1. **What are these suggestions about?**

   The history of humanity has almost reached the year 2000, two thousand years after Christ’s birth. Less than ten years from now the gateway to the *Third Millennium* will open to admit that moment’s humanity, among whom I hope will be all my children, grandchildren and great-grandchildren. My suggestions are meant to encourage all these younger people to meet the challenges of the Third Millennium with positive plans.

   That I shall be with them is not very likely. But, as so many of my contemporaries, and as a scientist, I have given quite some thought to that last year of the Second Millennium. I have tried to give some structure to what I could offer, as a message, to those who will pass the gateway. Because this is a message from one single person, it is bound to be onesided. It should be looked upon as a *supplement* to messages from others, especially from people with practical experience. This author has no business or political experience; his message is a scientist’s advice. Now a scientist’s task is to think; to think about the structure of the subject he has studied. As I am an economist, my task has been to think about economic structures, now, in the past, and in the future. Scientists are also committed to look ahead. That is useful, because *most human beings tend to be shortsighted*, which may have disastrous consequences.

2. **Our life as individuals surrounded by the world**

   Around each of us is the world: the dead world and the living world. The dead world consists of once living beings who have just died and left us in sorrow. But many more are those who left us longer ago, and an even greater part of the world consists of things that have never lived: the mountains in Switzerland, the flat landscape of my country, the river that Switzerland sends us, and the seas and oceans, always moving, but not living.

   The living world consists of a great many other human beings, a great many animals and a great many plants. There are at present
present over four thousand million human beings living on this earth. In my country there are almost as many pigs and six times as many chickens as there are people. But the flies and the birds haven’t been counted . . .

There are many kinds of relations among animals, many of them very cruel: animals eat other animals, or fight with one another for the same prey. Human beings are no exception: they breed animals and then eat them; their way is just a little more civilised. Vegetarians, now, they are really civilised.

The forms and colours of animals offer many surprises: some pleasant, others frightening; varying from ants to elephants, from snakes to crocodiles, from whales to eagles, and so on.

Not moving yet living are plants and trees. Plants get eaten as well, but we don’t know whether they suffer. Because they don’t cry, we think they don’t feel our cooking and eating them. Trees are useful in other ways: they supply us with timber and transform carbon dioxide into oxygen.

All those living and non-living things around us together form what is nowadays called the environment - sometimes impressive and beautiful, sometimes threatening, like deserts or the endless oceans covering more than half the earth’s surface. The environment is the stage on which the epos of human society is performed.

For many centuries, we have profited from the environment and from the natural, automatic absorption and neutralisation of polluting matter. However, humanity has become so numerous and invented so many machines and chemicals as to have become a danger to the environment, and so, indirectly, to ourselves. Our automobiles are polluting the atmosphere; our increasing consumption is forcing us to fish more than we should if our children are still to have the stock of fish or whales they need to survive; our rivers contain chemicals that kill river fish; and so on and so forth. We are sawing off the branch of the tree we sit on.
Since 1972, when we met in Stockholm on a Swedish initiative to discuss environmental problems, a United Nations Environment Programme (UNEP) has functioned in Nairobi (Kenya). Scientists are studying ways to maintain the size and quality of the environment; to avoid killing the forests; to stop polluting the air, the soil and the oceans, rivers and lakes. Already there are plans to reform and strengthen UNEP so that its resolutions will not remain mere recommendations but become policy decisions, to be carried out by governments on pain of sanctions.

Below (in sections 9 and 10) we shall see what other serious dangers are threatening the life of future generations.

3. Our life as members of a family

As individuals, we are not facing the environment on our own. We are members of a family. Depending on our age we play different roles in the family to which we belong. Let us consider human beings according to their age.

As babies we are first of all protected, fed and surrounded with care by our mother. Soon father joins in, and both parents start the process of education. In many families the mother runs the household while the father goes out to earn the money needed. In view of the capabilities and preferences of either parent, they may switch their activities under joint responsibility. If there are older brothers and sisters, they participate in the process.

After some years, the education process is widened to the surroundings and the school. Harmonious cooperation is desirable, of course. As we advance in age, the contribution of schools, friends, and society at large to our education extends, and our own experiences come in as well. The type of school will vary with the youngsters’ innate capabilities, and so does the moment they start looking for a job. That important moment comes much earlier to the less gifted than to gifted youngsters. Another important process of
biological maturity determines when interest for the other sex awakes and the desire develops to leave the family and start one's own with a partner of the other sex (in some cases a partner of the same sex).

