

# 核扩散：

*Nuclear Proliferation:*

# 危险与防止

*Danger and Prevention*

朱明权 著

上海科学技术文献出版社

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## 作者简介

朱明权,复旦大学美国研究中心副主任、教授,美国乔治亚大学东西方贸易政策中心高级客座研究员。1968年毕业于北京大学世界历史专业(本科),1981年毕业于南京大学国际关系专业(硕士)。近年来主要致力于国际安全关系与美国防务政策的研究,著有《国际关系史》等书和论文数十篇。

# 前 言

核扩散,更准确的说法是核武器扩散,具有着两种基本形式:一是纵向扩散,或称垂直扩散,即核武器国家的核武库在规模上的扩大、质量上的提高和品种上的增加;二是横向扩散,或称水平扩散,即无核武器国家通过研制或购买拥有了核武器。本书在使用核扩散这一概念时,一般都是就水平扩散而言的。

自美国在1945年爆炸了第一颗原子弹后,核扩散问题就被提上了政治家们的议事日程。时至今日,它更是成了国际政治中的一个不折不扣的“热点”,不仅必须为各国政府在制订国家安全政策时认真加以考虑,而且也吸引了日益增多的学者和公众的关注。

长期的冷战中,尽管国际社会已为防止核武器的扩散作出了持续的努力,核扩散的危险仍然未能得到有效的抑制。这一事实向我们提出了两个密切相关的问题:从过去的经验中,我们可以得出什么教训?在冷战后的国际安全环境中,核扩散的危险怎样才能真正得以防止?。

在就国际安全,特别是军备控制进行研究和教学的过程中,笔者越来越强烈地感到了这些问题的重要性和复杂性,以及为它们写出答卷的必要性和紧迫性。本书即是这种努力的一个成果。我虽不奢望它能使读者们普遍感到满意,但确信它可以为读者们的进一步探索与研究提供某种基础。

围绕着核武器扩散的危险与防止这一主题,本书由四个部分构成。

第一章追溯了东西方冷战时期核扩散的历史轨迹。尽管一些国家力图维持国际社会的个别或少数成员的垄断与控制,核武器的扩散依然成了一股难以抑制的潮流。拥有者由一个国家变成一批国

家,其中包括了若干发展中国家。而且,随着现代军事科学技术的发展,核扩散的内涵也相应地得到了延伸和扩大,不仅涉及到核弹本身,而且涉及到运载它们的工具,特别是弹道导弹。

第二章介绍了冷战时期形成的防止核扩散的国际机制。它的组成主要包含了以《不扩散核武器条约》(NPT)为核心的一系列国际协议,和以国际原子能机构(IAEA)为核心的一系列国际组织,但也包含了核供应国用以控制核出口的国内法令和机构。

这一机制的形成既体现了超级大国的强权政治,也反映了世界人民热爱和平的愿望。它为延缓核武器扩散的速度作出了明显的贡献,但其本身所含的各种弱点和矛盾,使这种贡献受到了很大限制。

第三章分析了核扩散在冷战时期未能得到有效防止的深层原因。其中不少带有普遍性,涉及到政治、法律、技术和经济等诸多因素。最重要的有:出于其政治利益的需要,美苏两个核大国有时对核扩散采取默许甚至怂恿的态度;有的无核武器国家认为,发展、拥有核武器乃是属于它们的主权,相信核扩散将能形成一种有助于和平和稳定的多边核威慑;和平利用核能技术、空间技术与制造核弹、导弹的技术重叠;传统的核供应国为争夺国际核市场往往置防止核扩散的国际机制于不顾。与此同时,作为世界上第一个也是超级的核大国,美国的核不扩散政策在理论基础和实际操作方面具有的矛盾和陷入的困境,则是造成核扩散长期不能得到有效控制的主要原因。

第四章探讨了冷战后核扩散的危险以及防止核扩散事业的前景。进入90年代以后,以东欧剧变和苏联解体作为主要标志,国际安全环境发生了深刻变化。这种变化导致了一系列有利于促进国际社会防止核扩散事业的进程,例如:美俄裁减战略核武器谈判取得的重大进展,关于全面停止核试验的日内瓦会议的召开,核供应国出口控制机制的普遍加强,伊拉克等国发展核武器计划的受挫。国际安全环境的新变化,在某些方面也增加了防止核扩散事业的

