

Weapons of Mass Destruction:

How to set up an Inspection Regime

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Foreword

I have read with great interest this study of the Norwegian Institute of International Affairs (NUPI). I would recommend it for careful consideration by diplomats and experts involved in arms control, non-proliferation and disarmament issues. I am a strong believer that effective verification could pave the road to increased confidence in disarmament treaties, in particular related to weapons of mass destruction.

Inspections are a vital tool in international agreements that seek to minimize the potential of conflict or threats to international or regional peace and security. While States prepare and train continuously for the event of war, by comparison, the effort devoted to preparing for peace is infinitesimally small. Moreover, being prepared for peace and disarmament is critical. Trained international experts who can be ready and prepared for their tasks would be a great asset for the international community.

This study is an important step in this direction. Sustaining and furthering the knowledge base, common understandings and harmonized approaches can have enormous benefit. Planning for disarmament is not an idealistic dream.



Sergio Duarte
United Nations
High Representative for Disarmament Affairs

Preface

Weapons of Mass Destruction (WMD) have been and will continue to be a dominant threat to international security. The international community has, through a combination of skill, dogged hard work and a measure of luck, contained WMD threats. Such efforts will need to continue for the foreseeable future.

In the course of the preceding three decades, various weapons inspection regimes have been created—mainly as integral elements of international arms control and disarmament treaties, or other agreements aimed at controlling conflict. These regimes have varied in mandate, context and scope, but share many techniques, procedures, and key dynamics. Many of them are related to WMD, the most devastating weaponry ever created and deployed.

Despite this track record, surprisingly little has been distilled and recorded from the experience of the inspectors who carried out inspection activities or the diplomats and politicians behind them. If it became necessary to set up a WMD related inspection regime today, there is little central reference from which to draw upon the experiences of previous cases.

This document sets out to begin to fill that gap. Benefitting from past cases, it provides a general discussion of the important early decisions that must be taken and indicates key areas where such decisions can have major immediate and long term consequences. Diplomats and political leaders rarely come from an arms control background, and thus frequently lack familiarity with the concepts and practices of effective inspection procedures and techniques. This document provides a practical introduction and highlights important requirements, tradeoffs and pitfalls.

All types of potential WMD-related inspection regimes are covered, from those carried out under Chapter VII of the UN Charter to bilateral and multilateral arrangements. Their objectives, mandates, inspection execution, reporting and possible outcomes are discussed. The impact of likely technological advances on operations and procedures is also covered. This document is intended to serve as a primary—non-political—source to be consulted when an inspection regime is first considered.

Creating an inspection regime in the midst of an international crisis is particularly fraught with difficulty. Political leaders can find it valuable to have a recognized reference document on which to base and gauge their inspection regime proposals and deliberations. There is inevitable tension between inspection intrusiveness and confidence when weapon inspection activities are due. . Debates over establishing the balance can be heated. This document is intended to be a baseline reference to ground such discussions. Drawing on the wisdom gained from inspection regimes in the past—and the wisdom of those who made mistakes and subsequently recognized them as such—should help diplomats avoid many of the unintended negative consequences that befell earlier regimes. Compromise and judgment will always be required, but the ability to refer to previous effective practice can only improve the outcomes of such decisions.

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I must note that all who assisted in this endeavor participated in their individual capacity and not as representatives of organizations for whom they may work or otherwise be associated.

This work is the result of the cooperation and input of many individuals in addition to the ones listed above and I would like to thank all those who took time out of their busy schedules to speak with us, often at length, and who directly contributed to the text or provided commentaries.

Ultimately, the responsibility for the content rests with me and errors or misconceptions reflected here are mine alone. It is the hope that this document is the beginning of a process and that any errors or improvements can be recorded as the project moves forward.

Jørn Siljeholm
General Rapporteur

Executive Summary

Weapons inspections have been the central component in both international arms control and disarmament treaties as well as a vital element in resolving international conflicts.

Over the past three decades, inspection regimes have been used repeatedly in diplomatic efforts to limit or end conflict and foster regional and global security. Yet, these inspection regimes have often been created on an ad hoc basis, without a credible standard reference system to guide politicians or diplomats. There is no baseline source that enumerates the issues, practices and techniques that must be considered when negotiating a new system of inspections.

Furthermore, there is no mechanism for collecting the knowledge and practical expertise of existing disarmament agencies and experienced weapons inspectors. Such a resource would be a valuable aid for the international community and could inform future negotiators seeking to implement arms inspections as part of conflict resolution efforts.

Finally, there is no international registry of individuals with experience and expertise who could be called up to create, staff, or operate potential new inspection systems.

Today, if a crisis related to weapons of mass destruction (WMD) occurs, there is no standard reference material or overarching framework document that decision-makers can use to design new inspection regimes and/or equip them with appropriate verification and inspection tools. Nor is there any roster of qualified individuals who could be available for deployment for international inspection activities. As things now stand, when diplomats and politicians encounter a new crisis regarding WMD (or indeed some conventional weapons such as man-portable anti-aircraft missiles) they must relearn and reinvent, for better or worse, the elements of other earlier regimes.