Married couples share responsibility for the family's welfare. Their aim is to be happy and bring happiness to their children. To that end, parents first have to find out what each child's innate capabilities are. Next comes the choice of a future job that suits those capabilities best. Some young people will be happiest as artists, others as scientists. Many will prefer some handicraft. Some will be happiest in the open air, others in a building that protects them against nature's vagaries. A type of school must be chosen to match the preferred job.

Other elements of education do not depend on the envisaged job, but are general qualities desired for all, such as honesty, reliability, or interest in other persons' happiness. In that respect the example of the parents is of great importance. The general atmosphere in a family depends on their religious orientation or 'Weltanschauung', but also simply on the parents' personalities. Many are good, others not-so-good or frankly bad educators. Apart from the parents' abilities, the teachers' personalities may exert a strong influence on their pupils. Generally, the function of parents and teachers is to 'pass on human knowledge and civilisation to the next generations'.

The different abilities of human beings have important consequences for their happiness. The cruelty of nature's physical aspects is reflected in its mental and spiritual aspects. Gifted individuals often derive great happiness from their jobs, while less gifted ones experience their work as a burden. That form of injustice, and other aspects, will be taken up in sections 4 and following.

Another injustice of societal traditions is, or was until recently, that women who would have loved a family remained single. They may have derived satisfaction from their work, and enjoyed art in museums, but because girls are, or were, not supposed to take the initiative to marry, they must forego the happiness that a family can give. 'It's not done', was the general view. But customs are changing...
4. Life in human society

Human society consists of a large number of men and women of all ages. The youngest and some of the oldest are 'protected against the hardships of society' by the family in which they live. Those active in society are consumers and producers; their position will be discussed in sections 5 and 6. The present section considers some more general aspects of human society.

Consumers enter society as individuals; they buy things in shops, take out money from banks or post offices, travel, and so on. They are loosely organised in consumer unions, which provide them with information and exert pressure on producers, governments and shops when they feel it is useful to consumers.

Producers may also act as individuals, running a shop or practising a craft, repairing household tools, wash clothes, etc. But in modern society the most important producers are organised in powerful institutions.

A distinction may be made between free and imposed institutions. By imposed institutions I understand those you belong to naturally or from obligation. You are a member of the municipality where you live, and you have to go to school as soon as you have reached a certain age. Not going to school is punished. Not paying taxes to the municipality – or the national government – can land you in jail. Examples of free institutions are sporting and music clubs, and schools falling outside the compulsory schooling period.

In their most active period, from age fifteen to sixty-five, almost all men and many women have a job, which means that they have accepted to fulfil the tasks described in an employment contract. To do our job well is an important task, claiming a large portion of our energy, understanding, and intuition. Evidently, that applies more to difficult than to easier jobs. Managers probably have the most difficult position, where many problems have to be solved or even discovered for the first time. Problems with people first of all, but also technical, organisational and informational ones. As the
well-being of a large number of families is at stake, managers need a strong sense of responsibility. To attain the aim — to make the firm flourish — a whole array of features are needed: intellect, creativeness, persuasiveness, and adaptability, to mention but a few. Only a few people possess the whole combination. What is also needed is a ‘helicopter view’ — the opposite of shortsightedness. Shortsightedness is a drag in all jobs, but worst of all in important functions. A good manager must be able to harmonise and integrate the diverging and opposed interests of his collaborators.

However important these characteristics of ‘captains of industry’ are, we — and they — must not underestimate the requirements for the simpler jobs. Such underestimation could jeopardise the cooperation needed. One way to avoid it is to recruit managers from the people who started out at a simple job and have gradually risen in the hierarchy.

Unlike consumers, producers, and in particular skilled workers, are strongly organised. Well aware of their dependent position, they created trade unions as a counterweight. Employers responded by in turn organising themselves in employers’ associations. Trade unions, begun as local bodies, are now cooperating on the national and even the world level, keeping closely in touch with political parties. The first socialist parties were created in the last part of the nineteenth century. Their opponents were the existing conservative and liberal parties. A role of reconciliation was played by Christian parties, and confirmed by the Encyclical ‘Rerum Novarum’ (On new things) emitted by Pope Leo XIII in 1891.

One tool which trade unions use to exert pressure on employers are strikes, to which employers sometimes retaliate with lockouts.

Once the situation of the working class had been ‘discovered’, a series of social-security acts were passed by the parliaments of industrialised countries, prohibiting work by children, limiting work by women, limiting the working hours of all workers, insuring workers against occupational hazards, and so on. After World War I a further series of such measures were taken, including insurance
against employment and the costs of illness, and the regulation of voting rights. Labour conditions came to be agreed upon collectively by the central organisations of employees and employers. Thus, an increasingly complete social structure of human society was drawn up.