困难,如前苏联广大地区成为扩散源的可能性的增加,地区性政治对抗和军备竞争的发展,导弹拥有国的进一步增多,钚在日本等国的大量过剩。但是,如果加以仔细权衡,可以看到,积极因素具有的正面效应总体上大于消极因素具有的负面作用。

第四章为促进核不扩散事业,提出了国际社会应当遵循的努力方向。其基础应当是:合理地考虑和保证无核武器国家——特别是第三世界的无核武器国家的安全利益。其途径则应当是超级核大国进一步削减它们的核武器数量,并停止在质量方面的竞争;所有核国家承担对无核武器国家不使用或威胁使用核武器的义务;加强国际原子能机构的保障制度;核供应国有效管理与核武器有关的“两用”技术和材料的出口。该章最后扼要阐述了我国在核不扩散问题上的原则立场和主要贡献。

在撰写本书时,笔者尽力将理论与现实、政策与技术结合起来,希望它不仅能对有关专家学者们的工作有所裨益,而且也能对关心世界的非专业性读者所欢迎。然而,虽然我有这一良好心愿,由于核扩散问题毕竟属于一种新兴的跨学科领域,加上本人学识有限,书中可待商榷甚至错误之处肯定难免,衷心欢迎读者们的批评和指正。笔者坚定地相信,这种相互探讨和交流,将不仅有助于学者们各自学术水平和研究能力的提高,而且有助于我国学术界整体水平和能力的提高。它对国际安全和军备控制这一新兴学科尤其重要。

该书能在1995年年中出版,具有着特殊的含义。

今年是不扩散核武器条约正式生效的第25周年。4月份,加入了这一条约的160多个成员国将聚会纽约,举行第五次审查会议,讨论该条约是否应当延长和如何延长的问题。正象已经举行的四次审查会议所表明的,不扩散核武器条约已经经受了时间的考验,显示了强大的生命力。但是,与此同时,它又因本身的内容规定和执行情况而受到许多批评和指责。特别是一些无核武器的签署国,始终认为该条约具有的歧视性是大国强权政治的反映,认为拥有

核武器的签署国并未按照条约要求积极地削减自己的核武库。因此，可以预料，1995年的第五次审查会议将会不乏争论、矛盾和妥协。其结果将不仅决定不扩散核武器条约的命运，而且将对以它为基础的整个国际核不扩散机制的未来产生巨大影响。

1995年又是具有伟大历史意义的世界反法西斯战争胜利50周年。重温这一战争的教训和经验，显然可以推进当今国际社会的防止核扩散的事业。

德日意法西斯发动的第二次世界大战，是核武器问世的催化剂。事实上，正是在它的最后阶段，美国轰炸机从日本广岛和长崎上空先后投下了两颗原子弹。从某种意义上说来，日本被迫喝下了它积极参与酿造的苦酒。这段历史，就象第二次世界大战结束以后核武器扩散的过程一样，清楚地说明国家间的紧张关系，特别是武装冲突，是促进核武器研制的关键动力。正因为如此，防止核武器扩散的根本基础，在于国际关系的真正改善，即各国都将自己的对外政策建立在和平共处的五项原则之上，放弃任何建立世界或地区霸权的侵略政策。如能这样，核武器扩散自然就失去了内在动力。

第二次世界大战还向我们提供了另外一个启示。反法西斯联盟所以能在这场进步与反动、正义与邪恶、光明与黑暗的生死较量中取得最后胜利，原因固然很多，但非常重要的一点，无疑是国际进步力量克服了相互之间的矛盾和分歧，建立、巩固并发展了国际反法西斯统一战线。同样，在今天的国际社会核不扩散目标的实现，既不可能是个别大国颐指气使的结果，也不是仅仅依靠少数大国的努力就能办到。只有当各国在平等、理解和信任的基础上作出共同努力时，才能达到对核武器扩散的有效控制。

第二次世界大战期间，中国人民再次显示了自己的不畏强暴和热爱和平的优良传统，在同日本军国主义的斗争中承受了巨大的民族灾难，同时也为最终击溃法西斯力量作出了不可磨灭的历史贡献。同样，当前新中国也已成为国际社会促进核不扩散事业