While the international community has addressed recent WMD crises, there has been no effort to record systematically the lessons-learned from the weapons inspectors involved. Those experiences can provide invaluable background information for future use.

There also has been no coordinated analysis of these important inspections regimes, for example in Iraq, to synthesize the common elements, dynamics and technical aspects that can serve as a credible, *non-political*, registry of weapons inspection techniques and standards. Recent experience in Iraq also demonstrates the massive costs of conflicts that could be avoided provided an inspection regime can accomplish its objectives. Lessons from that expensive experience in particular could hopefully better inform future decision-makers and practitioners. One could note that the UN has sealed all files from Iraq, thereby making relevant assessments of inspection quality and efficiency unavailable for the next 60 years.

There may be instances where inspection systems associated with existing arms control and disarmament regimes related to WMD can be re-evaluated in light of the lessons from recent experiences. Some regimes have either become moribund or are erroneously assumed to be capable of dealing with all possible future events. Or they may not take advantage of new technologies or information sources unheard of when they were created. One has only to recall that the US-Soviet nuclear weapons agreements depended upon so-called “National Technical Means” of verification—a euphemism for secret reconnaissance satellites. Now Google Earth and commercial imagery satellites provide a much higher level of transparency.

Diplomats and political leaders rarely come from an arms control background. Without such a background it is easy to misjudge and miscalculate what is needed to implement effective arms control and disarmament regimes or mandates. Moreover, it is likely that tensions will be extremely high when such systems are created or modified. Trust will be at its lowest point and elements of any proposal will likely be suspected of political or malevolent intent. Nevertheless, it is just at such moments when positive action can be taken to reinvigorate counter-proliferation and disarmament efforts. An unbiased, non-political, credible resource that can provide the foundational information and contribute to building critical staff expertise could be a major improvement to the international security environment—one that no organization, not even the UN, currently offers.

In the fall of 2010, the Norwegian Institute of International Affairs (NUPI) took the initiative to invite a select group of former weapon inspectors and diplomats to Oslo to begin to discuss producing practical reference materials for those who may face the future challenge of setting up and implementing a new international inspection regime. In parallel, a range of interviews with former weapons inspectors and key stakeholders were conducted. The resulting document sets out, briefly, the most important early decisions which have

to be taken before any WMD inspection regime is set up—in particular by the United Nations—and the implications of those choices.

All types of WMD inspections (though relevance to potential conventional weapons inspection activities should be noted) are covered, from those carried out under Chapter VII of the UN Charter, to more cooperative arrangements on a bilateral or a multilateral basis. Objectives, mandates, the conduct of inspections, reporting, and possible outcomes are delineated.

Norway's vision of progress in disarmament calls for committed international leadership at the highest levels. NUPI's initiative has been inspired by that vision and could build momentum for further specific and implementable steps. If this goes along, the international community will have at its disposal a significant pool of qualified and well-prepared experts. Those who might be identified and trained by this process would be committed to a vision of advances in disarmament.

We therefore recommend that immediate action be taken to collect, record and crystallize the inspection knowledge and insights gained at great cost over the past decades. Specifically, we recommend that:

- The interview process with former and current weapons inspectors and diplomats should continue, so that as many experts with rich inspection experience from as many backgrounds and perspectives as possible can be canvassed;
- The resulting document (and ultimately an on-line resource with an assortment of related resources and databases) will develop to become a living product to be updated and modified on a continuous basis to take account of changing technologies, experiences and practices around the world. It is envisioned that this could become the basis for an “effective practices” compilation that would be carefully considered and reconsidered by international experts;
- Also, the resulting documents would be taken as the guide for a training program to prepare suitable candidates to participate in international inspections. This effort would offer a pool of personnel trained to respond to both existing and future global non-proliferation requirements;
- Attention is paid not only to the development of training, but also to examining model inspection regimes, incorporating as many lessons from existing and former institutions as possible.

Norway is well placed to reach out to the widest scope and variety of stakeholders and practitioners before the hard-won knowledge that currently exists on the topic begins to fade away.

Norway has the resources, capacity and opportunity to establish a lessons-learned reference for future inspection regimes and arrangements, as well as a process to train future weapons inspectors.

Norway could be seen as a credible custodian of a registry of arms inspection practices and resources. Such a repository would assist policy-makers and diplomats in situations where weapons inspections systems can contribute to a solution.

A pan-Scandinavian or another international approach might be suggested as a wider platform for carrying out this process. Ultimately, the United Nations may well be the host for the resulting product. In the final analysis, the world community as a whole would benefit from the efforts with new and unique tools for diplomacy and conflict resolution.

I. Introduction

A weapon of mass destruction (WMD) may be defined as a weapon that is capable of indiscriminant and large-scale destruction of people, infrastructure and resources. WMD usually include nuclear, chemical, and biological weapons. WMD are the subject of numerous international arms control, non-proliferation and disarmament treaties in addition to political agreements, conventions and other legal arrangements.

