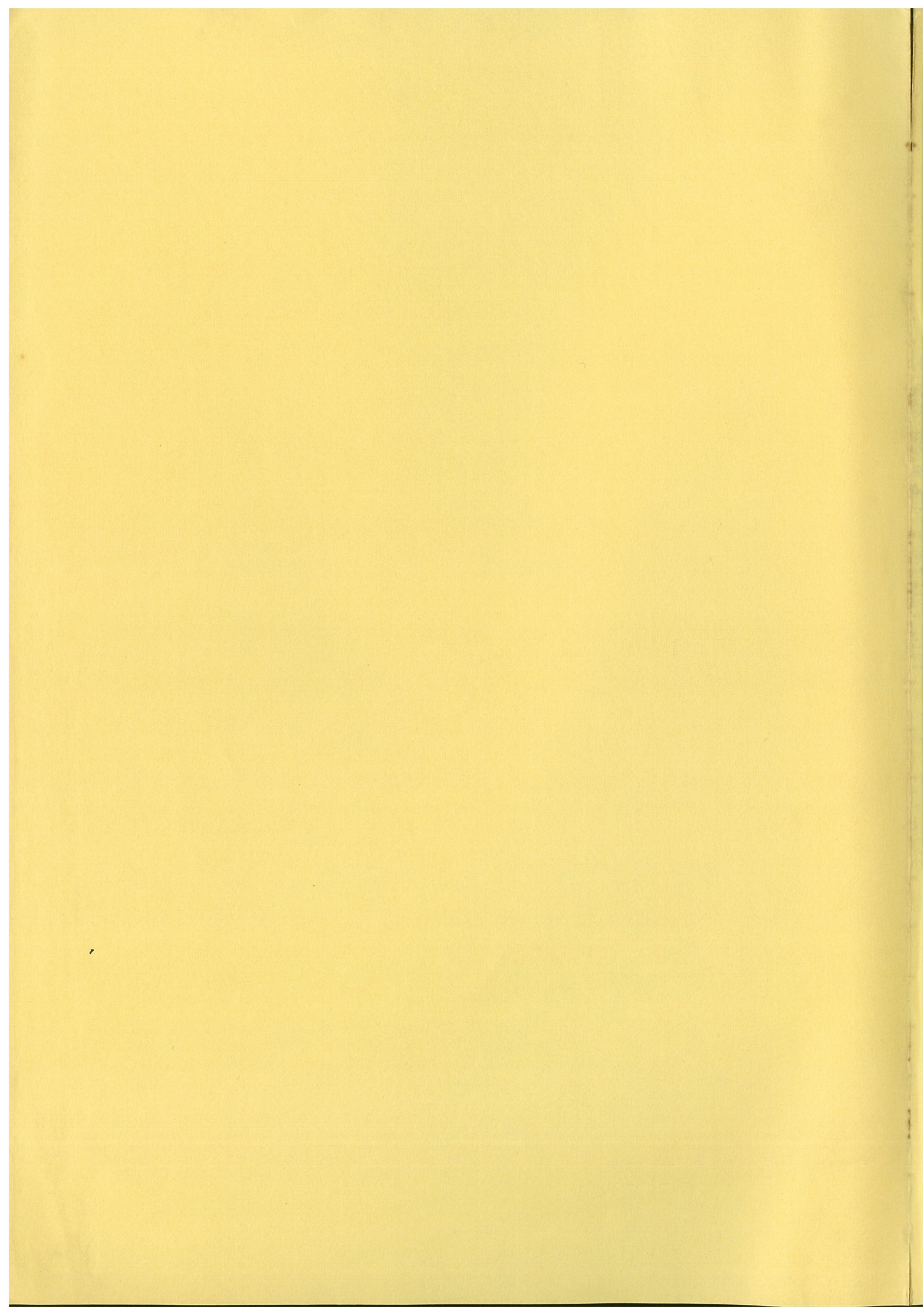


A CALL FROM HIBAKUSHA OF HIROSHIMA AND NAGASAKI

PROCEEDINGS

INTERNATIONAL SYMPOSIUM ON THE DAMAGE AND AFTER-EFFECTS OF THE ATOMIC BOMBING OF HIROSHIMA AND NAGASAKI

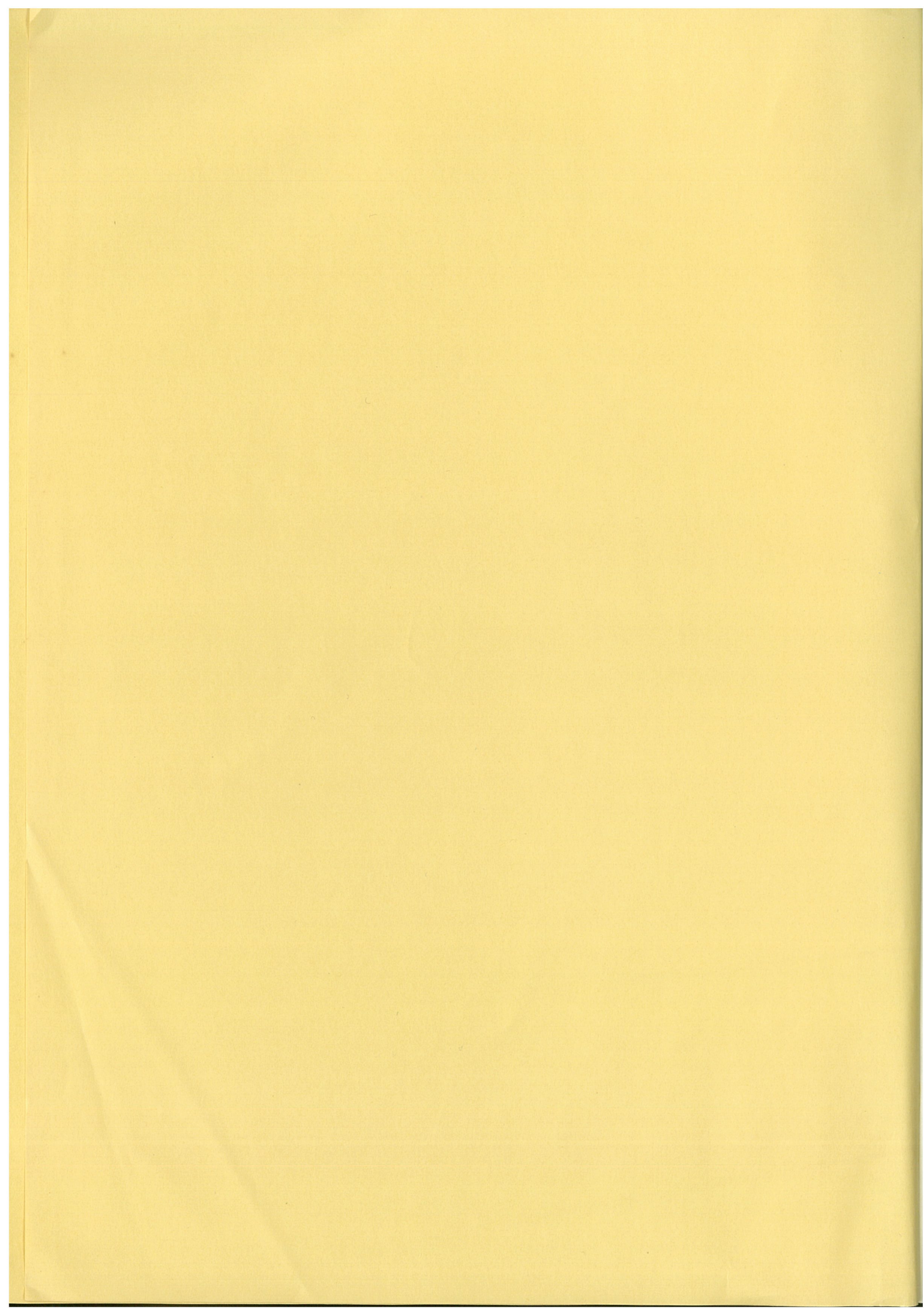
July 21—August 9, 1977
Tokyo, Hiroshima and Nagasaki



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July 24 - August 9, 1977
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Lord Philip Noel-Baker reads out the Declaration of the Symposium at the closing plenary session of Stage 2 held at Hiroshima-ken Ishi-Kaikan Hall on August 2, 1977.

DECLARATION OF THE SYMPOSIUM

Life or Oblivion

A Call from the Hibakusha of Hiroshima and Nagasaki to the Hibakusha of the World

Women and men, young people and children of the world, unite! You have nothing to lose but the chains that bind you to the increasing armaments and war. Unless you can break those chains, we may lose our jobs, our homes, our schools, our playgrounds, our lives, our culture, our civilizations, our world.

We are all survivors of the Hiroshima and Nagasaki Bombs. WE are all survivors of the Hiroshima and Nagasaki bombs. We also are Hibakusha, as the survivors of those cities call themselves. Although we did not experience the blast and the burns, we all carry in our bodies man-made radioactivity which would never have been there but for the nuclear explosions which have followed since 1945. Those bombs killed 300,000 people, women, men, young people, children, babies, animals, birds and fish—every form of life. They killed many more even of those gallant and desperate people who came to the cities afterwards looking for relatives or to give their help.

We survived those bombs, but we are threatened now by a million bombs more powerful than the bombs which destroyed Hiroshima and Nagasaki, as we are threatened by the prospect of neutron bombs, of cruise missiles and the development of more accurate strategic weapons.

Not only pacifists and idealists warn us of this mortal danger, but the leaders of the nations, Presidents and Prime Ministers, Ministers of Defense and military men. And more important is the solemn warning from scientists, some of whom helped to create the bombs and the missile systems that we are facing now. We are in danger of destroying our civilizations and even human life itself, the scientists warn us. If these weapons are ever used—and scientists tell us that there is an increasing probability that they will be used—if they are ever used, unless we can reverse the present trends, the Earth would become as barren and sterile as the moon.