Workers, workers’ unions, and political parties have been strongly influenced by the ideas of Karl Marx and his friends. Marx’s main contribution to history and sociology has been the concept of consecutive changes in the social order, with power shifting from one group in society to another. Medieval society was a feudal order with landowners as the leading class. It was followed by capitalism, in which capital-owners and managers were most powerful. Marx’s prognosis was that at some time in the future the working class, or proletariat, would take over power and create a classless society, with much more relative prosperity for workers.

As the socialists rose in number and power, discussions on the policy to follow intensified, and different opinions evolved. A split of the labour movement into a more radical and a more moderate wing ensued, and around 1910 there were in most countries two socialist parties, one radical, the other more moderate. The radical party called themselves communists, the moderates were known as social-democrats. The communist parties were in favour of a revolution followed by a dictatorship of the proletariat. In Russia two revolutions took place in 1917: in the February revolution the social-democrats took over from the Tsarist government, and in October the communists under Lenin seized power and created the Soviet Union with a dictatorial government. Their aim was to introduce their type of government everywhere, starting with the countries under their control in Eastern Europe. In some other countries outside Europe, communist governments also took over, notably China (the People’s Republic of -), Cuba, and some African states.

By its adherence to violent change, the Soviet Union divided the world into two blocs, and started an armament race. This race became terribly dangerous as around the same time nuclear power
had been discovered, and used by the United States to bomb two Japanese cities: Hiroshima and Nagasaki. For a long time the world lived in great suspense, negotiating in vain on armament reduction, until in 1985 Mikhail Gorbachev became secretary general of the Communist Party of the Soviet Union.

The American economist Abram Bergson had shown that the productivity of the Soviet economic system was about one third less than the American and West-European systems. The implication was that the Soviet military forces were far less efficient, and the Soviet consumption level much lower than West-European standards. So, Mr Gorbachev argued that instead of threatening the West, the Soviet Union would do better to copy the Western ‘market system’, restructuring its own system on the base of maximum information.

After more than seventy years of rigid central planning, this courageous deviation from traditional ideology brought about a tremendous détente and opened much problems, which I shall discuss in sections 8, 9 and 10, but an enormous amount of pressure has been eliminated.

5. Life as a consumer

Human life has many aspects, each of which is the object of one or more sciences. Health is a matter of medical science, religion a matter of theology, spiritual problems can be dealt with by psychology, learning by pedagogics, and so on, and so forth. This author, being an economist, is interested in people’s attitudes and activities as consumers and producers. In a sense everybody is, or must be, economists to their own households.

The present section discusses consumption as a human activity. The purpose of consumption is to satisfy human needs, which are many and manifold. We can group them as physical and mental or spiritual needs. To begin with the physical needs: we want to protect
ourselves against the vagaries of the weather by living in a house, and wearing clothes. We need food and drink; we want to wash and stay clean. To go on with mental or spiritual needs: we are fond of music and other forms of art, so we visit concerts and museums or look at television. We want or have to learn; we want information; so we again call upon the television to help us, or read books, newspapers and weeklies. Many of the things we need can be bought in shops, which are plentiful and varied. But at home we butter our bread, prepare the dinner, wash the clothes, and so on. We also have holidays; some of us make long trips and see for ourselves what life is like in other countries.

Those are the things we can consume. But for a house, clothes, food, and everything else, we have to pay. And to do so, we must have an income. Our income sets a limit to what we can buy. The goods we buy carry a price tag. To get as much as possible for our money, we need to compare the prices various shopkeepers ask, and look for the best bargain.

How do we get our income? Most of us by working, that is, being a producer. We will come to that in section 6.

What I have briefly described above is consumption as it is practised now by people living in cities in developed countries. But remember it has not always been like that, nor is it so everywhere. When I was a schoolboy, television was unknown. In 1800 there were no trains; in 1900 aircrafts had not yet been developed. Going back in history we find ever greater differences with our own society. Paintings tell us about life as it was a few centuries ago. The people in the pictures wear different clothes from ours; tea and coffee were unknown but beer was the common drink. Their houses, some of which are still standing in our old city centres, lacked many of the comforts we are used to. But such magnificent buildings as the Gothic church of Ulm in Germany, or the churches of Canterbury in England and Reims in France still fill us with admiration. While these were built just a few centuries ago, archeology shows us remainders from much earlier times, human beings as well as pots, plates and
other household objects from thousands of years ago. Famous old books describe to us historical events and the ways of life long past.

