gorbachov agreed to cut his Asian-based SS-20 warheads from 513 to 100. Gorbachov also agreed in principle on on-site electronic verification. He also agreed to an immediate 50 percent cut in nuclear weapons to the level of 1600 delivery vehicles and 6000 warheads on both sides.

The Soviet position is that if the US administration accepts and implements these proposals, SDI would be rendered obsolete, and the world will begin to be freed from its present fear psychosis to work towards an international common security for all, based on open communication and mutual trust.

SDI will not make nuclear weapons obsolete. A stronger movement of governments and peoples peace and disarmament, let us hope, will make both SDI and nuclear weapons obsolete and non-existent.

## References

1. The three phases are boost, mid-course, and terminal phase. In the boost phase, the surveillance, acquisition and tracking will mainly be through space-based radar and optical sensor systems, while for the second phase, namely when the enemy weapon is in space orbit, and for the third phase, when the weapons re-enters the atmosphere and closes in on target, the SATKA sensing and killing would use combined surface, air and space components, including lasers.
2. Cited by B. Jasani in "*The Military Use of Outer Space*"—Chapter 7 in *SIPRI Yearbook, 1986*, to which and other articles in it the present writer is much indebted.
3. The distinction is discussed in Dim. Abshire, "*New Technology and Intra-Alliance Relationships, New Strength, New Strains*", in the Adelphi Paper 199, published by the International Institute for Strategic Studies, London, entitled *New Technology and Western Security Policy*, 1985. The SIPRI yearbook 1986 has an article on "Emerging Technology" by Gunilla Herolf.
4. *SIPRI Yearbook*, 1986, p. 216.
5. *SIPRI Yearbook*, 1986, p. 270.

## CHAPTER 11

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### **THE INSEPARABILITY OF DISARMAMENT AND DEVELOPMENT\***

Mr. Chairman, and fellow participants—

I am grateful for this opportunity, to say a few words to this august assembly on behalf of the three hundred or more Christian member churches in more than a hundred countries that constitute the World Council of Churches.

I am especially pleased to be under the eminent chairmanship of you, sir, an esteemed friend and head of the delegation of my country.

May I, sir, ask your permission to begin with two caveats before I go on to make my positive points.

First, I am not convinced that disarmament and development are two separate and clearly distinguished processes. Almost everyone, with some significant exceptions, admits that the two processes are related. Then why this anxiety to keep them separate and distinct? Why should we be so afraid of fully uncovering the fairly obvious fact that part of the purpose of materialisation in the world is to bolster up unjust regimes and processes and to distort the patterns of world development in order to favour the rich and the powerful? Disarmament seems, therefore, to be one of the preconditions for a just and equitable development. Just development requires the dethronement of armed might that now supports unequal and unjust world development and uneven national development. This does not mean that we have to wait until all are disarmed to start work on development. What it means is that so long as armed

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\* Text of the speech made at the United Nations' international conference on the Relationships between Disarmament and Development by Metropolitan Dr. Paulos Mar Gregorios, President of the World Council of Churches and Chairman of NCCI Unit III, August 27, 1987.



might is in the hands of oppressors, they will continue to thwart equitable development. It is clear to me that disarmament is an integral part of development—they are not two totally separable processes.

My second caveat is aimed at the assumption that the success of this conference will be measured by the extent to which it establishes a fund for development financed from cuts in armaments. Others express the same view when they suggest that the main purpose of this conference is to see that less money is spent on arms and more on development. I do not think that is a foregone conclusion. I will be glad to see such a fund established and all nations contributing to it, by reducing their defence expenditures, only because it will be one way of highlighting the relation between development and disarmament, not because such a fund can be expected to do much to promote development.

My hope, sir, is that we will not spend all our energies on working out the difficulties of such a fund. The difficulties are simply enormous. If we make the contributions voluntary, it will have the same fate as the fund created by the UN Conference on Science and Technology for Development. If we seek to levy an excise tax on armaments, we do not know who has the authority to do so, and whether the nations that matter will pay. Besides, would not such a tax legitimise weapons of mass destruction and put them on the same level as alcohol and tobacco?