1.1. Weapons inspection. States have been developing and deploying WMD for nearly a century, whereas arms control, non-proliferation and disarmament measures have lagged behind. Arms control agreements inevitably focus on verification and inspections are regularly a key element of verification; they build confidence in compliance. The more comprehensive, thorough, and independent an inspection regime is, the greater is its value in providing assurance that the parties are adhering to any agreements. Depending on the circumstances of the agreement, destruction of weapons and associated facilities may be included in an inspection regime. It may also be the case that under certain circumstances political leaders seek to avoid the term “inspections” and use a lighter term such as “fact-finding missions” or “visits.” The basic elements herein still apply.

1.2. Weapons inspection efficacy. The deterrent value of a weapons inspection regime (its effectiveness in dissuading a party from cheating) is a function of multiple factors. The party subject to inspection will make decisions on compliance based on *its assessment of the probability of detection of violations coupled with its assessment of the potential cost (or penalty) of being detected.* This is a risk-deterrent equation, and one that must be taken into account at the outset by those creating an inspection regime. Negotiators may design, and inspectors operate, a system that has a certain probability of detecting violations. However, the consequence (or penalty) to a non-compliant party is in the hands of the supervisory political body (e.g. the UN Security Council) constituting the inspection regime. Those creating a new weapons control mechanism must consider these two aspects of the equation from the outset.

1.3. Balancing considerations. There is an inevitable tension between the national security and sovereignty concerns of the inspected state, versus the intrusiveness of the mandated inspections. This tension tends to dominate the concerns of the drafters of a new regime. Drafters must consider the balance between highly intrusive inspection techniques that can increase the probability of detecting violations with the extent and certitude of the penalties they will impose. A political evaluation of this balance with respect to achieving the desired overall goals can only be achieved through careful negotiation and assessment of the specific situation. (The trade-off between protection of national security information and openness for inspections was most recently seen in the negotiation of verification measures between Russia and the United States for the new START agreement on strategic nuclear forces. Of particular importance was access to the telemetry data transmitted during ballistic missile test flights. Both sides agreed to not encrypt data according to mutually agreed arrangements. They traded sovereignty for the benefit of verification confidence.) However, there are common dynamics and tradeoffs in all cases and a variety of historical inspection experiences should be reviewed for such situations. It may be noted that many of the skills and inspection techniques can equally apply to non-WMD weapons inspection situations.

1.4. Relevant knowledge erodes. Many of the practitioners who set up and initially conducted inspection processes during the past few decades are no longer active. Indeed, international weapons inspection activity has declined in volume, though not importance. This drop does not imply a sudden outbreak of world peace. There is a normal ebb and flow to international security dynamics. US-Russia inspections have diminished. The Intermediate Nuclear Force agreement has successfully come and gone. On the horizon may be new applications for weapons control and inspection, such as in North Korea or Syria. Past practice and caution would suggest that the international community would do well to prepare tools to contain future conflict and sustain the capacity to implement mechanisms for weapons control and inspections. However, despite the wealth of past experience, there is no readily accessible repository available to inform the drafters of new regimes. Moreover, the pool of experience is fragmented, anecdotal and perishable. This document provides an introduction and guide to the construction of an inspection system. The intent is to inform those creating future regimes so they do not have to relearn the lessons of the past, and can avoid potentially costly mistakes. Accompanying efforts to sustain a web-based database as well as an international register of individuals with relevant skills and experience are also planned.

- 1.5. Purpose.** The objective of this document is to describe briefly the issues and requirements political leaders and diplomats will need to have in mind when considering a new verification or inspection regime, or when authorizing a specific verification or confidence-building activity regarding WMD. It is hoped that this will contribute to international norms, standards or “best practices” in the field of weapons inspections. Further, with sufficient international interest, there are opportunities to enhance the international exchange of ideas, training, procedures, equipment, and participation for future inspection activities.
- 1.6. Control regime – types and circumstances.** This document is relevant for all types of potential WMD inspections—from those backed by the threat of coercive action or sanctions under Chapter VII of the UN Charter to more consensual arrangements between individual states.
- 1.7. Context of regime creation.** In the past, inspection regimes have been created after lengthy debate, negotiations and careful consideration. However, they have also been created suddenly during periods of great international tension when objective baseline data have not been readily accessible and much uncertainty dominates the situation. Consider a crisis involving the alleged use, possession, stockpiling, research, and development or testing of WMD. Policy-makers will attempt to bring the situation under control. This may occur under the aegis of an existing arms control inspection agency or the UN Security Council. However, the crisis may not be covered by existing arrangements and the diplomatic venue might be that of a regional group of states pursuing bilateral or multilateral negotiations. (For example, concerns about non-compliance with the Biological Weapons Convention (BWC)—which has no verification mechanism—were addressed in the trilateral agreement of 1990-1992. See below.) The principal objective may be to negotiate a settlement that will seek to assess the numbers and types of weapons and facilities involved, with a view to their control or elimination. Actions taken in such a crisis may lead to the institution of long-lasting arms control measures with unforeseen consequences—particularly if those charged with this task have little or no knowledge of WMD or inspections. Former experts in whom such knowledge resides may not be consulted, may not agree, or may be seen as politically biased. Moreover, negotiations in such a highly charged political environment may occur when trust is at a nadir. There are pressures for answers about the reliability of verification and inspections measures. At the sudden conclusion of the 1991 Gulf war, diplomats were unprepared to negotiate a UN resolution that created the ceasefire and linked Iraq disarmament to