Now moving in space, we find that farmers have different consumption patterns from city inhabitants. They need not go to shops for their own products. Consumption and production are practised at the same farm. Travelling farther, to developing countries, we find smaller shops and fewer goods. We see hungry people, some without a roof over their heads, some living in self-made dwellings of some description. The masses live on incomes far lower than those of our poor. A very few people in developing countries are rich; the ratios between the incomes of rich and poor people there are much higher than in our developed societies.

The social order in underdeveloped countries is harsh and cruel, and sometimes maintained by such traditions as the 'castes' in India or racial discrimination in South Africa. Although no longer legal, discriminating habits have not yet disappeared.

Back in the developed world, we observe that some consumers have organised themselves in a way by joining consumer unions, whose aim is to further consumer interests. They spread information about the quality of products, and discuss the possibility of eliminating poor-quality products from the market. Other consumers, while not members themselves, do read the weeklies or monthlies published by the unions.

Earlier on, groups of consumers wanting to get around shopkeepers’ unduly high prices, had created consumer cooperatives to buy goods at wholesale prices and sell them directly to their members. In fact they competed with the shopkeepers in efficient purchasing, sorting out and repackaging the goods and organising the shops. However, in the end they lost the competition; there are hardly any consumer cooperatives left. But cooperation with governments still continues and occasionally protects consumers.
6. Life as a producer

To satisfy the needs of consumers, consumer products and services have to be produced. That gives rise to another aspect of human life: production. Production is the heart of economic activity; it requires a variety of efforts and has given rise to huge institutions. To begin again close to home with present-day production in the cities of developed countries: typical are the large factories, large transportation systems, large government institutions. In the present section we shall describe these institutions in some detail, because they are important to mankind and have an essential part in attempts to safeguard human life in the Third Millennium.

Technology is all-important in production. The human race has displayed amazing imagination and creativity in factories, transportation systems, and today’s agriculture. A succession of inventions have enabled the managers of productive institutions to mechanise and organise the production processes and thus produce consumption goods cheaper than craftsmen can. More recently, information has been reshaped with the help of electronic devices. No doubt, further innovations will follow.

Present technology has raised consumption in developed countries to unhealthy levels. Another aspect of modern life is that the jobs to be fulfilled call for a wide variation of skills, rewarded by widely differing wages and salaries and requiring different schooling.

Manufacturing industry can be grouped in some 20 branches, within which companies cooperate to some degree. Textiles, leather products, food industries, metal working, chemical industries, are some of the more important sectors. They differ in capital intensity (quantity of capital per employee). Workers in capital-intensive activities tend to earn higher wages than workers in labour-intensive sectors.

The complicated nature of today’s production process calls for great care in the execution of productive tasks. A minor error in the construction of an aircraft or high-speed train engine may cause a
serious accident. Payment according to the quality of the work done may inspire workers to greater care.

Today’s social order, with its market systems, where individuals are free to choose their jobs, automatically leads to the distribution of jobs according to the innate capabilities and schooling of individuals. If a worker has received part of his training on the job, the employer will preferably keep his trainee permanently, lest a rival company profits from the training he has provided. To stay with one’s company is typical of the Japanese economy.

Production, like consumption, is regulated by the prices of the goods and services produced. A positive margin between the selling price and the cost of a good stimulates production; the quantity produced is in the end determined by the production capacity. The most successful producer is the one who lowers cost and raises capacity.

Now these characteristics apply in particular to today’s production in the cities of developed countries. Let us again move in time and space to look at the history of production and production outside the developed cities.

Technology, the core of production, has advanced rapidly. In the previous section we have given examples of things that are common items in our present consumption pattern but were unknown in previous centuries. Similar examples can be given for production. Electricity and oil have succeeded the steam engine, as driving force, which around 1800 had replaced animals and human beings. Think of the difference this has made to urban traffic.

From simple electricity our factories have now advanced to electronics and robots. Another rapid development has taken place in chemical production, where, for instance, plastics can be ordered to any specification of strength, elasticity, etc. And what about the development from wooden railway coaches to steel and aluminium ones. Plastics have been experimented with for that purpose as well.
The structures used for mechanisation display an unbelievable succession of ever more complicated forms. So far, human inventiveness has continually raised productivity. It may be exhausted some time, but so far, there has been no sign of deceleration.

Looking now at production in developing countries, we are at once struck by the riksha as a form of urban transportation with man as the moving power. Labour-intensive technology also prevails in innumerable other productive activities, for labour is cheap in underdeveloped countries. And while in developed countries the tractor has become quite normal for ploughing, farmers in the Third World are still employing animal power.

