The International Network of Engineers and Scientists Against Proliferation (INESAP) is a non-profit, non-governmental network organization with participants from all over the world. It is part of the worldwide activities of The International Network of Engineers and Scientists for Global Responsibility (INES). The Interdisciplinary Research Group in Science, Technology and Security (IANUS) at Darmstadt University of Technology (Germany), as a member organization of INES, manages most activities in INESAP. The international Coordinating Committee has seven members in four continents. The main objective of INESAP are to promote nuclear disarmament, to tighten existing arms control and non-proliferation regimes, as well as to implement unconventional approaches to curbing the proliferation of weapons of mass destruction and delivery systems and to controlling the transfer of related technology.

Breakthrough for Nuclear Abolition

The year 1996 brought tremendous progress in the political efforts to ban and eliminate nuclear weapons, leading to an unprecedented erosion of both the legitimacy of and the political support for nuclear weapons. The International Network of Engineers and Scientists Against Proliferation (INESAP) actively supported the global abolition wave which emerged during and after the 1995 NPT Review and Extension Conference.

One major INESAP contribution was the promotion of the concept of a Nuclear Weapons Convention (NWC) similar to the Biological Weapons Convention (BWC) and the Chemical Weapons Convention (CWC) which would ban and eliminate nuclear weapons.

The anti-nuclear chain reaction in 1996 not only comprised Non-Governmental Organizations (NGOs) but governments as well, creating a window of opportunity for a nuclear-weapon-free world (NWFW).

By signing the African-Nuclear-Weapon-Free-Zone (NWFZ) Treaty of Pelindaba in April 1996 in Cairo, 43 African States declared a whole continent to be free of nuclear weapons, and added the last brick to make the Southern Hemisphere essentially nuclear-weapon-free.

INESAP Coordinating Committee:
Prof. Dr. Anatoli Diakov (Russia)                  Dr. Martin Kalinowski (Germany)
Dr. George Lewis (USA)                               Dr. Zia Mian (Pakistan)
Prof. Dr. Dingli Shen (China)                      Prof. Dr. Fernando de Souza Barros (Brazil)
Dr. Johan Swahn (Sweden)
The International Court of Justice (ICJ), in a historic advisory opinion on 8 July 1996 in The Hague, stated that "the threat and use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and particularly the principles and rules of humanitarian law ".

On 14 August 1996, the Canberra Commission for the Elimination of Nuclear Weapons, initiated by the Australian government, presented its report, analyzing and recommending steps towards a NWFW, including US/Russian bilateral agreements, a Comprehensive Test Ban Treaty (CTBT), a fissile cut-off convention, a no-first-use treaty and nuclear weapon free zones.

In August, the large majority of the G-21 states proposed a phased Programme of Action for the Elimination of Nuclear Weapons within a timebound framework. It contains very important elements that should be seriously considered.

In September, after French and Chinese nuclear testing had been ceased, the Conference on Disarmament in Geneva concluded negotiations on the CTBT, which bans all nuclear explosions, although not all research and development for nuclear weapons.

On 5 December 1996, 60 military leaders from 17 countries, including a large number of former generals and admirals from the USA and Russia, published a declaration in favor of the elimination of nuclear weapons.

On 10 December 1996, in an UN Resolution initiated by Malaysia, more than two-thirds of the 169 voting states called for negotiations on a Nuclear Weapons Convention, in fulfillment of the ICJ advisory opinion.

Around such major events, INESAP has further improved its networking, research and policy-related activities which it began in 1993. From the beginning, INESAP played an initiating and catalyzing role in the nuclear abolition movement. In 1996, the following INESAP activities are especially deserving of mention:

Of central importance was the 1996 INESAP Conference "From Non-Proliferation towards a Nuclear-Weapon-Free World ", which took place 30 May to 2 June 1996 in Gothenburg, Sweden. It was organized in cooperation with Swedish FIMK (Swedish Scientist and Engineers against Nuclear Weapons) and the Interdisciplinary Research Group in Science, Technology and Security (IANUS) of the Technical University Darmstadt, Germany. Additional funds were granted by the Swedish Foreign Ministry and the Swedish Research Council FRN.

The conference was a success in gathering more than 30 active INESAP participants and others who wanted to become involved in the planning process and implementation of the next years activities that were decided at the conference. The conference examined and discussed comprehensive approaches towards a NWFW that could be accomplished in a step-by-step process.