的一支重要力量。我国政府一贯反对核讹诈和核威胁，主张有核武器国家承担不首先使用核武器的义务，要求超级核大国率先大规模地削减它们的核武库，支持有关国家和人民建立无核区或无核武器区的努力。坚持和贯彻这些立场和政策，无疑符合世界各国人民的根本利益。那种对中国原则正义立场的曲解和攻击，对中国合情合理政策的非难和指责，特别是那种动辄对中国施加的经济制裁，不仅会无端伤害中国人民的感情，而且会损害整个国际社会的防止核扩散事业。

在构思和撰写本书时，得到了复旦大学美国研究中心和国际政治系许多同仁的真诚鼓励和支持，得到了美国Ploughshare基金会的热情帮助。尤其是复旦美国研究中心军备控制和地区安全研究室的负责人沈丁立博士，不仅向我提供了宝贵的资料，而且在科技问题上成了我可信赖的顾问。当然，如果在此方面仍有疏漏，责任应当由我自己承担。

本书的出版曾因为种种原因而一度搁浅，承蒙上海科技文献出版社的大力支持，促成了该书的最后问世。在此感谢上海社会科学院的薛素珍教授的帮助和责任编辑方虹女士高度专业化的编辑工作。我也更感谢我的妻子和女儿，是她们为我创造了一个温馨的创作小环境。

最后，我想说的是：每当我在学业上取得一点微小进步时，我总想起我的导师——前中国国际关系史研究会理事长、南京大学国际关系史教授王绳祖先生。他已经永远离我们而去，但他的为人风范和治学精神始终留在我的心中。

朱明权

1994年元旦于复旦

## Foreword

Nuclear Proliferation, more precisely, nuclear weapons proliferation, takes two basic forms. One is vertical, and it means nuclear-weapons states enlarge the size, promote the quality and increase the variety of their nuclear arsenals. The other is horizontal, and it means former non-nuclear-weapons states get nuclear weapons through indigenous development or procurement. Generally speaking, the term "nuclear proliferation" used in this book refers to the horizontal proliferation.

Since the United States detonated its first atom bomb in 1945, the issue of the nuclear proliferation has been brought to the agenda of statesmen. Today, it is a real "hot point" in the international politics, not only being carefully considered by various governments in making their national security policies, but being followed with interests by more and more scholars as well as the public.

During the long Cold War, the international community made sustained efforts to prevent the nuclear proliferation; nevertheless, the danger of the nuclear proliferation was not constrained effectively. Such a fact poses us two questions that are related to each other closely: First, what kind of lessons can we learn from the past experience? Second, how can the danger of the nuclear proliferation be actually prevented in the international security environment of the post-Cold War?



In the process of research and teaching on international security, especially arms control, the author has felt more and more strongly importance and complexity of these questions, and necessity and urgency to reply to them. This book is just an attempt to do so. I have no excessive wishes that all the readers will be satisfied with this book, but I am confident that it can lay certain foundation for their further exploration and research on these questions.

Focusing on the theme of the danger of nuclear weapons proliferation and its prevention the book consists of four chapters.

In Chapter I traced is the historical locus of the nuclear proliferation during the era of the Cold War between the Eastern bloc and Western one. Despite that some states tried to maintain monopoly of the nuclear weapons by individual or few members of the international community, their proliferation still became a trend that was difficult to control. The owners of nuclear weapons grew from one country to a group of others, including a few developing countries. Moreover, with development of modern military science and technology, the perception of the nuclear proliferation was extended and expanded accordingly, not only concerning nuclear bombs themselves, but their delivery vehicles, especially missiles.

In Chapter II introduced is the international regime of preventing the nuclear proliferation which took shape in the era of the Cold War. What went into its composition were mainly a series of international agreements with the NPT as their core, and a set of international organizations

centered on the IAEA. In addition, the domestic legislations and institutions of the nuclear supplier states to manage export control were also included.

Creation of this regime both displayed power politics of the superpowers and reflected peaceful will of the people all over the world. It rendered evident contributions to the retardation of the progress of the nuclear proliferation. But, various weak-points and contradictions contained in the regime itself greatly limited the contributions.