Hibakusha of the world, we are all born free, but everywhere we are slaves to these monstrous preparations for a Third World War. We have now reached a stage of complete irrationality.

Militarists say that peaceful coexistence is an idle dream and that armaments are essential for the security and the greatness of the nation. They say that they are the realists of the world, who face the hard facts of life.

But, in fact, they are the prophets of illusion. The armaments they manufacture give no defense against the modern weapons. They give no greatness to the nation. They not only rob us of the national and cultural heritage, wherever we live, but they create the very insecurity which they are intended to dispel. They cause poverty, and social injustice everywhere. If we end the Arms Race, we can rebuild decaying cities, we can make the homes, the work, the schools, the hospitals that every nation needs. We can wipe out preventable disease. We can teach every person in the world to read and write, and open to them the world of culture. We can make life happy and noble for all people everywhere.

How can we end the arms race? And how can we achieve general and complete disarmament that we desire? We can do it by following the lead of the enlightened governments and especially of the Non-Aligned governments who recently declared that the long negotiations of the United Nations, which, whatever else they may have done, have failed to produce any significant disarmament. They declare, these Non-Aligned governments, that this failure has become increasingly intolerable—those are their words—increasingly intolerable and dangerous, and in response to our call for a World Disarmament Conference, they have succeeded at last in securing the summoning of the special session of the United Nations General Assembly on Disarmament next year.

If we drift on as we are drifting now, we may sleepwalk into the final catastrophe. Then the human race will perish, and no human voice will ever speak again.

But that need not happen; if the human voices of the people will speak now, if by the million and by the hundred million they will cry “an end to armaments and all the evil that comes with them. Let us give the resources of the world to human happiness and human welfare, not to death and devastation.”

If the people will so speak, if we will act with them, we must work hard to support the conference of world NGOs which is to meet in Geneva in February next year. If we do this, the governments will listen, and in the special session of the United Nations, they will start the process of the General and Complete Disarmament that all thinking women, men and young people so ardently desire.

The lessons of Hiroshima and Nagasaki may yet save mankind, if we are willing now to learn those lessons. If we learn them we must act without delay. Time is short.

Hibakusha of the world unite. We are the people of a glorious future yet to be.

Aug. 2, 1977

Foreword

Yasuo Miyake

Representative Director of the Japan National Preparatory
Committee for the ISDA

Chairman of the Editorial Committee of the
Japan National Preparatory Committee

The Symposium, of which these papers are the complete record, was the devoted work of a great number of people, from the voluntary activities of those who conducted surveys in practically every prefecture of Japan, of hibakusha (Japanese for A- and H-bomb victims) who gave their willing cooperation, and of dedicated workers at every level of organization. Among them is a prominent group of Japanese and international scientists of great experience and top academic qualifications in a wide range of natural and social sciences. And also support, help and advice were given by world bodies such as UNESCO, WHO and others of like authority as well as many prestigious international Non-Governmental Organizations.

The title, International Symposium on the Damage and After-Effects of the Atomic Bombing of

Hiroshima and Nagasaki, expresses only the basis of the aims and objects. The Symposium was held not merely to study these issues but to focus the attention of all the world on the issues that go far beyond the events themselves, viz., to open up the full implications of these tragedies which really amount to a massive crime against humanity, to find measures to ease the burden of suffering of the nearly 400,000 hibakusha, to see that such tragedies are never repeated anywhere in the world, and to take steps through the United Nations to end forever the threat of Nuclear Weapons to humanity by abolishing them by international agreement.

The Symposium was held in Tokyo, Hiroshima and Nagasaki covering the period July 21 to August 9, 1977. There were three stages: Stage 1 was in the form of an international investigation conducted



by experts of various specialties, Stage 2 was a Symposium of NGOs and research institutes, and Stage 3 consisted of rallies in Hiroshima and Nagasaki.

The title of these Proceedings was adopted from the Declaration of Stage 2, viz., "A Call from the Hibakusha of Hiroshima and Nagasaki." It embodies the spirit of the Symposium, that declared that hibakusha should be made an international word and find its way into every language of the world.

The main conclusions of the Symposium are included in the Report of Stage 2, adopted unanimously, and in particular the 14 recommendations therein. The recommendations, which are based on careful scientific analysis, indicate the enormous work that yet remains to be done by the international community of scientists, whose findings must then be used to maximum effect so that mankind can learn from the tragedies of Hiroshima and Nagasaki. These tragedies must never be repeated.

The reports are the result of the devoted work of Japanese scientists, plus the earnest and precise investigations of international experts who came to Japan for this purpose. Now we want these Proceedings to become the starting point for total scientific studies so that we may know the real significance of the bombing and the after-effects.

This book should reach national and international governmental administrative organizations, and all non-governmental organizations engaged in work for disarmament. It should go into all libraries, universities and research institutes.

In the Special Session of the United Nations General Assembly Devoted to Disarmament to be held in May-June 1978 we want these Proceedings to be used to further the cause of world peace.