lifting sanctions. The war ended before any serious post-conflict planning was done and diplomats at the Security Council were considering draft measures with very little expertise. The resolution was not tempered by realistic experience and for many participants—especially the non-permanent members of the Security Council—they had no basis to evaluate the importance of the measures proposed. Absence of credible expertise can, and has, produced mistakes. Even seemingly small mistakes at the early stages of initiating arms control measures may have long-term political consequences that undermine the whole process.

1.8. Illustrative cases of regime creation.

A. Chemical Weapons Convention (CWC). The Chemical Weapons Convention is an example of a regime that was created following years of multilateral negotiations. Elaborate verification procedures were established in conjunction with the treaty limits. A very extensive and detailed Verification Annex to the Convention was painstakingly drafted. As part of the collective and mutually beneficial goal to eliminate the threat of chemical weapons, states, by treaty, agreed to permit international inspection teams to engage in strictly prescribed and monitored inspections of their facilities. This regime came into being in 1997 after long diplomatic negotiations, and the inspection measures were preceded by trials and review—a deliberate and lengthy process. A large international organization was established to implement the convention—the Organization for the Prohibition of Chemical Weapons (OPCW). It is now located in The Hague with 500 staff persons and an annual budget of roughly USD 100 million.

B. The Biological Weapons Trilateral Statement/Agreement of 1992.

This is an example whereby a group of states (Russia, United Kingdom and the United States) came together to resolve suspicions of ongoing clandestine prohibited WMD associated activity. Suspicions touched upon research, development, testing, manufacture, and stockpiling of biological weapons. Working groups were created and inspections conducted as confidence building measures. This sensitive issue was handled through narrow diplomatic channels and is a good example whereby a subset of parties to a treaty (in this case the Biological Weapons Convention) created an ad hoc agreement to satisfy grave concerns that included inspections as a key confidence building measure. These circumstances may occur again among countries less practiced with arms control and inspection methodologies. (For example during internal conflict in Sudan during the 1990's, there were allegations of CW use that could not be addressed within the context of local expertise.) The time needed to set up appropriate arrangements will depend on the pressure in the

political situation. However, as the scale and duration are likely to be limited, the process may be agreed upon relatively quickly. The mechanism may have a very low profile, being almost a private arrangement between states to address an underlying issue. The prospects of confidence building or inspection activities related to the BWC recurring are significant because there is no verification component of the treaty itself. Local or regional concerns are likely to be addressed by similar ad hoc inspections.

C. Post-conflict Iraq in 1991 (UNSCR 687) and Germany 1919 (Versailles Treaty). Inspections may be triggered in the aftermath of conflict. As part of a ceasefire or peace settlement, an inspection regime may be imposed as a means of assessing compliance with disarmament terms or conditions. Such regimes are coercive. These regimes may be intended to be of a fixed duration, but in practice this has not been the case. In both cases the regimes imposed upon the defeated party ended without achieving the intended objectives—long-term disarmament. Political dynamics overtook the technical operations of the inspection groups. The collective objectives and will of the states imposing the measures diverged over time and the inspectorates were caught between powerful and diverging political forces. Nevertheless, the disarmament accomplishments were substantial and the extraordinarily intrusive techniques and tactics set new standards for inspections.

D. UN investigations of chemical weapons use during the Iran-Iraq war (1984-88).

An allegation of use of a particular WMD may also trigger an inspection. During the Iran-Iraq war, Iran requested that the UN Secretary General investigate the use of chemical weapons by Iraq. In 1984, after consultations with Iraq, the Secretary General appointed an ad hoc group of (only) four specialists to travel to the region and conduct an investigation. Their inspections led to a report to the Secretary General and the Security Council. Following further allegations, the group was reconstituted for a second mission in 1986 at the height of the conflict. Again, the same medical and chemical specialists conducted an inspection. The process was unprecedented and required lengthy diplomatic exchanges when delays could result in the loss of vital evidence, degrading the overall purpose. Nevertheless, the missions were valuable in the efforts to control the conflict by the United Nations.

E. Termination of South Africa's nuclear weapons program. Other situations could include the sudden change in political affairs of a state with known or suspected WMD capacities. South Africa made a decision to eliminate its secret nuclear weapons capability in 1989 with the intention of subsequently acceding to the Nuclear Non-Proliferation Treaty (NPT). South

Africa conducted the dismantlement unilaterally and secretly until it announced its intention to join the NPT in 1991. Subsequent inspections by the IAEA confirmed the dismantlement of weapons and facilities. However, because of the destruction of all materials and documents, there seems to be some uncertainty regarding the origins of the program, and even the final disposition of the nuclear materials.