In 1979 we uncovered two huge issues—(a) that modern science/technology, humanity's most privileged tool, was being used more for war and profit than for the good of humanity, and (b) that 96 percent of global science/technology research was in the hands of the industrially advanced, while the poor of the world had only 4 percent of the total. The 1979 conference's main solution to the problem was to set up a fund to promote research in the developing countries. In fact, the problem uncovered was huge, and the fund as a practical proposal or remedial measure, was wholly incompetent to dealing with it. The problem uncovered remains untackled till this day.

Here, too, the problem uncovered is huge—affecting the whole of humanity and our future. And if our remedial measure is only the creation of another fund, we as a conference, would have to be

pitied, just as the UNCSTD of 1979 and the two Special Sessions of the General Assembly devoted to disarmament are to be pitied.

The central issue, sir, is the role the arms race and the arms trade play in promoting and defending unjust and unequal patterns of world development—not that of saving half or one percent of world defence expenditure and spending it on development—not that of poor nations begging for money. We live in an increasingly interdependent world, and we have to develop together if our development is to be just and equitable.

If the arms race and the arms trade go on at their present pace and rate of acceleration, there is no hope for any of us, rich or poor, south or north, developed or developing, east or west. In the present pattern of world development, the rich become richer and consequently more guilt-ridden and intransigent, while the poor become poorer but no longer willing to continue as mendicants. Some rich try to stop the poor, by force of arms, from revolting. It has never worked in the past. It will not in the present or in the future.

The central purpose of this conference is to put before the peoples of the world a vision of a new world, where common security for all nations is achieved without weapons of mass destruction, and with a minimum use of force; where nations trust each other and deal with each other on the basis of trust; where no nation is allowed to endanger the security of other nations in pursuing one's own; where a new international morality undergirds a world in which just and equitable as well as culturally creative human development is possible for all; where no nation oppresses others and seeks superior military might to sustain such oppressive patterns of domination and exploitation; where modern science/technology is freed from its bondage to war and profit; where our present economies, in which both industrial might and the political machine seem bound to defense budgets, war production and the arms trade, are converted from military production to serve the real needs of humanity.

It is to promote that vision and to expose the present oppressive and sinister military-industrial-informational systems that we need a fund. I hope, Mr. chairman, that if a fund is to be set up, these two purposes will form part of its aims—promotion of the vision and

uncovering of unjust patterns. In the end, only when the people see such visions, can the present stalemate and dead-lock of injustice and oppression break, and true human development become possible in a just world of common security, without weapons, promoting the dignity, freedom and creativity of all human beings.

Thank you.

## CHAPTER 12

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### TURNING TO THE FUTURE\*

Professor Ivan Frolov, President of the Philosophical Institute of the Soviet Academy of Sciences, and Dr. Lubomir Mirejovsky, General Secretary of the CPC, tackle the same subject (*i.e.* the roots, the nature and the challenge of New Thinking) from two independent points of view—from the philosophical and from the theological one, the former as an outstanding marxist, the latter as a Christian thinker. Reading through their contributions, one can only agree with the view expressed spontaneously by the participants of the Second Globalism Symposium, that such thought provoking and friendly dialogue is worth continuing.

#### **Disarmament, global development and global common security**

If all goes well, the epoch-making first step should be behind us by mid-December. The auguries are good for the signing of the first major treaty for the reduction of nuclear weapons. The Washington Summit meeting between President Ronald Reagan and General Secretary Mikhail Gorbachov begins on December 9th.

The intermediate-range and short-range nuclear weapons of the US and the USSR will be totally eliminated if the treaty is signed. This applies to all ground-launched missile systems of the two leading nuclear powers—Pershings, Cruise Missiles, SS-4s, SS-12s, SS-20s and Pershing 1-As—everything ground-launched between 500 and 5000 km range. We hope that in less than a year,

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\* Lecture given at the Second Symposium of Christian Peace Conference on the questions of globalism, which was held in Prague, in November 1987.

The lecture given by Metropolitan Mar Gregorios from India, Vice-President of the CPC and one of the Presidents of the World Council of Churches, on the very theme of the approaching Continuation Committee meeting deserves the attention of all, not just the participants.

from December 1987, the treaty will be ratified and implemented. The hope is that the Pershing missiles owned by the US and deployed in the FRG, would also be included.