Producers far more than consumers are organised. Production itself, to begin with, is more organised than consumption. For one thing, the latter is an individual activity, whereas most production cannot proceed without cooperation. For another, the producing individual depends on productive activity for her or his well-being. Every consumer uses a variety of goods, but a producer often concentrates on just one or a few goods. The non-availability of, or lack of demand for, one particular good is but a partial problem to the consumer, but can endanger a producer’s entire existence.

Production is organised world-wide -by markets, in commodity agreements, etc.-, and international or multinational companies are powerful, on a level with governments.

Today, producers are faced with the problem of the environment, a matter of grave concern for an increasing number of people. Decisions will be made which inevitably put additional burdens on producers: another reason for them to organise themselves.

Employees, producers themselves, have equally strong reasons to get organised for the defence of their position, especially in terms of income. Organised employees and employers are, in fact if not always formally, powerful non-governmental governing bodies.
7. Life as a local citizen

In sections 5 and 6 we have considered the economic aspects of human life. Economic policy - the economic aspect of policy - makes a great impact on our welfare. Since economic science deals with overall human welfare, it is concerned with human life as a whole and not, as most other sciences, particular aspects of it. That is why humanity, to solve the great problems of the Third Millennium, depends strongly on economic policy.

Having surveyed the past and the present, in the remaining part of this booklet we will try to formulate the message promised in section 1.

Policy makers are placed in a hierarchy, with local representatives and local authorities at the lowest tier, and members of parliament, the senate and the national government occupying the highest tier of national policy making. In most countries there is an intermediate level, called by various names. In the United States of America it is the state level, in Canada, Belgium and the Netherlands the level of provinces, in Germany that of Länder, in Switzerland that of cantons, and so on. People interested in a political career often start at the lowest level, from which the voters and political life itself recruit the politicians for the higher levels. In the selection process 'the fittest will survive'.

Within the hierarchy, there is division of tasks among the local, state or province, and national authorities. The division of tasks should be governed by two principles:

(l) any decision to solve a problem should be made at the level representing all those whose welfare is at stake; and

(ii) the decision must be made at the lowest level admitted by (1), because that is democratic and at that level the problem is best known.

We shall call these two principles the theory of the optimum level of decision making.
A few examples may be illuminating. A non-polluting factory, which harms nobody, can be built in a city by consent of the city authorities. A polluting factory on the contrary, has an adverse effect on the atmosphere of surrounding cities and provinces as well, and therefore must not be decided on locally. To add one more traffic light to the local network does not harm any other city or province, and may be decided on autonomously by the city in question. But to change the meaning of the colours would cause confusion elsewhere and is therefore a matter to be decided at a higher level.

A general task of local authorities is to make the town an attractive place to live in. Small towns are mostly built around a central market with one or more churches crowned by a spire or tower. Many such towns were built in Europe during the Middle Ages, and abound in Italy, Germany, Flanders and Holland. In the twentieth century, active local authorities have improved their cities by building public baths and laying out playgrounds.

Most cities have grown and been modernised gradually, but recently some new cities have been built in a more planned way. Brazil and Pakistan built entirely new capitals, and in the Netherlands some planned towns were created in the new 'polders' of the former Zuyderzee. After wars or other disasters there have often been opportunities for such planned developments, which have not always been used to advantage.

Cities of some importance usually have several centres of culture: a music hall, a theatre, museums, a university, . . . .

8. Life as a national citizen

The national level of decision making is at present the most powerful. Higher levels are necessary but still rudimentary, and their nature and desirable tasks are still under discussion. We will discuss this, as a matter of the future, in section 9.
A citizen’s nationality is of great importance to her or him. As a rule, citizens of one nation speak the same language; they feel helpless when they cannot communicate with their environment. That explains the emotional character of national feelings.

There are exceptions. Switzerland has four languages, Belgium three. The Swiss are tolerant about their language differences, the Belgians less so. For a long time the Dutch speaking part (Flanders) was mainly composed of the socially lower classes, a recognised source of intolerance. But that is history now.

Abstractly formulated, the task of the national government is to promote and protect the nation’s welfare, a task it shares with the citizens and their private institutions. Many of these private institutions are of an economic nature, being concerned with business. But there are also religious, scientific, artistic and pedagogic institutions. In abstract terms again: the nation should strive for an optimum social order.