II. Inspection Regime Framework

The objective and mandate of an inspection regime must be clearly defined if it is to stand any chance of success. Given the environment in which such matters are often considered – frenetic diplomatic activity at all levels, military action and great political pressure – identifying the parameters that affect the intended regime and how they should be addressed is not easy. It is paramount to the success of an inspection regime that the desired outcome will be clearly understood and agreed by all parties. Once established, the objectives of the inspection regime can be identified. In turn, this allows those planning the process to break down the objectives into manageable tasks, each with its own goals or aims.

In parallel, a documented mandate (e.g. a UN Security Council resolution or a bilateral agreement) will be formulated, which is the political expression of the objectives of the inspection regime. The mandate becomes the legal justification and framework under which the regime will operate. Lack of care in the drafting of a mandate may result in failure to achieve the desired outcome. Changing or making even minor adjustments to a mandate after it has been agreed upon may be time-consuming at best and, in practice, nearly impossible. Thus, this early process is crucial.

2.1. The notion of weapon. Although arms control inspections may encompass any type of weapon, this document considers only those concerning WMD, i.e. chemical weapons, biological weapons and nuclear weapons. For inspection purposes, the associated infrastructure may be included. In addition, certain testing, manufacture, transport, and storage facilities may have ‘dual-use’ status, i.e. they are not exclusively devoted to WMD. These definitional aspects can drive much of the negotiating effort. Creating measures to cover these features can be very different depending upon the objective. It thus follows that particular care must be taken to define the objectives and boundaries of an inspection regime and to incorporate appropriate measures that deal with dual-use materiel.

2.2. Objectives of inspection regimes. Inspection regimes tailored to operate under specific conditions will require a deliberate set of objectives. These may range from an agreement between states concerning mutual

inspections (establishment of the presence or absence of specific weapons, equipment or materiel), to highly intrusive measures such as the complete destruction of the vital pieces associated with a specific program. The objectives will necessarily depend on the political situation and may be framed as part of any conflict-resolution measures. Alternatively, the aim may be to resolve specific concerns about an isolated suspected use of a prohibited weapon. A process may also be designed as a continuing confidence building measure in support of an arms control and disarmament agreement, requiring long-term monitoring and inspections on a strictly prescribed basis. Finally, the objective may be to attach a supplementary measure to an existing regime, designed to improve or extend what is already in place. For example, the trilateral agreement mentioned above negotiated and implemented inspections to verify compliance with the existing BWC.

2.3. Handling non-compliance. From the outset, it must be clear what is meant by “non-compliance.” This will require an unambiguous description in the mandate that will drive the scope and nature of reporting provided by the inspectorate. Strong, consistent leadership at all levels of the decision-making process and regular consultations with all parties will also help to avoid unnecessary crises over differing interpretations of compliance. An understanding of what constitutes non-compliance needs to be reinforced with an equally good understanding of the available likely response to specific violations. Any untoward event or occurrence must be met with a proportionate response. There is inevitable ambiguity at these junctures since minor issues of compliance may or may not be important. The resulting difficulty is that there may be no proportional response (penalty) to suit seemingly small infractions. For example, inspectors may arrive at a site with the expectation of being permitted entry within some standard period of waiting time. If the host government delays the inspectors by an hour, does that constitute non-compliance? If so, what proportional penalty can the supervisory body apply? Such delays can, in fact, make a substantial difference in assuring compliance.

2.4. Scope of inspection activity. Any inspection regime requires the capability to obtain the information, or carry out the actions necessary to achieve the goals set for it. This will vary according to the nature of those goals. There is a tradeoff between the concerns for national sovereignty/security and the intrusiveness of inspections. This tradeoff can be contentious depending upon the type of information deemed necessary to support the desired outcome of the regime. Drafters need to be aware of the problems that inspectors may encounter after implementing seem-

ingly simple measures such as interviewing program personnel. While it may be desirable to have a standardized approach to these matters, a pragmatic solution developed on the spot may satisfy the inspection goals. Similarly, issues can arise concerning the access of inspectors to facilities, the documents they may ask for, the ability to collect samples, and the use of particular technologies. Such practicalities need to be considered when the scope of the regime is being established.