All those intermediate and shorter range weapons together constitute about 4 percent of the total nuclear arsenals. Negotiations must also advance for an agreement to scrap 50 percent of the strategic missiles during 1988. There will still be enough left over—about 48 percent of present arsenals—to destroy our planet several times over. We cannot rest in security until all nuclear weapons of all nuclear powers are totally eliminated—including tactical or battlefield nuclear weapons. But the trend today is to strengthen the navies, that is, ships, air-craft-carries and submarines with more and more nuclear weapons. The struggle for total elimination, therefore, has to be unrelenting. The time for peace movements to rest on our oars is still very far in the future. Especially as land-based nuclear weapons gradually yield place to water-based weapons and as new technologies of naval battles are being evolved we have to focus on making the oceans and seas free from nuclear weapons.

It should be a matter of some concern for all of us that the intermediate and short-range nuclear missiles now planned to be eliminated, including cruise missiles, are the ones that a space-based ABM defense system cannot cope with because of their shorter acceleration path or low altitude. It could very well be the strategy of those who depend more on space-based ABM to eliminate those nuclear weapons they cannot easily cope with. The partial reduction of nuclear weapons may be only a step towards perfecting a pre-emptive first attack strategy. The elimination of these weapons increases the "security" of the one who can pull the trigger first. The refusal of the US to discontinue SDI research is an indication that a winnable nuclear war strategy is not yet abandoned. And since there is no nuclear freeze, new and more deadly weapons continue to be added to the stockpiles. Most of the work for peace will still be ahead of us after the Summit.

In this connection I need to say a word about the recent UN International Conference on the Relation between Development and Disarmament, held at the UN headquarters in New York from August 24th to September 11th. The proposal originally came from President Francois Mitterand of France. His idea seems to have been based on

proposals before the UN to create an International Disarmament Fund for Development. The UN General Assembly has adopted several resolutions (in 1980, 81, 82, 83 and 84) appealing to all states to reduce military budgets and reallocate resources to development.

President Mitterand had envisioned a future in which resources saved by disarmament would be channelled into development, particularly in the developing countries. There must have been the hope that, once such a fund was set up, the developing countries would become more interested in disarmament since they would stand to benefit from it directly. The UN conference this year did not adopt a resolution to create the International Disarmament Fund for Development. What it did, however, has turned out to be even more significant. The consensus document produced by the 150 nations participating in the conference, has been called a landmark. The US did not participate, on the plea that disarmament and development are two independent processes and should not be considered together in a conference—a point of view the 150 nations unanimously repudiated. The document becomes a landmark for the following reasons—

- (a) It not only officially and politically recognised the inseparable relation between disarmament and development. It pointed out that global military expenditures were a major cause of distorted and unjust global development; that we have to choose between continuing the arms race and the growing militarization on the one hand, and a more equitable global development on the other.
- (b) It officially recognised the “non-military threats to security”—in hunger and poverty, ill-health and illiteracy. It thus enlarged the concept of security to involve North-South relations which are always a factor in East-West relations. So long as some people remained victims of oppression, exploitation and injustice, there could be no final peace or security. Economic security for all is an essential part of global common security.
- (c) It recognised the triangular relationship between disarmament, development and common security. We have seen clearly that global common security, based on mutual trust and cooperation among nations, is an essential aspect of just and equitable

development in the world. International security must not be dependent on the force of arms or on the threat to use force. Common security, development and disarmament are thus integrally related to each other. Long-term equitable global development as well as general and complete disarmament are both dependent on devising and setting up a system of international, global, common security.

### **The global economic crisis—its meaning and significance**

October 19th, 1987, marks the beginning of the end of the military-industrial complex. On that day, now called Black Monday, the value of stocks in the market economy world crashed dramatically. In one day, shareholders worldwide lost \$500 billion—about the amount of the total of two-third world debt. The Dow Jones index climbed down 508 points in one day—something unprecedented in market economy history.

Even the late Great Depression did not see such a dramatic fall. In the three years from September 1st, 1929 to July 1st, 1932, the value of shares in the New York Stock Exchange fell by \$74 billion only—from a total of \$90 billion to \$16 billion. Granting that the purchasing power of the dollar was many times higher and the volume of stocks much smaller in the 1920s, the crash then was less abrupt. The loss of market economy wealth worldwide in the month of October 1987 alone is estimated at \$2 trillion—about the equivalent of the national debt of the largest debtor nation in the world today, the US.