We are deeply grateful for the work done by all the international and Japanese experts who provided the basic materials of the Symposium. Then too, there are the international organizations that sponsored, supported and encouraged this work; all the affiliates of the Japan National NGOs Co-sponsoring Committee for the Symposium, every Prefectural Promotion Committee for the Symposium, especially Hiroshima and Nagasaki Preparatory Committees and their organizational efforts—the mobilization of a great number of participants from all walks of life, raising funds and organizing voluntary support; the investigators who conducted hibakusha surveys, and hibakusha themselves who so willingly cooperated in this project—to all we express our deep and abiding gratitude.

Finally, as the Chairman of the Editorial Committee, I would like to express my deep gratitude to Tadashi Hayakawa, Naoyoshi Kamiya and Mrs. Junko Tokuzawa—staff members of Asahi Evening News—for their help and counsel. We would also like to thank Mr. and Mrs. Andrew Hughes for their dedication to this project in checking all the English papers translated from Japanese texts and typing these voluminous documents.

April 1978



Nagasaki in 1975, decided to send a delegation and a report to the Secretary-General of the United Nations, and this was done in the latter half of 1975. The reception which the message and the delegation received in New York was sympathetic, but it was clear that United Nations action was unlikely and in any case would take a considerable time to organize as it had a low place on the list of priorities. On February 7, 1976, after raising the matter on several occasions, the IPB and its affiliate succeeded in getting a resolution adopted by the Special Committee on Disarmament in Geneva, in the following terms:

The International Atomic Energy Agency (IAEA) has been in the forefront of the endeavour to 1974 it produced the landmark report for a World Disarmament Conference with Non-Governmental Participation and distributed these proposals in 1974 in about 14 languages since 1974. General and Complete Disarmament with priority given to nuclear disarmament has been the constant pre-occupation of the senior officers of the IPB since 1972 in 1975 and 1976 and became convinced of the validity of claims expressed by its Japanese-based affiliate that the damage and after-effects of the atomic bombing of Hiroshima and Nagasaki had been underestimated, and that the conditions of life of hibakusha (as A- and H-bomb victims are called) were deplorable and should be speedily improved. On this basis, IPB and its Japanese friends began to put together a strategy, believing that understanding of the horrendous effects of the two bombs (which are now compared with modern weapons) even 32 years afterwards is essential if the case for disarmament is to be communicated. The 21st World Conference Against A- and H-bombs meeting in Tokyo, Hiroshima and

Preface

Arthur Booth

Chairman of the International Preparatory Committee
and the Steering Committee for the Symposium (ISDA)

Not a day passes but highly placed international civil servants and government leaders tell us that the mobilisation of world public opinion is the key to nuclear disarmament, to any kind of disarmament, to general and complete disarmament, and indeed, to the ability of the United Nations to adhere to the ardent desire expressed in the Charter of the United Nations that succeeding generations should be saved from the scourge of war.

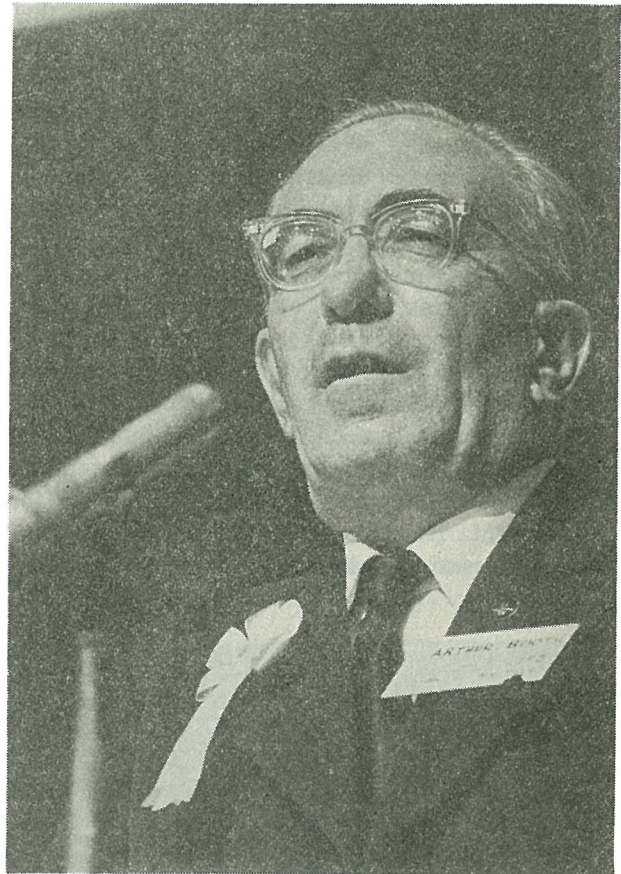
Non-Governmental Organizations (NGOs) of all kinds have taken this very much to heart and have acted upon it, in many cases much to the surprise of those highly placed citizens who exhorted them to do so. This applies especially to those NGOs who place disarmament high among their priorities.