- 2.5. The mandate.** Nothing can be achieved without a well thought-out political and legal mandate for the action plans of the inspectorate. Mistakes or unresolved ambiguities can jeopardize the entire undertaking. The mandate should be a compelling, positive statement designed to elicit political support. It should be tailored closely to the agreed requirements. Attention to technical detail and definitions is required; imprecision may cause the process to falter at a later stage.
- 2.6. Burden of proof.** This is a critical issue that must be addressed in the mandate. Depending upon the objectives of the regime, it should set out who has the responsibility to prove compliance – the inspected party, the inspectors, or a supervisory body. For example, in the case of Iraq, the Security Council clearly indicated that it was Iraq’s responsibility to verifiably declare the extent of its WMD program. It was the inspectors’ task to verify those declarations. Thus the burden of proof was on the inspected party—Iraq. Lack of clarity on this point can put the inspectorate in an untenable position when disputes arise.
- 2.7. The role of the chairman/inspectorate chief.** The document should clearly define the role of the inspectorate and particularly its chief executive. The question of whether the head of the inspectorate is expected to offer assessments of compliance or only collect and report facts is a vital subject of concern. Of course, much depends on the status, experience, and knowledge of the individual selected to head the inspection activity. It will be up to the inspectorate chief to assess the task and report to the body to which he is responsible (e.g. the Security Council in the case of the UN). The creators of a new regime may choose a head of the inspection agency even before they have solidified the mandate and other instruments of implementation. This could allow the incumbent to help shape the process that will be his or hers to implement. Incorporating the perspective of the inspectorate’s head at the formative stage may be beneficial in assuring that the regime can be implemented in practice.

- 2.8. Establishing modus operandi of inspections.** The first report of the newly instituted inspectorate is crucial. It will contain the inspecting body's interpretation of the mandate, in effect defining the *modus operandi* for its activities. As a practical matter, anybody involved should recognize that initial inspections set critical precedents. These include agreements on: a clear operational definition of an achievable outcome, how progress is to be reported, funding arrangements, how the body is to be staffed, and many other administrative and logistical issues. As time goes on, it will become increasingly difficult to expand the intrusiveness or otherwise enlarge the practices of both inspectors and the inspected party. The periodicity and content of reports to the supervisory body will quickly establish a pattern that will tend to become rigid in form.
- 2.9. Regime life.** The mandate should not only provide a clear definition of what is to be investigated, but also specify the circumstances under which the process is to be terminated or (radically) changed. Relevant details may not emerge until the agency has delivered its first report to the party that commissioned the inspection. This report should encompass specifics of both the overall inspection objective and the type of inspection and verification procedures envisaged. Consideration should be given to the possibility of changes to the objective during this process: how can changes be introduced, which mechanisms are available for this, and what sort of consensus may be required. In anticipation of the termination of the inspection regime, consideration should be given to the final reporting and the definitive disposal of archives and material collected.
- 2.10. Resources and funding.** Creating a new regime cannot be accomplished without making an accompanying decision on providing the resources necessary for the inspectorate to accomplish its mission. Realistic estimates of funding requirements can be made through comparison with ongoing inspection organizations (e.g. OPCW) and the experience from previous groups such as United Nations Special Commission (UNSCOM) and United Nations Monitoring, Verification and Inspection Commission. (UNMOVIC). Costs for a deployed inspector in the field with all support can be modeled, as can the expenses associated with headquarters essentials, data handling, communications, and such ingredients as overhead imagery and aircraft services. Consideration may also be made for possible in-kind contributions by some supporting governments. (For example, the German and later the Chilean government provided helicopter support to UNSCOM operations in Iraq.) The vital point is to not underestimate the true costs of the regime.

2.11.Future requirements and accounts. A key function of the inspection organization is to project its future requirements and account for its expenditures. The inspection agency should not (ideally) have the added burden of soliciting contributions to carry out its mission. Instead, it should be responsible only for providing estimates of the resources needed. In addition to being an obstacle to the advancement of mission, ad hoc arrangements for the provision of resources can carry political consequences that may affect the real or perceived objectivity of the inspection body. Should such arrangements be necessary, propriety calls for experience and good judgment. (The UN Security Council did not provide for funding of UNSCOM activities when UNSCOM was created. Therefore, donations were the only source of resources and those who donated tended to be those who had a direct interest in keeping Iraq contained, namely the US and the Gulf States.)

III. Initial Phase

The head of a newly created inspection regime must arrange for many guidelines on fundamental issues within a very short period. Internal guidelines for the inspectorate operations will be required as well as procedural guidelines agreed upon with the inspected party.

- 3.1. Legal framework.** The mandate, whatever its form, is the basis on which derivative inspection procedures are set. Subsidiary documents will likely be required to establish privileges and immunities of inspections staff, aircraft flight clearance procedures, landing rights, and other operational guidelines. An evolution of legal structures should be anticipated. Creation of the mandate must take account of the legal practice of all the parties involved, including those of existing international disarmament organizations such as the IAEA and the OPCW.
- 3.2. Relationship with the inspected state.** There must be clear lines of communication with the inspected state. A key determinant of how well inspections will be conducted is the relationship between the inspected state's representatives on the ground and the inspectors themselves. At one end of the spectrum, the process may be entirely consensual. Inspectors may be following an invitation voluntarily offered by the inspected state (e.g. in 2003 when Qaddafi invited inspections in connection with Libya's decision to end nuclear and CW programs, or the normal IAEA inspections in countries party to the NPT). At the opposite end, the inspections may be imposed on a state hostile to any such operation, requiring an intrusive approach (as in the inspections in Iraq). The way in which an inspection process operates will be affected at every point by the nature of this relationship. Reporting on these relations to the supervisory body must be transparent to the inspected state with regard to both positive and negative aspects.
- 3.3. Information.** Inspections are scheduled or triggered either in reaction to information received or in pursuit of information needed by the inspectorate. Information may come from open sources, secret intelligence, or a third party on a confidential basis, for instance a commercial company. (For example, UNSCOM was provided information about material