Donald R. Regan, formerly Treasury Secretary and Chief of Staff of President Ronald Reagan, in a Washington Post article (25th October, 1987) entitled "No More Business as Usual", warned that the so-called "economic recovery" of the last 5 years is now in jeopardy. In this article Donald Regan does not acknowledge his own share of responsibility in initiating the policies that led to the present crash. But Donald Regan recognised seven factors that have led to the recent stock market crash—

- (a) Deficit budgeting in the US
- (b) Unfavorable trade balance for the US
- (c) Proposed trade tax bill that would adversely affect US traders

- (d) Non-productive expenditures like excessive military spending
- (e) The Federal Government's fiscal policy of tight money and high interest rates
- (f) Unreliability and instability of dollar as international and national currency
- (g) Talks about increasing budget deficit, rather than reducing it.

It is clear now that Reaganomics, which artificially and temporarily boosted the markets through heavy military expenditure and by greater export of arms to other countries, was a colossal failure in solving the problems of capitalism. In fact it has turned out to be a disaster.

What happened to the global economy during the 1970s, when we were close to an East-West detente, can now lead us to global catastrophe, unless we take some resolute actions.

There was a measure of military-strategic parity between the US and the USSR in the early 1970s. It was at that time that both the Treaty on the Limitation of ABM systems (May 26, 1972) and the SALT-1 agreement were signed (1972). The Conference on Security and Cooperation in Europe could have led to remarkable progress in detente, if all the three baskets of the Helsinki Agreement could have been implemented.

The vested interests of the market economy world were frightened by the possibility of a real detente, a freeze in nuclear weapons, and a reduction of arms manufacture and trade. The market economy world had by that time invested a great deal of money in arms production. Western economies especially were heavily militarized, giving comparatively less attention to civilian production and to research on genuine human needs like health, education, culture, shelter, pollution control, and eco-balance. Something similar was also happening in the Soviet Union, where the pressures on military spending and research acted as a constraint on raising the standards of civilian consumption and existence. If the detente had actually progressed, the people of the Soviet Union stood to gain directly. Since all military and civilian production in that country are centrally planned and implemented, it would have been comparatively easier for the military sector of the Soviet economy to be converted to civilian use.



In the market economy world on the other hand, the bulk of military-related production was in private hands, though military production had created a large public sector in capitalist countries (one of the many contradictions of capitalism). Another factor was the growing conflict between the US and West-European capitalist interests. The US share of world capitalist output stood at 55.8 percent in 1948. It dwindled to 40.4 percent by 1970. Meanwhile Western Europe's share rose to 34.3 percent, coming close to the US share by 1970. Today Europe (East and West) accounts for 55 percent of world industrial output, according to 1985 figures. Much of this was military production, and a large share of it was in private hands. An East-West détente was perceived to be inimical to the interests of the market economy industrial barons, and they developed a strategy, in cooperation with the military structures, to undermine the detente. NATO deployment of Pershing-II missiles and ground-based cruise missiles was a major step in this strategy of undermining the detente.

What changed the whole picture was the influx of petro-dollars into the Western economy. The Arab strategy to use an increase in oil prices as a pressure tactic on the West to force it to settle the Middle East problem actually back-fired. While increased oil prices created a considerable strain on the Western industrial system, it was more than compensated by Arab beneficiaries ploughing back most of the money into the Western economy, through investments, purchase of expensive weapons, and an inordinate rise in Arab tourism in the West.

This actually played into the hands of the military-industrial complex. The West had more money to invest in arms production, and the market was readily provided by a few Arab nations. Liquid cash was still bulging the pockets of western banks, and they persuaded other two-third world nations to take easy loans and spend it on buying military and civilian goods from the western industrial-military system. Two-third world debt thus arose from \$90 billion in 1971 to \$274 billion by 1977. By the 1980s about \$100 billion was being paid out every year by the poor nations to the rich nations by way of debt service including interest.

The petrodollars did a double damage to the developing countries—

- (a) it led to accelerated militarization the Third World, artificially boosting the market economy; and
- (b) it dragged many countries into a Shylockian deadlock where the debt burden became a new way of sucking the poor countries' wealth into the rich countries of the market economy world.