Government ministries and some institutions: the central bank, the railway system, the highway network, the school system, and the airport system, address more concrete targets. Originally the ministries’ only task was to assure internal and external security (Justice, Internal Affairs, Defence, External Affairs, and Finance). Later, Education and such productive activities as Agriculture, Industry, and Transportation were added. To cope with social problems (compare sections 5 and 6) a Ministry of Social Affairs was created to correct the income inequality ensuing from the market economy. Hence legislation to prohibit work by children, limit the average working hours of adults, pay compensations to victims of occupational accidents, sick workers, and old people. An impressive number of such laws have been passed by the parliaments of all developed countries, but there are considerable differences among them. In the World Labour Report of 1984, the International Labour Office showed figures on the redistribution of income attained by social legislation. The highest percentage of national income transferred from higher to lower incomes was recorded for Sweden: 29.9; the lowest figure (among the developed
countries) was 10 per cent, for Japan. For the United States the transfer amounted to 12.4 per cent. The figures registered for underdeveloped countries are much lower. Part of the discrepancy is due to differences in development, another part to political preferences. Sweden is well known for its advanced views, and the USA for its conservative attitude. Now that Eastern Europe needs advice, the question of the optimum rate of redistribution has become important. In section 9 we shall attempt to answer it.

The 'youngest' ministries are those for town and country planning and for the environment. They deal with the latest problems we are facing: the consequences of population increase and technological progress. The earth is becoming overcrowded and air, water and soil are polluted. World-wide biological diversity is threatened. We need to plan what territory to reserve for different uses: agriculture, transport, dwelling, industry, and recreation. And we need to cleanse our environment and keep it clean.

Ideas vary on the performance of these tasks. Political parties, representing various groups of population and responsible for social legislation, are now making up their minds about the new problems.

The need to defend the nation’s territory is as old as humanity. We have never been closer to external security than since Mikhail Gorbachev launched his revolutionary ideas. The utmost caution remains necessary, however, until the security problem has been really and truly solved.

Applying the theory of the optimum level of decision making, we find that in particular the problems discussed in the last few paragraphs cannot be solved by today’s highest ranking authorities: the national governments. So, we are compelled to look at the highest level now conceivable: the world level. As observed earlier: few attempts have been made, and still fewer succeeded, to create higher-than-national decision levels. In section 9 we take up that thread, trying to survey a wide space. Only to discover that we need to consider time as well. We must think beyond the present generation. Coming generations – hopefully an infinite number of
them – also have their human rights. Our concern must not stop at our great-grandchildren. For haven’t they the right to care for theirs? So, in section 10 we will study the duties of our generation. That accomplished, we are fully prepared to formulate our message to those about to enter the Third Millennium.

9. Life as a World Citizen

Our reconnaissance of the planet on which we live has shown that humanity has some great problems to solve, problems which cannot be solved by the highest authorities now in existence: national governments. The situation forces those feeling responsible for the future of humanity to regard themselves as world citizens. National societies have become so intertwined that we cannot restrict our thinking and political activity to a single country. Supranational thinking is necessary. Nor is it new. In Western Europe, we started to contemplate permanent cooperation soon after the end of World War II, mainly to be prepared against the threat of the Soviet Union, but also to raise our level of existence.

A contemplation of the world as a whole in 1991 reveals us that four grave problems need to be solved if we want a safe and prosperous life for all. To that end, a set of minimum conditions must be fulfilled. They are conditions of:

(I) security
(II) environment
(III) development and distribution, and
(IV) sustainability.

By ‘security’ I mean the elimination of war as a means to solve international conflicts. By ‘environment’ I understand the cleansing of our environment and the maintenance of a clean environment. By ‘development and distribution’ I mean the elimination of poverty in underdevelopment countries and in general. By ‘sustainability’ I understand maintenance of prosperity and well-being (including a clean environment) through time. Development can also be
interpreted as a better distribution of welfare across 'space' (the world), and sustainability as a better distribution of welfare through 'time' (later generations). The need for sustainability has only recently come to be understood, and will be discussed in section 10, the other three conditions in the present section.

The necessity of security is fundamental and clear. Unless wars are banned, we may be annihilated by a nuclear war, and all other efforts become senseless. To clean our environment is perhaps somewhat less urgent, but the lack of progress in the cleansing process rightly bothers an increasing number of people and governments. In developing countries too little is done, and in developed countries only a start has been made. The urgency of a faster development of backward countries may be illustrated by a figure: if the donor countries go on at the present rate of development assistance, to close the income gap will take more than five centuries. This is unacceptable, and the rising numbers of immigrants from poor countries into Western Europe and the USA show what we must anticipate if we do not step up the development assistance: we shall be flooded and our order might well be upset.