The International Peace Bureau and its affiliated bodies, comprising between 20 and 30 million people around the world, has been in the forefront of this endeavour. In 1974 it produced the Bradford Proposals for a World Disarmament Conference with Non-Governmental Participation, and distributed these proposals in millions in about 14 languages. Since 1974, General and Complete Disarmament with priority given to nuclear disarmament, has been its constant pre-occupation.

Senior officers of the IPB visited Japan in 1975 and 1976, and became convinced of the validity of claims expressed by its Japanese-based affiliate, that the damage and after-effects of the atomic bombing of Hiroshima and Nagasaki had been underestimated, and that the conditions of life of hibakusha (as A- and H-bomb victims are called) were deplorable and should be speedily improved.

On this basis, IPB and its Japanese friends began to put together a strategy, believing that understanding of the horrendous effects of the two bombs (which are tiny compared with modern weapons) even 32 years afterwards, is essential if the true necessity for disarmament is to be communicated.

The 21st World Conference Against A- and H-Bombs, meeting in Tokyo, Hiroshima and



Nagasaki in 1975, decided to send a delegation and a report to the Secretary-General of the United Nations, and this was done in the latter half of 1975. The reception which the message and the delegation received in New York was sympathetic, but it was clear that United Nations action was unlikely and, in any case, would take a considerable time to organise as it had a low place on the list of priorities.

On February 7, 1976, after raising the matter on several occasions, the IPB and its affiliates succeeded in getting a resolution adopted by the Special NGO Committee on Disarmament in Geneva, in the following terms:

The undersigned Non-Governmental Organizations,

Conscious of the importance of the *Report of the Secretary-General on the Effects of the Possible Use of Nuclear Weapons and the Security and Economic Implications for States of the Acquisition and Further Development of these Weapons*,⁽¹⁾ and other specialist investigations,⁽²⁾ as a means of informing the public about the nature and dangers of nuclear war;

Noting, however, that the information contained in these reports on the medical consequences of the use of nuclear weapons needs to be supplemented and up-dated;

Appreciating the importance of the research already undertaken, especially in Japan, into the effects of atomic radiation on those who were originally exposed to it in 1945, and on their descendants;

Agree 1. To encourage the further investigation of the continuing suffering of the victims of the A-bombs dropped in 1945 on Hiroshima and Nagasaki, including the effects of atomic radiation on their descendants;

2. To urge the summoning, preferably under the auspices of United Nations with the collaboration of the World Health Organisation, of an international symposium at which the results of these investigations can be studied by a widely representative group, including qualified medical experts;

3. To undertake, by all means at their disposal, the widest possible dissemination of the conclusions of the symposium, and of other relevant information, in order better to inform world public opinion on the realities of nuclear warfare.

Later in the same year, on 10 September 1976, the Special NGO Committee on Disarmament in Geneva made the following Minute:

Twenty-four organisations, both international and national, have now given their support to the Resolution on A-Bomb Victims adopted at the Committee's 21st meeting on February 7th, 1976. Meanwhile, important progress has been made towards the implementation of this Resolution, as reported to this meeting by Arthur Booth, Chairman of the International Peace Bureau. The IPB

plans to organise next year a meeting of internationally recognised experts in the medical, social and other relevant fields, to study the continuing problems of those suffering from the effects of the bombs dropped on Hiroshima and Nagasaki in 1945. The IPB also plans that the results of the experts' meeting will be put before a larger meeting representing NGOs, the media, research institutes and others in touch with public opinion, so as to draw the widest possible attention to the problem.

We warmly support the initiative which the IPB has taken in this matter and particularly welcome the fact that positive steps have been taken to secure the active interest and support of the World Health Organisation. We trust that the full cooperation of WHO in the proposed study can be assured. We also appreciate the readiness of IPB to seek the active collaboration of other organisations in the planning of the meetings to be held next year; and encourage Arthur Booth to continue his consultations with NGOs—notably, but not exclusively, those which have supported the resolution of February 7th—with a view to establishing an appropriate committee for sponsorship and planning.

In giving our support and approval to the initiatives taken by IPB in this matter we do not wish in any way to exclude the possibility of United Nations sponsorship for the proposed meetings, which, indeed, we would warmly welcome.

With this support behind it, the IPB and its friends within Japan mounted a massive operation to engage thousands of citizens from all walks of life in a series of committees, dealing with (on the part of scientists, doctors and other specialists) the review of existing knowledge and research and the preparation of working papers, and (on the part of peace activists) the organisation of popular support and the raising of funds.

In the international field, the IPB invited support for an International Preparatory Committee, and secured sponsorship from 40 NGOs and a number of eminent world citizens.

Constant liaison was assured between Geneva and Tokyo by the appointment of liaison officers in both centres, and the whole enterprise went smoothly into operation as the International Symposium on the Damage and After-Effects of the Atomic Bombing of Hiroshima and Nagasaki. The Symposium was planned in three stages: the First Stage was to be the recruitment of 12 international and 12 Japanese scientists of the highest calibre who would examine

(1) United Nations publication E.68.IX.1.