Topics discussed during parallel sessions were nuclear disarmament, halting nuclear weapons development, regional approaches to a NWFW, cutoff and disposal of nuclear weapons-usable materials, nuclear-capable delivery systems and missile defense. Various future activities and improvements in INESAP's work were discussed and planned, including working groups on the NWC, fissile materials and missiles; a strengthening of regional activities and representation; a formal framework for participation, membership and decision making; formation of a new INESAP Coordinating Committee. Plans for a 1997 INESAP Conference in China were made, to be hosted by Dingli Shen.

Through continuing INESAP activities in 1995, in particular the INESAP Study "Beyond the NPT - A Nuclear-Weapon-Free World " and an INESAP-organized seminar at the NPT Conference in New York, INESAP actively worked in the Abolition 2000 Network, founded in November 1995, which
consolidated its work and increased the number of member organizations to more than 700.

INESAP representatives also joined meetings related to Abolition 2000 that took place at Edinburgh in February 1996 and during various conferences and other occasions. INESAP took a leading role in initiating and facilitating the NWC Working Group of Abolition 2000. Out of this Working Group, ideas and activities emerged, leading towards the foundation of a NWC Drafting Group and promoting a UN Resolution linking the World Court judgement with the NWC.

In 1996 drafting of a Model NWC took place in New York, at three meetings of the NWC Drafting Committee, consisting of lawyers, scientists, disarmament experts and activists, organized by the Lawyers Committee on Nuclear Policy. INESAP actively supported this process by participation in the meetings and providing scientific input, e.g. by a meeting at the INESAP Conference in Sweden. INESAP from the beginning was a strong supporter of the Malaysian resolution, e.g. by two related statements of the INESAP Coordinating Committee and by promoting it in the German press and parliament.

Much of INESAP's scientific and political activities in 1996 focused on raising attention to weaknesses of a limited test ban and providing scientific input to the CTBT negotiations at the CD. A number of publications were produced dealing with CTBT circumvention technologies. Largely due to the international protest, hydronuclear tests are included in the ban and subcritical tests, announced by the US government, were not conducted in 1996.

INESAP participants made proposals to induce negotiations on a Cut-off for nuclear weapons usable materials, e.g. by promoting a Comprehensive Cut-off Convention. These activities were supported by a research project on the Cut-off at IANUS. Together with the United Nations Institute for Disarmament Research (UNIDIR), a large project was prepared with the title "Effective international control of nuclear weapons usable materials as a step towards a Nuclear-Weapons-Free World ". The main goal of this project is to establish a science-policy interface to promote ideas and concepts for the elimination and safety-control of all weapons usable nuclear materials. Applications for funding this project were submitted to a number of foundations and a core group of liaisons was established which consists of 17 individuals in 13 countries.

On 19-21 January, 1996, INESAP organized, together with the "German Scientists Initiative Responsibility for Peace " and the Protestant Academy Mulheim, a workshop on the future of nuclear weapons in Europe. About 30 participants attended the workshop, which discussed historical aspects of the atomic bomb, nuclear strategy of the nuclear powers, the status of nuclear weapons research and development, Germany and nuclear sharing, and the future role of European nuclear weapons in NATO and WEU. The workshop was concluded by a discussion among NGOs from France, Britain, Switzerland, Italy and Germany on a strategy for a Europe without nuclear weapons.

As part of networking activities, INESAP participants joined and sometimes initiated debates on various issues. Around the 10th anniversary of the Chernobyl nuclear accident, the future of nuclear energy and its connection to non-proliferation was discussed from a range of perspectives, e.g. in the INESAP Bulletin, at a nation-wide Chernobyl conference in Germany and at an international workshop of the Argentinian Physical Society, organized by Luis Masperi.

During the INES Congress on "Challenges of Sustainable Development " in Amsterdam on August 22-25, 1996, a working group was held on "Nuclear weapons abolition and nuclear waste storage ". An INESAP Study Group on delivery systems and missile defense was under preparation in 1996, aimed at assessing the missile threat and possible options to respond to this threat from the perspective of various countries.
The INESAP e-mail discussion list, organized by Johan Swahn, continued to be a source of relevant information and exchange among participants about political events, opinions and facts. INESAP also maintains a homepage on the World Wide Web which includes some of INESAP's publications and statements.

Many of the above-mentioned activities have been explicitly linked to the science-policy interface, e.g. aimed at delegates to the CTBT and Cutoff negotiations, at decisionmakers in national parliaments and governments and at the press and public. A number of political statements have been published by the INESAP Coordinating Committee and INESAP participants. Wide international distribution was given to a statement of September 4, 1996 calling "upon the General Assembly of the United Nations to conclude the Comprehensive Test Ban Treaty and, as an implementation of the Advisory Opinion of the International Court of Justice, to support a resolution to begin immediate negotiations on a Nuclear Weapons Convention which would provide for nuclear disarmament in all its aspects ". Other statements were: welcoming the votes on the NWC resolution in the UN First Committee (November 14) and in the UNGA (Dec.12), a letter to the G7 Summit, and a letter to the Russian President to release Alexandr Nikitin.