exported commercially to Iraq that was ultimately used in its BW program. This provided the critical clue in revealing the program's existence.) The information may also derive directly from the inspected state in the form of a declaration or similar document. Information may take various forms: physical evidence such as weapon remains, witness statements, documents or electronic media, aerial imagery, reports of patients' symptoms, or samples of suspect substances. Critical decisions are necessary concerning information access and dissemination. States are more willing to be open and share sensitive information the less broadly it is shared. This inverse relationship needs to be balanced by the head of the inspection body since the credibility of the inspectorate is a function of its transparency.

- 3.4. Intelligence and transparency.** International agencies are often nervous about handling "intelligence" information and tend to shy away from any process that resembles the work of an intelligence organization. However, it is impossible to avoid the need to use and collect confidential information when carrying out weapons inspections. In essence, inspections are entirely about information; without a flow of information, there will be no inspection. Tough issues such as whether all information will be shared with all involved countries (or even all inspectors) need to be addressed. Further, the question of whether information about the inspected state is shared with any other country is critical and needs to be evaluated at the start. The ideal approach is to adopt clear, well-documented procedures that are standardized. Consideration of practices under other conditions (such as the methods used by the UN Department of Safety and Security) can provide a useful guide.
- 3.5. Information "fishing."** Inspectors are commonly accused of "fishing" for information, or worse, that they are "spying." Procedures should be drafted with this in mind. It is vital to build into the system a series of checks and balances to ensure that inspectors can avoid compromising situations open to misinterpretation.
- 3.6. Irrelevant information.** Advances in computing, communications, and data storage mean that the amount of information available to inspectors is growing. Inspectors may unwittingly obtain sensitive information that is quite irrelevant to the inspection process. Robust policies are necessary to deal with information within the inspection process. Such policies should address issues of handling, retention, confidentiality, commercial and third party ownership, destruction, and storage.

- 3.7. Agreements on sensitive information.** All parties must agree to procedures for handling, access, storage, release, and final disposal of sensitive and confidential material. This may be a contentious issue, especially considering the degree of access by the inspected party to inspection data. For example, Iraq desired, but was denied, access to much information possessed by UNSCOM and UNMOVIC regarding suspected WMD activities. Similar concerns may arise in the direction of third parties, such as supporting laboratories, other states and agencies.
- 3.8. Balancing information.** The inspectorate chief will have to balance, on the one hand, the need to protect information whose release might lead to proliferation of illicit activities, against, on the other hand, the desire to be seen acting in an open, even-handed, and transparent manner. The importance of preserving human rights such as privacy and the safety and security of personnel must also be heeded. Furthermore, the proprietary nature of commercial information may need to be respected where it does not directly involve a WMD program. Inevitably, the policies and practical pursuit of inspection objectives will involve a series of compromises.
- 3.9. Expert advice.** Any new inspection group will require specialized expertise. Such advice must be timely, of high quality, and seen to be unbiased. It should be anticipated that there would be an early requirement for numerous experts drawn from around the world. Their role will be to provide advice on the technical aspects of the inspection process and ensure continuity, quality control and consistency. Such experts can provide intellectual rigor and help to maintain technical correctness. It may be possible to find such experts among the individuals already contributing to existing inspection environments. States may be approached to contribute suitable experts and/or it may prove possible to identify and recruit individuals directly.
- 3.10. Continuity of quality expertise.** Problems may arise if external experts are retained for a prolonged period. Inevitably, individuals will depart for various reasons and suitable replacement candidates must be found. Experts should be selected and appointed according to the needs of the inspectorate. Political intervention can compromise the quality of individuals and the value of the group. The inspectorate will, without fail, be degraded if persons lacking relevant technical expertise are appointed. The head of the inspectorate should be certain that there is a clear distinction between experts who provide technical knowledge and staff who provide political advice.

3.11. Political relationships with other states. The chairman needs to maintain support for the inspectorate's activities, primarily through transparency and objectivity. Although the task of an inspection regime may be operationally defined in terms of a series of straightforward reports on technical objectives, this represents only part of the work. There is inevitably a political aspect to the chairman's responsibilities involving the relationship with concerned states, and relationships with these states must be sustained to retain their confidence in the work of the inspectorate. To some extent, public statements and supplemental material from the agency's public information officer(s) can support this role. The choice of political advisors is crucial. Selections should be made following careful consideration of the perspectives that such advisors may represent as well as their diplomatic and negotiating skills. (Some of the topics the IAEA has sought to discuss with Iran are not specifically called for in the Iran IAEA Safeguards agreement. For example, there is no explicit obligation of Tehran to respond to IAEA queries about suspected military activities connected with its declared civilian nuclear program. This has been a matter of persuasion by the IAEA.)