(2) See, for example, *Ionizing Radiation: Levels and Effects*, Vols. I & II, United Nations publication E.72.IX.18.

the material in the working documents from the point of view of their own knowledge and experience, and who would meet together in Japan to refine and revise these papers after visiting institutes, hospitals, interviewing A-bomb victims and doing everything to inform themselves both on the history of the matter and on the present situation.

In the meantime, the two Mayors of Hiroshima and Nagasaki had also prepared a remarkable report which they addressed to the Secretary-General of the United Nations in 1976. This report was more detailed and authoritative than the earlier report presented by the 22nd World Conference already referred to. The report from the two Mayors was used as one of the basic documents by the International Investigating Team of Scientists. The whole concept had attracted so much attention that the original 24 scientists and specialists were increased to 44 from 14 countries. Much advice on the composition of this team was obtained from WHO and UNESCO. Other bodies also—SIPRI, the Pugwash Group of Scientists, IAEA, UNSCEAR, and the Radiation Effects Research Foundation in Japan were also generous with their time and helpful advice.

The Second Stage of the Symposium was conceived as a large gathering of representatives of NGOs and research institutes who would receive the report of the Scientific Team, and would further debate the matter in considering how best to lay the information before world public opinion and the appropriate authorities.

The Third Stage was to be the presentation of the completed findings of the first two Stages of the Symposium to the two enormous rallies held in August every year at Hiroshima and Nagasaki. It was the information, funds and enthusiasm of these thousands upon thousands of Japanese citizens who had made the whole project possible, and who, at similar rallies the year before had approved with acclamation the IPB Chairman's announcement that the IPB was prepared to take the initiative.

The complete Report comprises some 400 pages of typescript which, being produced hurriedly for the purposes indicated above, is of uneven quality, although its conclusions are impeccable. All the Working Documents on which the Scientists worked—in two groups, Natural Sciences and Social Sciences—and the Reports they produced contain material of the utmost importance, and should be studied with care.

It may seem surprising that after three decades the investigation turned up new information. It also discovered serious and disturbing gaps in existing

knowledge and research. It was also disturbed to find complacency in some of the relevant authorities, coupled with lack of interest in some international bodies.

The international team believed that, given the urgent need for better data on the biological effects of ionising radiation on man, the paucity of the current research effort is inexcusable.

While viewing with abhorrence the events that produced this situation, the well-being of present and future generations requires that full use be made of it, in a world still faced with the spectre of nuclear war—in which radiation seems destined to be the main weapon of destruction—and now, faced with the large-scale use of nuclear energy, it is imperative that maximum information should be obtained from the victims of the A-bombs. The willingness with which distressed and badly injured survivors gave their accounts of the experience of 32 years ago, and of their lives since that time, was moving and exhorting. On occasions, when survivors and investigators, the latter adhering to principles of scientific objectivity and personal integrity, were re-examining the facts of the experience together, both were unashamedly reduced to tears. There is a place for sentiment and human emotion, and scientists are, like the rest of us, men and women of feeling and sensitivity. Nevertheless, they felt it right to couch their Report on Stage 2 which is, in a sense, the definitive document, in careful terms of understatement. In this Report, 14 recommendations are made, and it is possible that so muted and careful is the terminology used, that only the experts among us would understand the significance of them. As the lay Chairman of the Scientific Enquiry—the man, who it was said “put the nuts and bolts of the Symposium together,”—I feel it my duty to try and explain the real significance of these recommendations. Much writing by individual members of the scientific expert team has already been done in scientific and other specialist journals. Before dealing with each of the 14 recommendations briefly, I think it is necessary to point out that we are here dealing with the effects of two tiny atomic bombs dropped 32 years ago. They were so small that it is doubtful if bombs of that size and type would even be included in any modern armoury as tactical nuclear weapons or “mini-nukes.” It is no personal satisfaction to me to have to say that former estimates of the numbers killed, even in United Nations Reports, appear to be grossly underestimated, because at this point we are all losers unless we accept the pleas which come from the hibakusha that we should understand what happened, and what is still happening, in all its horror. The reasons for the underestimates, or

for the apparent complacency and lack of urgency noted in some authorities, do not concern us here. I can personally vouch for the fact that the international investigating team, all with their own and differing qualities of human understanding and political opinion, conducted their work on strictly scientific and non-political lines.

This International Symposium is probably unique of its kind, and possibly one of the significant events of recent times. It was voluntary but not amateurish. It was supported only by the voluntary subscriptions of many thousands of people all over the world, but mainly in Japan. Its organisation was carried out by non-governmental organisations. Apart from the two magnificent Mayors of Hiroshima and Nagasaki, and His Excellency H. S. Amerasinghe, President of the General Assembly in 1976, who was also in Japan at that time, I cannot recall any Government or similar authority who had anything to do with it. In this sense, it was a Symposium Enquiry of the people, for the people, by the people. In other words, in this instance, the NGO world responded to the appeals of United Nations and Governmental leaders in taking action themselves to increase world knowledge and to arouse world public opinion. It seems to me that the challenge now has to be made in the other direction, and the NGOs have to demand from the United Nations and from their own Governments "What are you going to do about it?". I close with a brief review of the 14 recommendations.