The German branch of INESAP was a major driving force in the German campaign to abolish nuclear weapons. Strategy meetings were held around major events and, to plan various activities, e.g. publications and newspaper supplements, public statements, press releases and press conferences on the testing issue, the World Court judgment and the UN Resolution on the NWC. An advertisement for nuclear abolition in a major German newspaper received wide distribution and feedback; a poster wall was rented in the Parliament district in Bonn. German INESAP participants maintained their contacts with the German Parliament and government by distributing information and contributing to public policy briefings in Bonn by the newly founded organization FONAS, comprising German research groups working on natural science, disarmament and international security. They also took part in a project of the German Bureau for Technology Assessment on the control of emerging military technologies that was concluded and published in 1996, and co-organized the workshop on the Eurobomb (see above).

IANUS also participates in the Project on European Nuclear Non-Proliferation (PENN), e.g. at the international workshop on "The future role of nuclear weapons in European Security " in December in Berlin. One main focus of activity was around the UNGA vote on the Malaysian resolution which led to an open letter to the Foreign Ministry and a parliamentary debate on a nuclear-weapon-free world.

Four issues (No.8-11) of the quarterly INESAP Information Bulletin were published and disseminated freely to about 500 readers, especially during the above-mentioned events. As a major source of information and exchange on science-based information and policy debates on non-proliferation and disarmament among scientists, non-proliferation and disarmament experts, diplomats and politicians, activists and journalists around the globe, the INESAP Bulletin was essential in linking all INESAP activities. By involving authors from a variety of organizations, it contributed to building a global community of experts and activists in this field.

In terms of quality and quantity, layout and content, the INESAP Bulletin has made considerable progress in 1996, despite technical and financial restrictions. The feedback from authors and readers to the Editor (Jürgen Scheffran) was very encouraging and resulted in a voluntary financial support by some.

Most of the IANUS research activities for INESAP and publications during 1996 were related to the above-mentioned topics and activities.

Major fields of research were a Nuclear Weapons Convention, the Comprehensive Cutoff
Convention, the control of tritium, transmutation of plutonium, long-term storage of high-radioactive waste, technologies for CTBT circumvention, verification and stability of nuclear disarmament, phasing out of nuclear energy, measures to control ballistic missiles and the verification of biological weapons.

On these topics, IANUS members participated in several conferences, e.g. the Pugwash Conference in Finland and the 8th Summer Symposium on Science and World Affairs in Beijing, China.

Financial support in 1996 came from the John D. and Catherine T. MacArthur Foundation, the Berghof Foundation, the Swedish Research Foundation and public funds given to IANUS, where the office and staff of INESAP is located. The office of the International Network of Engineers and Scientists for Global Responsibility (INES) in Dortmund is supporting the work of INESAP, especially in respect to the Abolition 2000 Network. The amount of funding related to INESAP was around $ 210,000 in 1996. About 70% of this was made available through IANUS.

However, financial prospects for 1997 are poor and indicate a further shrinking budget. The reductions in approved funding by foundations is an indicator of reduced interest in supporting non-proliferation, disarmament and nuclear issues after the NPT Extension.

For the first five month of 1996 INESAP was able to employ a scientific coordinator (Martin Hellmann). Later the main portion of the organizational work was carried by three senior research associates at IANUS (Martin Kalinowski, Wolfgang Liebert, Jürgen Scheffran). For technical and specific organizational tasks, post-graduate and under-graduate students were employed.

Major decisions were taken by the INESAP Coordinating Committee, which was newly formed at the INESAP Conference in Sweden. It now consists of Fernando de-Souza Barros (Brazil), Anatoli Diakov (Russia), Martin Kalinowski (Germany), George Lewis (USA), Zia Mian (Pakistan), Dingli Shen (China) and Johan Swahn (Sweden).

**Selected publications related to INESAP activities (not mentioned in the 1995 report):**


J. Altmann, W. Liebert, G. Neuneck, J. Scheffran, Preventive Arms Control as a Prerequisite for Conversion of Military R&D, to be published in: J. Reppy, V. Avduyevsky, J. Holdren, J. Rotblat (Eds.), Conversion of Military R&D.


Proceedings of the Gothenburg conference and the Geneva Workshop were under preparation.