Another factor which helped the capitalist economy to go on for some time was the regional wars in the two-third world, principally the Iraq-Iran war, the Middle East conflict, the military equipping of Pakistan and the Afghan Mujahiddeen, the Central American conflicts, the Malvinas war between Britain and Argentina, and the Southern Africa conflicts. The Iraq-Iran war, to which more than 35 nations seem to have contributed or sold weapons, alone cost \$500 billion, most of which went to boost military production and military trade in the market economy world.

But all these temporary and artificial means of bolstering up capitalism have now been demonstrated to be ineffective in rescuing capitalism from collapse.

We can say that while the October 19th crash does not immediately lead to a world-wide depression, it must at least lead to the insight that the military expenditures, which are non-productive, cannot indefinitely bolster up the market economy world. The market economy world will have to think in terms of better solutions than military manufactures and military trade to increase its stability and capacity to sustain itself. It also has another consequence which we are still reluctant to recognise: namely, military solutions to world problems cannot be final. Let me cite to you some statements made. One such statement from the "US News and World Report". In 1950, this Journal said: "Business will not go to pot so long as war is a threat." That is, business depends on the threat of war remaining in the world. So long as new wars can be created, the economy is safe. That's what the journal said 37 years ago. It's a fantastic way of thinking to assume that the Cold War was the best way to bolster up the economy. It was not simply the "US News and World Report" which said that. A very liberal friend of mine, Jerome Wiesner, the President of MIT, made a similar statement. He is not a rightist; he was scientific advisor to Kennedy and Johnson. He said, "the armaments industry has provided a sort of automatic stabilizer for

the whole economy, for the American economy". A more left oriented man, Herbert Gintis wrote in the "Review of Radical Political Economics", "The military industrial complex has eliminated the sector of secular stagnation". Stagnation in the market economy was avoided by the military industrial complex. This was stated even by a leftist. We are now moving beyond that stage. We are coming to a new stage where we can no longer prop up the economy by military expenditures. That is the lesson which comes from the October 19 crash. I would say that the crash is one of the healthiest things that has happened to us recently.

### **The developments in global science/technology**

On the third issue I must say two things very briefly. I could say many more things about new developments in world science and technology. Here I will illustrate, by mentioning only two new developments, leaving aside others like information technology, technology as a commodity, new supercomputer technology and so on.

One of the most frightening developments in global science/technology is the division of the scientific community into two parts. In the world scientific community, researchers and technologists are now engaged in serving the military industrial complex. The scientific development of defence production is becoming more and more of a secret business and these scientists are sworn to a kind of secrecy. They are not supposed to share their scientific knowledge with their colleagues. This is something new in science. Science has always been regarded as public knowledge, which can be shared, discussed, disputed, experimented, tried wherever necessary. This is no longer the case. Military knowledge is becoming more and more a secret property and in the scientific community there is a new polarization. A large number of scientists are now opposing nuclear and other military developments in science and technology. A large number of scientists are saying that we must liberate science and technology from its captivity to the military-industrial complex and redeploy it to solve the problems of humanity as a whole. That number of scientists—thank God—is increasing constantly. At the same time, a large number of scientists are being clubbed together into a scientific secret pact. They do not want to look at the moral issues at all. They are concerned only about the higher salaries and

better facilities for their research work which the ordinary academy or university cannot provide but which the military industry provides. This polarization is one major development in the global scientific community which we have to watch. I would also like to say that within that military-scientific community the focus is on directed energy weapons, that is laser beams, particle beams and other directed energy weapons with complex electronic guidance systems. This is the new secret knowledge that they are building up. We have to worry about this development of new weapons. We should demand that these scientists be accountable to the public about what they are doing and not pledged to this kind of immoral secrecy. They must be accountable not only to the total scientific community but also to the common public. That is the demand that the peace movements have to make.

There is another development that I am not even competent to discuss adequately. I will just mention it. This is the development in super-conductivity. This is a major breakthrough which has happened this year. We have been researching to find a conducting medium without any resistance at normal temperature. All the previously known conducting mediums which have no resistance can be so only at extremely low temperature, which are very expensive to maintain. We can now get synthetic ceramics which can conduct electricity without any loss, without creating heat or resistance in the conducting medium. This can have many positive consequences, but it can also have one negative consequence. That is fusion technology, which has been at a standstill for some time, making a few occasional jumps. Fusion of atoms is dependent on a medium which can contain the very high heat produced by fusion without melting itself. Scientists have been trying to build a plasma case which will contain the excessive heat produced by fusion. Now superconductivity produces the possibility that there may be solid containers for this high fusion temperature. We are not there yet, but the break-through made this year in superconductivity can lead to the possibility of solid containers for high temperatures produced by fusion. This can be exceedingly problematic for us. It has some positive effects. It makes the magnetic cushion effect easier and more economic—for example, hovercraft which sail on a magnetic cushion. It can also make it possible to develop huge multikilometre long particle accelerators. The accelerator in Geneva at CERN is