The 14 Recommendations of Report of Stage 2

1. *Further effort be made to establish the number of persons who died during the first few years in Hiroshima and Nagasaki, and the causes and times of their deaths.*

This expresses the Team's dissatisfaction with the numbers of deaths quoted in reports previously issued. The Team accepted evidence leading to the conclusion that many more than 250,000 perished in both cities during the first three months. Both the numbers of deaths and their ratios to the cities' populations, therefore, make this one of the greatest, if not *the* greatest such disaster in human history. The causes and times of death are related to the effects of residual radiation on those who entered the cities after the bombs, as against those who died immediately or soon afterwards from blast and burns and the traumatic effect of total and instant destruction.

2. *The earlier assessments contained in relevant U.N. reports on the social consequences of the*

future use of nuclear weapons be reviewed and updated.

The Team accepted evidence leading to the conclusion that the social effects have been tragically minimised. The discrimination in marriage and jobs, and the social ostracism experienced in many cases from old friends who appear to think that A-bomb sickness is contagious. After 32 years, there are more than one-third of a million people known to be still suffering in these and other ways, and there is no end in sight either of the nature or the magnitude of this suffering, inflicted by two midget bombs.

3. *An effort be made to work out the dosimetry of the people who were exposed only to the residual radiation.*

Hibakusha are unique in that they were exposed to radiation at the same time as injuries from burns and blast. Those not dying immediately faced the psychological trauma of bereavement and the instant and complete collapse of society. The weaker people did not recover—or succumbed to other illnesses soon afterwards. Hibakusha are therefore probably a product of a kind of natural selection, and it is much more difficult to observe radiation induced genetic effects, when compared to a normal population. There may be a way of putting this to the test in the case of leukemia. Many people entered the cities after the bombing in search of relatives or for rescue work, and were exposed to residual radiation. Many cases of leukemia occurred among these entrants. Researchers appear to have made no attempt to estimate the doses received by these entrants but they have made calculations on average accumulative doses for entrants at different times and at different distances from the hypocentre. The greater neutron component of the Hiroshima bomb is important here, especially in view of the possible deployment of neutron bombs, but there were no neutrons in the radiation to which the entrants were exposed. The radiation induced leukemia incidence is higher among entrants than among those directly exposed for the same dose range. In the Nishiyama Valley in Nagasaki, separated by a mountain from the hypocentre, thus shielding the inhabitants from heat and blast, there were no immediate casualties. But among the 200 inhabitants two cases of chronic myeloid leukemia were reported. In such a small population, this is a very high incidence indeed, the normal incidence being 3 per 100,000 per year. Much more work needs to be done at this point, and could be done, and it holds out the possibility that estimates of radiation risk based on observations on A-bomb survivors may be too low by a considerable margin.

4. *A study be made of the plutonium content of the people in the fallout areas, with the object of establishing their internal dosimetry.*

It may seem incredible that such information does not already exist. Apart from all else, its relevance to future uses of nuclear energy do not need emphasising.

5. *The incidence of leukemia and other malignancies be carefully studied among the people who entered the cities after the bombing.*

6. *A detailed comparison be made of the overall mortality rate between those exposed directly during the explosion, and those exposed only to residual radiation.*

This is a very large field on which surprisingly little appears to have been done, and is clearly related to Item 3 above.

7. *Investigation be made into the reasons for the reported absence of certain in-utero and genetic effects in the hibakusha.*

8. *Biochemical studies of the possible genetic effects be extended.*

9. *New indirect methods of dosimetry be investigated with the aim of extending the number of hibakusha available for quantitative analysis.*

These three recommendations have obvious connections, although each refers to different areas of study and different technologies. The absence of genetic effects among the offspring of hibakusha does not mean that there are no genetic effects. Children born to women survivors who were pregnant when the bombs exploded show an increase in some congenital malformation, particularly microcephaly (small head size) resulting in mental retardation. But no increase in leukemia has been reported among children exposed *in utero*. Yet everyone knows of notable cases of children dying early of acute leukemia where the mother herself was exposed to the A-bomb as a child. Obviously, this area needs much more research, and the results would be of inestimable and direct benefit to thousands of families. Possible reasons are that the number of survivors, and the radiation dose received, are too small to show significant statistical results. It is known from laboratory and clinical experience that children born to mothers who received X-ray treatment during pregnancy are more prone to leukemia and other malignancies, but this effect is not observable at present among hibakusha. Equally puzzling is the absence of an increase in mortality rate, because experiments on animals show that whole-body exposure to a single dose of external radiation results in life-shortening proportional to