Having thus formulated in general terms the aims, let us discuss the means to solve the four great problems.

Security has been the number one objective of the United Nations and its predecessor the League of Nations. Now that the two great powers - the United States and the Soviet Union - agree that the United Nations should be the institution through which the security problem is to be solved, we will follow that choice. The next step is to specify which specialised agency is to undertake the solution of each major problem. But first we want to emphasise that agencies may have to be strengthened and reformed in ways to be detailed later on, and new ones created.

Security has to be assured by the Security Council, the International Court of Justice, and a new agency to be called World Police Force. This new agency is to be a permanent peace force of the type we have known so far only as ad hoc forces, such as the
United Nations Force in Cyprus, or the United Nations Interim Force in the Lebanon. The position of the agencies would be strengthened if countries could be forced, under penalty of sanctions, to accept their resolutions as lawful decisions. The sanctions could take the form of changed trade policies, or, in the case of persistence, police action. Agency reforms could take the form of a changed manner of voting in the Security Council.

Environmental policy should be taken care of by the United Nations Environment Programme (UNEP) and, if need be, by the Court and the Police Force. Strengthening here would mean that UNEP resolutions be changed into decisions.

Development policy is a matter for the World Bank Group, the International Monetary Fund (IMF), the United Nations Conference on Trade and Development (UNCTAD) and a re-established International Trade Organisation (ITO, as conceived in Havanna, 1947). Some development tasks are in the field of education, and may therefore fall to the United Nations Educational Scientific and Cultural Organisation (UNESCO).

The tasks of the specialised agencies mentioned above need financing, which itself may also have to be reformed. So far, each agency has seen to its own funding. A cheaper and more coordinated system of financing would be possible with the aid of a World Treasury, a body with a similar function as national treasuries.

Alongside agencies in charge of relations between the United Nations and member countries, others are dealing with the internal coordination of UN-bodies.

So much for the means to solve the great world problems. Now let us look at the quantitative aspects of the policies. We will take the quantity of development assistance to be made available by the developed to the underdeveloped nations as an example. Quantitative solutions for the other problems must be found mutatis mutandis. The development cooperation between poor and rich
countries is the analogue of efforts to solve the social problems besetting a single nation (compare section 8). In principle, the problem is one of optimality: how to maximise total welfare of the area considered (here the world). I think we must take the ratio of redistribution of incomes as the central yardstick of social policy, that is, the percentage of total income transferred from the high to the low incomes by social insurance and taxes. In section 8 some relevant figures were presented. Closer analysis shows that the final optimum ratio can be calculated, but that the annual contribution depends on the ' Impatience ' of the low-income recipients. If the low-income group is prepared to wait five hundred years, the present transfer of 0.35 per cent per annum is sufficient. If their patience stretches to 400 years -- twelve generations --, the annual transfer should be 8.1 per cent, more than twenty times the present rate. The most cautious conclusion I can draw from these figures is that more development assistance must be given. There is a modicum of understanding: the new international independent commission, chaired by the Swedish prime minister Carsson, is now discussing whether the norm for donor countries should not be raised from 0.7 per cent of gross national product (GNP) to 1 per cent.

The figures of redistribution within nations mentioned in section 8 show that in Sweden almost 30 per cent is transferred every year. That corresponds to a patience of Swedish workers and employees of about seven generations. As could be expected, a nation's own workers are far less patient than those of developing countries: Sweden contributes 0.7 per cent to underdeveloped nations.

The activities discussed so far and those recommended for the future are part of international political decision making. Alternative solutions are evaluated differently by political parties. Conservative parties like to keep things as they are; liberal parties are interested in changes. In Britain and the Netherlands, for example, the liberals were the ones who took the initiative to forbid the employment of children in factories. In Europe, the liberal parties have grown more conservative and now consist mostly of managers and intellectuals.
The social democrats are the politicians who have proposed most of the social-insurance acts. They are also the ones to derive their inspiration from an international network of parties and from a worldwide goal. The independent international committees which dealt with some of the major problems were often chaired by social democrats (W. Brandt, O. Palme, Mrs G. Harlem Brundtland, I. Carlsson). The social order they stand for is the one the East Europeans (and the world at large) need.

Mrs Brundtland’s Committee was the first to tackle the problem we will discuss now: the distribution of the natural resources of the earth among successive generations.