many kilometres long and it is already underground. Now with the new fusion technology, with the new superconductivity technology, we can create huge particle accelerators with which we can experiment and research about thermonuclear fusion, and there is a big danger in that. It can also help in space travel, because loss-free energy accumulators can now be created. This means that space travel may be made easier by this new discovery.

Well, what I am saying is that there are new discoveries, and like all discoveries in science they are capable of positive and negative results, but we as the public have a responsibility to watch these things. That is the first thing I wanted to say.

### New thinking

Now, finally, I come to the point which is probably the easiest, to do and about which most of you already know more than I do. I will still try to look at this new thinking and the concept of socialist reconstruction. I don't want to describe *perestroika* and *glasnost* technically. I have been trying, however, to look at the literature arising on the subject in various parts of the socialist world. I see the following five points in this new thinking. The most important first point apart from the radically humanist moral framework, is the expansion of democracy and self-management. That is the major primary element that is being stressed in the practical aspect of this new thinking. It is actually an old idea in Marxism, but it had been suppressed in favour of a heavily centralised economy, and administration. This has been the norm within socialism for some time, which is a violation of an original affirmation of Marx. Now they are coming back to this intrinsic principle of Marxism in order to create local self-government, local responsibility within the economic production units, and a certain amount of pluralism within the economic and political structure. That's the first idea, self-administration; it almost reminds one of the French idea of the late 1960s of "*autogestion*", which is also a Marxist idea which the French leftists picked up in the 1960s, but is now being dusted and brought back by official socialism itself. It is a very interesting development which has many possibilities for the future development of socialism.

Second, the idea that the assets of the economic unit belong to the people has so far been only in text books. It has not always

been realised. People even in the socialist countries have never felt that "this factory belongs to us". A new law has been passed by the Soviet parliament in June 1987 which says that the assets of an economic unit belong to its personnel or workers. That's the new law, that the workers own the factory. I don't know what this really means. There have been a number of surveys made by Pravda to see to what extent this is becoming real. Izvestia had made another survey of the workers in several factories and they discovered that 85 percent of those polled stated that the workers are not yet in control. That survey has been published within the Soviet Union itself. The Izvestia study shows that even though the law is passed by the Soviet government, its implementation has not proceeded very far. The open publication of this survey by Izvestia is itself a very new development. These facts are now openly available to the public. This is already something. They are saying that public property does not mean that it is a no-man's-land, but that the workers are co-owners, therefore, directly responsible for the performance of the local economic unit. To what extent that will become real, I do not know.

The third element, which is interesting to me is a new motto which reminds me of the old capitalist motto which said "what is good for General Motors is good for America". There is a new version of that in the socialist countries, which says "what is good for the people is good for socialism". This is a very interesting motto. It means that issues need *not* be handled on an ideologically dogmatic basis, trying to force a kind of class analysis on every phenomenon; but authorities have to see that what is good for the people in each particular situation is ultimately good for socialism. This is a bold new step away from the ideological dogmatic sterility, and I think this is a very important attempt to implement Lenin's dictum that socialism is not simply a system of centralized control, but "given social ownership of the means of production" it is "the system of civilized co-operators" (V. I. Lenin, *On Co-operation*, in *Selected Works*, Vol. 3, Moscow 1971, p. 763).

Fourth, the role of the market is now recognised but not in an absolute way, as if the market can look after itself. The market goes with central planning and control. Along with central planning and controlling the market can also function, which means the assessment of the market forces is not totally negative anymore. You have to

take the reality of market forces and take that into account in your planning and regulating the economy. Again it is a very interesting assessment of the dialectic between central planning and market forces. It is a bold new step. The new perestroika also wants to emphasise that the social guarantees to the people can never be revoked. Whatever reconstruction you do, the socialist guarantees to the people cannot be revoked. The social guarantees of employment, housing, old-age pension, education, health, etc. cannot be revoked, but they also say that this should not lead to parasitism. Sometimes the social guarantees lead to parasitism, people living on the economy without producing anything. That can no longer be accepted.