the dose. Among hibakusha there is not only no life-shortening incidence but rather a *reduced* mortality from causes other than malignancies. Similar results have been produced from among workers employed at the Windscale plant in the U.K. This has been used to imply that employment at a nuclear power plant is a healthy occupation; but its supporters have not gone as far as saying "a small dose of radiation is good for you." Windscale workers are obviously a selected population to begin with. Weak or ill people who must boost the general mortality rate would not be accepted as employees at Windscale. In addition they are continuously under good medical care. Much more information about age and time distribution is needed before quantitative assessments can be made. It is also likely that the weaker of the pregnant women either died before giving birth, or produced children who died early from other causes before developing malignancies. It is already believed that there may exist a pre-cancerous condition in children which manifests itself in a greater susceptibility to infections or other diseases well before cancer symptoms show. This may apply to cancers in general and, in particular, may account for a low cancer mortality rate among hibakusha. There are so many questions in this area that it seemed almost unbelievable to the International Team that more work was not being done on these aspects, and also that in some cases, what they clearly regarded as "horse and buggy" technological methods were being used. A large increase in the sampling and the speed of investigation is necessary, and if possible, by using more sophisticated methods. These would, of course, cost a great deal more money.

10. *All the relevant information obtained by organised bodies and individuals during the first few years be collected in one place and made available to all research workers as soon as possible.*

This is a reference to the fact that, during the Occupation of Japan by U.S. and Allied Forces from 1945 to 51, all research in this field was done by American doctors and taken to, and retained in, the United States. In recent years, some have been returned, but Japanese scientists do not know if all has been returned and, even if it has, they are often uncertain where to find it. If all has been returned, this suggests it has been dispersed among several universities and institutions, but there is considerable doubt among some Japanese specialists about whether all has been returned.

11. *Efforts to educate the public about the dangers of the continued arms race be intensified by Governments and NGOs so that no one escapes*

knowing about and understanding the disastrous consequences of nuclear warfare.

This needs no further comments, except to note that some interests have been extremely successful in spreading the idea that the two bombs were unhappy historical incidents which are best forgotten.

12. *Courses of study on the special physical, medical, biological, genetic, psychological and other aspects of the results of nuclear warfare be introduced into universities.*

No further comment is needed here. In a sense, this is an extension of Item 11, above, with the difference that while some Governments and NGOs might think it their task to educate the public in these matters, there is a long way to go before universities as such would allow themselves to be drawn into what would be regarded as political issues.

13. *Further research be carried out into psycho-social and economic conditions of hibakusha.*

The conditions under which many if not most hibakusha have to struggle to maintain their lives, discriminated against in marriage and employment, and falling into a quickly descending spiral of overwork and tiredness in the low-grade jobs available to them, in order to pay for a few week's hospitalisation or rest soon drop them into a poverty trap from which there is no escape. Even children of hibakusha suffer the same kind of discrimination because of suspected genetic effects and lack of ability to work without excessive fatigue. Many are told not to work too hard, or to take long rests when they are ill, but this is impossible for them. They have to kill themselves at work in order to live. Even the mildest form of common cold brings anxiety which normal unexposed people cannot understand. The hibakusha always fear it may be the beginning of a terminal disease. Although there have been some notable contributions to study in this psycho-social field, the area generally must be regarded as virtually virgin ground, and the International Team described research as a whole in this field as "pitiful." Certainly, the tie-up between psycho-sociological aspects and economic deprivation has hardly been touched on except among the valiant band of social workers and others who work with the hibakusha organisations. Generally, these compassionate souls are accused of bringing "politics" into their work.

14. *Hibakusha, wherever they are, be accorded*

special recognition by the relevant Governments and by the societies in which they live.

The 1977 Budget for hibakusha, raised slowly by popular and hibakusha demand over many years is ¥44.14 billion, the equivalent of about £98,000,000 or about \$176,000,000. It must be remembered that Japan has a very high standard of living with high costs, and therefore comparisons have to be carefully made. Most informed observers assert the figure is much too low, and needs to be quickly augmented. With the Japanese economic miracle, no satisfactory reason can be advanced against this. Because it is not done, hibakusha feel even more unwanted and isolated, as there appears to be no place for them in an economically booming society. The reference to "wherever they are," is to a large number of Koreans who were in Hiroshima as forced labour at the time the bombs were dropped, and were immediately sent home. Japan has never accepted responsibility for them, but has recently built a hospital in Korea. In addition, there are others in the Pacific islands who have suffered displacement, evacuation from their home islands, and the A-bomb sickness.

The hibakusha have a responsibility to tell the world "how it is" for A-bomb victims. This responsibility they have nobly discharged in coming forward so willingly to give evidence and to exhibit their wounds and their conditions to members of the International Enquiry Team. International NGOs can now claim to have gone a considerable way to discharge their responsibilities in telling the world "how it is" and "how it will be" in a world of nuclear weapons. The challenge is now to Governments and the international community as a whole to face the responsibility which they carry.

If they try to face this responsibility, they can be assured of the support of the people and of world public opinion as expressed by the international NGOs. In other words, NGOs have done, with very slender resources, the task which United Nations officers and Government leaders have asked them to do.

With far greater resources at their disposal, Governments now have to do their part. If they fail, they will earn the everlasting damnation of the rest of humankind, which may be of short duration, because the human race could even cease to exist, and that fairly quickly. It is a grim story. Why try artificially to make it brighter? We are all Hibakusha now.