In chapter III analyzed are the incisive causes why nuclear proliferation could not be arrested effectively in the era of the Cold War. Many of them were genertal and common, relating with different aspects of politics, law, technology, economy, etc.. Concretely speaking, actuated by other political interests, the two nuclear powers, the United States and the Soviet Union, tacitly consented to and even connived at the nuclear proliferation in some cases; some non-nuclear-weapon states regarded development and possession of nuclear weapons as a part of their sovereignty, and believed that the nuclear proliferation could establish a kind of multilateral nuclear deterrence; technology of producling nuclear energy and space vehicles for peaceful purposes overlapped with technology of making nuclear bombs and missiles; those advanced supplier states often ignored the international regime of preventing the nuclear proliferation in their struggles for a bigger portion of the international nuclear market. At the same time, the contradictions contained inherently in the nuclear non-proliferation policy of the United States, the first unclear

state and a nuclear superpower, and the dilemma this policy fell into both in terms of theoretical basis and practical operation, was a special element in bringing about the long and unconstrained nuclear proliferation.

In Chapter IV explored is the danger of nuclear proliferation and the future of the undertakings of its prevention in the era of the post-Cold War. Since the beginning of 1990s, the international security environment has experienced a profound change indicated above all by the radical transformation of Eastern Europe. That change has produced a series of results which are beneficial to promotion of the cause of the international community to prevent the nuclear proliferation, such as the substantial progress of US-Russian talks on the reduction of their strategic nuclear weapons, convening of the meetings on the comprehensive test ban in Geneva, general reinforcement of the export control systems by the nuclear supplier states, and the repeated frustration that the nuclear weapons development programs of Iraq and some others have received. The new change of the international security environment has also added difficulties to prevention of the nuclear proliferation in the following aspects: increasing probabilities for the broad areas of the former Soviet Union to become sources of the nuclear proliferation, development of regional political confrontation and arms expansion, augmentation of missile-owner states, excessive surplus of plutonium in Japan and some other states. But if a careful balance is made, it can be found, on the whole, that the good effects produced by the positive elements surpass the

bad influences generated by the negative factors.

In Chapter VI also pointed out is the direction which should be followed by the international community in promoting the cause of the nuclear non-proliferation. Its foundation has to be: reasonable consideration and guarantee are given to the security interests of the non-nuclear-weapon states, especially those in the developing world. Its approaches should be: major nuclear powers further reduce the quantity of their nuclear weapons and cease the competition for the quality improvement of their nuclear weapons; all of the nuclear-weapon states meet the obligation not to use or threaten to use nuclear weapons against the non-nuclear-weapon states; the safeguard system of the IAEA is reinforced; and nuclear supplier states administrate more effectively than ever the export of "dual-use" materials and technology relating to nuclear weapons. The principal position and main contributions made by Chinese government in the field of nuclear non-proliferation is briefly elaborated at the end of this chapter.

While writing this book, the author tried to integrate theory with reality, policy with technology, and hoped it would not only be useful to the research work by the scholars and experts concerned, but also welcome by those non-professional readers who concern themselves with world affairs. However, in spite of this good wish, it is inevitable that there will be something wrong or questionable in this book, mainly because the issue of nuclear proliferation belongs to a newly rising trans-discipline and the author's academic capabilities are limited. Any com-

ments and criticism from readers of the book are sincerely appreciated. It is the author's firm belief: this kind of mutual discussions and exchanges will be beneficial not only to promotion of the professional achievements and research capabilities of individual scholars, but to promotion of the achievements and capabilities of the whole academic community of our country in this field. It is particularly important to such a newly rising discipline as the international security and arms control studies.

If this book can be published in mid-1995, it will be of some special significance.

This year is the 25th anniversary of coming into force of the NPT. In April, more than 170 signatories of the treaty will get together in New York and hold the fifth review conference to discuss if and how the treaty should be extended. As the past four review conferences have shown, the NPT has been tested by time and proved its great vitality. But, at the same time it has received many criticism against its contents and implementations. Above all, some non-nuclear-weapon signatories have consistently argued that the discrimination inherent in the treaty is a reflection of the power politics of the major states, and the nuclear-weapon-signatories have not cut down their nuclear arsenals as required by the treaty. Therefore, it can be predicted that there will be no lack of controversies, conflicts and compromises in the fifth review conference of 1995. Its result will not only decide the fate of the NPT, but also exert huge influences on the international regime of the nuclear non-proliferation on the basis of

the NPT.