Fifth, the four points of Lenin are now being re-emphasised. The four main points in Lenin's vision are (a) farming cooperatives, (b) fast industrialization, (c) cultural revolution, *i.e.*, new cultural forces being constantly generated without which the human factor cannot operate effectively, and (d) ethnic harmony. These four principles of Lenin are being re-emphasised in the new revolution, in the new reconstruction. But as I said, these reforms are not yet 100 percent successful. *Izvestia* which sells 8 million copies made a sample survey of its readers, and 85 percent of those who responded to the poll said that formation and red tape are still evident in the economy. Another survey reveals that only 25 percent agree that there is some improvement in the bureaucracy while 75 percent still think there is no improvement in the bureaucratic weight of the economy. Another survey, more positive, says that 63 percent of those polled believe that there is more *glasnost*, more openness in discussion, and in corporate tackling of problems within the economic unit. But still only 33 percent believe that ordinary workers are taking a larger role in management. These are interesting figures which are now published for general discussion.

I want to conclude by saying that in this vision which is behind socialist reconstruction now, there are two basic insights. One is the vision of a new world—a new world in which people of different ideologies can live together, and cooperate without having adversary relations. This vision has to be regenerated and fostered because it underlies everything. Tomorrow we won't have a world where all nations are socialist. In the world of tomorrow, it is now generally accepted, we will have socialist nations as well as market

economy nations. But people with different ideologies and economic systems must learn to live together in that world and not wait until everybody becomes socialist, to have that peaceful world. The peaceful world must come now, and whatever antagonistic and negative images socialism may have had in the past, it must now receive a more humanist image and reality; and that, I think, is the central vision of perestroika.

The second aspect of that vision is one which should make us all rejoice. It is the aspect of *glasnost* or openness. Openness means that truth must be faced and not covered up. This has again two faces—one that of correctly understanding and recognising the present in terms of a clear and unambiguous assessment of the past which has led to the present. This means recognising the past mistakes of socialism and making amends. There is no doubt that personality cult, arbitrary authority, and cruelty and deceit in dealing with fellow-human beings were failures of the Stalinist period. These should not only be acknowledged, but also be purged from socialist practice. The second face is open creative discussion of all problems among the people, and also between authorities and peoples, among workers and managers in an economic production unit, amongst nationalities in the Soviet Union, among artists, intellectuals and the people—at all levels. This means that socialism is achieving a new maturity. This *glasnost* will have to be responsibly exercised by a mature people. If anyone misuses this openness for personal ambition and careerism, such persons will have to be reprimanded and restrained.

## Conclusion

I have touched upon four significant trends in the global situation. I have not tried to give a comprehensive picture, but only to point to some. The four trends I have touched upon lead to some clear conclusions.

- (a) Nuclear disarmament, with a comprehensive test ban treaty, a freeze, and total elimination of all nuclear weapons by all nations with a ban on research and development of new weapons remains a first priority.
- (b) The development of global common security through international trust and co-operation, without resort to weapons



and with full attention given to economic and cultural insecurity of the majority of the world's people should receive more attention from peace movements.

- (c) The one world which we are to build is inescapably one of cultural, ideological and social plurality; in it science/technology has to be liberated from its present bondage to war and profit; science/technology should not only be responsible to the people, but must be re-oriented to serve the genuine interests and cultural creativity of different peoples in their own ways. The religions of the world have to be taken seriously by Socialism, since 80 percent of the world population have varying degrees of adherence to various religions. The religions on the other hand should abandon their uninformed anti-communist stand and should both take socialism seriously, and help in creatively evolving a new moral order in a pluralistic world acceptable to religionists and secularists.
- (d) The new thinking and new reconstruction in socialist countries should be welcomed by all peace forces, not only because they can lead us to relaxation, and to peace, but also because it can lead us to the vision of a new world where all of us can live together in freedom and dignity in just and peaceful societies.

**W**hat was once a myth, a fairy tale, of being able to traverse the universe, in space shuttles—has now become a reality—reference, the space shuttle Voyager, now in space together with astronauts, learning more about the universe—but for peaceful purposes.

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