10 Life as a generation

So far, we have mainly discussed the problems of our world today. With the older among us we have talked about the future of their children, grandchildren, and even great-grandchildren. But do we think of their grandchildren? Do we think of the infinite number of generations that each new generation will want to live after we have gone? Some economists, Malthus for one, have wondered whether there would be enough food for them. Malthus warned, but suggested no solution, nor formulated policies to that end.

A solution is possible if the efficiency of world production continues increasing as it has so far, as we can show with a simplified model with some added features. Let us assume that world population remains constant, say at 5,000 million people, and that total annual consumption also remains constant at, say, 5,000 million kg. Assume further that in year 1, one kg of natural resources is needed to produce that one kg of product in year 1, but after one generation (some 33 years) only half a kg, after two generations $1/2 \times 1/2 = 1/4$ kg, after three generations $1/8$, and so on. How much of resources will then be needed for all future generations? The answer is:

$$5,000 \text{ million kg} \times (1 + 1/2 + 1/4 + 1/8 + 1/16 + ...) = 2 \times 5,000 \text{ million kg}$$
If there is a stock of 10,000 million kg of natural resources available at the beginning of year 1, an infinity of generations can live on it. The policies needed to make this happen are:

(i) to keep population constant;
(ii) to double the efficiency of production with each generation;
(iii) to take care that each generation uses no more than half the stock of natural resources it has inherited.

This model is not the only option. Should the population go on growing, then efficiency must grow faster and each generation must use up less than half the stock of natural resources. That is clearly a less desirable alternative, and therefore humanity must keep three things in mind: to remain creative enough to keep up the growth of efficiency; to remain aware of family planning, and to remain modest in the use of natural resources.

The fourth condition for human survival is the hardest to fulfil, because more than the other three it clashes with our innate shortsightedness. 'We will cross that bridge when we come to it' is the usual answer given to people who want to think of future generations now.

The time has come to formulate my suggestions to those who, at New Year 2001, will enter the Third Millennium. Before that moment arrives, they must have taken a stand and made up their minds what to do. They must have listened to political and business leaders and philosophers. In this booklet one of the latter offers his suggestions.

Our principal aim must be to help make humanity, that is all human beings, happier than they have been; in fact, as happy as possible. Happy in their family, and happy as members of society. Those of us who are parents or teachers must be keep in mind that they are models for their children and pupils.

Our aims must be to help fulfil the four great conditions: not to make war; to protect our environment; to raise welfare and distribute it fairly among people and countries; and finally, to distribute welfare better among our own and later generations.
The two ways of distribution must be based on a better understanding of society and on solidarity among nations as well as individuals.

What means have we to attain these aims? We ourselves can put in our bit, for instance by doing our work as well as possible, by being honest and behaving kindly to others in need of sympathy, or punishing those who misbehave; by not polluting the environment by our consumptive habits.

More powerful are the means available to organisations – from churches to political parties, including associations with goals related to ours. Both personal and organisational activities should be based on a sense of responsibility towards society.

One obvious contribution to peace has been and remains a positive attitude to European integration; another is a positive attitude to the United Nations. A less important but no less positive contribution is to spend part of our income on help for the victims of disasters or structural defects in society.

By far the most important task we have is to strengthen and reform the organisation of the United Nations. Its specialised agencies must be given power to impose policies on member nations. Reforms of two types are needed: changes in existing agencies, and new agencies. We made some suggestions in section 9.

Personally we can help by stimulating associations with congenial programmes to take an interest in the United Nations. Or we can join or create professional associations in favour of peace, of the kind pioneered by the International Physicians for the Prevention of Nuclear War, and taken up later by other professions, among which economists (Economists Against the Arms Race (ECAAR)).

Single companies can support environmental policy by adopting non- or less-polluting technologies.
We can contribute to fair distribution and development by the choice of the political party we vote for or are members of. To make the right choice we must seek information about party programmes and the initiatives taken by party representatives. To read newspapers and weeklies or monthlies is a must for business and political leadership. Scientific leadership has its own heavy responsibility: to remain creative. In the technological sciences, to serve the interests of future generations; in the social sciences, to give concrete shape to the optimum social order. The other sciences’ task is to serve as a base for the applied sciences.

Discussions will never stop; therefore, what has been suggested in this essay cannot be the last word; it is today’s point of view. In today’s situation, clarity about socialism is a central issue. Socialism is not dead. Dictatorship is dead. To go back to 'laissez-faire' would be an overreaction that could take us back to 1850. Democratic socialism is the optimum order if it can be applied the world over. The duty of democratic socialism is to show solidarity with the masses of the underdeveloped world and give it high priority. This is not naive, but long-term enlightened self-interest.