The year 1995 is the 50th anniversary of victory of the anti-Fascist World War which was also of great historical significance. Obviously, it can push forward the endeavors in preventing the nuclear proliferation by the international community to review lessons and experiences of the war.

World War II initiated by German, Japanese and Italian Fascists was a kind of catalyst for the emergence of nuclear weapons. In fact it was at the final stage of the war that two atomic bombs were thrown from US bombers down to Hiroshima and Nagasaki. In a sense, Japan was forced to drink a cup of bitter wine it joined to brew actively. That phase of history, as the process of nuclear weapons proliferation since the end of World War II, has suggested that the intense international relations, especially their armed conflicts, are one of key dynamics in promoting the research and development of nuclear weapons. Therefore, fundamental basis for prevention of the nuclear weapons proliferation is true improvement of the international relations. That is, every country takes the five principles of peaceful coexistence as the foundation of its foreign policy, and gives up any aggressive ambitions to establish global or regional hegemony. If so, the proliferation of nuclear weapons will naturally lose its internal driving force.

World War II has also provided us with another inspiration. Certainly, there were many factors for the anti-Fascist alliance to win the final triumph in this life-and-death struggle of progress versus reactionary, justice versus evil, and light versus darkness. But undoubtedly a

very important one was: the international progressive force overcame conflicts and disagreements among them, and, established, consolidated and developed the international united front against Fascists. Similarly, the achievement of the nuclear non-proliferation goal in the current international community can neither be the result of arrogant orders from any major power, nor dependent on the efforts by quite few major powers. Only when all the states have made common endeavors on the basis of equality, understanding and trust, can the effective control be achieved over the proliferation of nuclear weapons.

During World War II, the Chinese people showed our fine tradition of defying brute force and loving peace. In the struggles against Japanese militarism we suffered terrible national disasters, meanwhile we made indelible contributions of historical significance to routing the Fascist countries finally. Equally, today China has become an important force in the international community to promote the nuclear non-proliferation. Our government has persistently opposed nuclear blackmails and nuclear threats, insisted nuclear-weapon states be under the obligation not to use nuclear weapons first, asked the superpowers to take the lead in reducing their nuclear arsenals, and supported the attempts of the states and people concerned to set up nuclear-free zones and nuclear-weapon-free zones. Surely it is in conformity with fundamental interests of the people all over the world to adhere to and carry out these positions and policies. The distortion of and attack against China's principle and just position, the censure on and rebuke to

China's fair and reasonable policies, and, especially, the economic sanctions imposed frequently on China, will not only hurt feelings of Chinese people for no reason, but also damage the cause of the international community in preventing nuclear proliferation.

In conceiving and writing the book, I received sincere encouragement and support from many of my colleagues at the Center for American Studies and the Department of International Politics, Fudan University, and warm help from the Ploughshare Fund of the United States. Above all, Dr. Dingli Shen, Co-Chair of the Program of Arms Control and Regional Security under the CAS, not only provided me with valuable materials, but functioned as my trustworthy counsellor on the issues of science and technology. Nevertheless, if there is still some negligence in this respect in this book, the responsibility for that should be taken totally by myself.

The publication of this book has been delayed for some reasons, I am indebted to Shanghai Press of Literature of Science and Technology for its printing at last. I would like to take this opportunity to express my gratitude to Ms. Xue Suzhen, Professor of Shanghai Academy of Social Sciences, for her selfless solicitude and Ms. Fang Hong, editor in charge of the book, for her highly professional work. Also, I have to thank my wife and my daughter who have created amicable environment for my work.

Finally, what I am going to say is: every time when I make some progress in my professional field, I can not help thinking of my advisor—former President of Chinese



National Society of Historians for International Relations  
and Professor at History Department, Nanjing University.  
He left us forever, but his manner of behavior and spirit of  
pursuing his studies will always be borne in my mind.

Zhu Mingquan  
Fudan University  
January 1, 1995