3.12. Validation. Quality control is required to ensure high standards of professionalism and to avoid "group think" biases within the inspection agency. The structure and management of any inspectorate should have built-in controls to ensure consistency and adherence to the mandate and established procedures. Assuring technical and analytical rigor may be accomplished with an independent body, possibly external, that performs regular reviews or audits of the inspectorate's work. (Both UNSCOM and UNMOVIC made use of a college of commissioners to periodically review the inspectorate's work.) Ensuring that the inspectorate reflects a cultural range of experts from around the world may further reinforce credibility. This will also mitigate the risk of some sort of bias. It is the responsibility of the leadership to see that the process of assuring quality control is continuously examined.

3.13. Existing agencies. A new mandate may overlap or subsume arrangements covered by existing arms control regimes, or have areas of concern that are similar. (The UNSC Resolution 687 of 1991 on Iraq balanced the existing nuclear inspection standards of the IAEA with those of the new UNSCOM inspection organization.) It is important to develop a cooperative relationship with other relevant agencies to coordinate common efforts and assure consistent assessments.

IV. Start Phase and First Report

Following the adoption of a mandate, the next task for the inspectorate is to make an initial implementation plan (which may constitute the first report of the inspectorate's head to the commissioning (supervisory) body). The plan will explain how the mandate will be carried out in practical and administrative terms. It will also indicate the powers and procedures to be negotiated as implementation proceeds. In addition, it will indicate requirements for resources and detail the concept of operations as well as an initial plan for inspections. This report may simply inform the supervisory body, or may be used to elicit approval for the planned course of action.

- 4.1. Detailed planning.** A small core group of staff to support the chairman will be necessary as soon as the regime has a mandate. The range of required skills will include technical and regional expertise as well as financial, legal, logistical and administrative competence. These will form the chairman's initial planning team. Taking the overall objective defined in the mandate and breaking it down into individual actions for the inspection process, the team will create detailed inspection plans and define the target of each activity during the inspection. Planning must cover all aspects of the inspectorate work as dictated by the nature and extent of the operation, with particular attention to the safety of the inspectors. Planning will include: travel, training, medical considerations, logistics, administration, and analytical, advisory and language services.
- 4.2. Rights and privileges.** The effectiveness of the inspectors' work is heavily dependent on the rights and privileges they are accorded. They should have appropriate diplomatic status with the attendant immunities and responsibilities. There must also be specific rights for inspection activities including access, freedom of movement, ability to use technical equipment such as sensors and imagery, and permission to take samples and employ other inspection techniques. Limits on inspection techniques will reduce the effectiveness of the inspectors and ultimately affect their ability to achieve the outcome demanded by the mandate.
- 4.3. Concluding subsidiary agreements.** Following the initial report, the process of creating the necessary internal guidelines and covenants with

the inspected party can begin. As noted above, topics that may require procedural documents could include: obligations for support to the inspectorate, access to sites, determination of the status and immunity of inspectors, protocols for sampling and analysis, overflight procedures for aircrafts, and procedures for the conduct of inspections.

4.4. Organizational structure. The chairman will need to determine the structure and *modus operandi* of the new inspection body. While his choices will depend on the specific task(s) and his preferences, there must be a clear chain of command and reporting. The authority of inspection team chiefs in the field must be clear, particularly regarding interaction with representatives of the inspected party. Procedures governing the flow of information, and the various actions to be taken in the event of a specific type of incident, must be specified and understood by the inspectors. Some of these issues may be dealt with during training, others through developing written protocols.

4.5. Staffing.

A. Mobilizing resources. As noted above, once a decision has been made to implement an inspection regime, several key appointments must be made—notably a leader and core staff. Normal methods of appointing and remunerating staff, obtaining and purchasing equipment, and finding funds to cover the costs of a new, rapidly expanding and very active organization may be difficult. Urgency may force the agency to seek fast-track options such as recruiting *gratis* personnel, accepting equipment lent by sympathetic states, or using facilities and services made available free of charge (for example the United States provided the services of a U-2 surveillance aircraft to support inspections in Iraq). These may be temporary measures, but will inevitably raise questions about the independence of an agency. The chairman and the officer in charge of finance and logistics may have to make essential decisions about resources with respect to both the efficiency and perceived credibility of the inspection undertaking.

B. Leadership. As noted above, the selection of a leader is critical. Allied to this is the choice of the organizational structure of the inspectorate. A direct and easily perceptible chain of command must be created, along with clear definitions of the delegated authority and the responsibilities assigned to each person in charge. In circumstances where immediate action is required, it is unlikely that lengthy and elaborate recruitment procedures can be accommodated. Ad hoc hiring or recruiting may be necessary to fill posts quickly. This may have long-term consequences if it is difficult to replace such staff when

they prove unable to fulfill the requirements. An alternative source of staff may be seconded (or *gratis*) experts from supporting governments. This too has consequences, as the professional neutrality of such personnel might be open to criticism or suspicion. On the other hand, such personnel may be more readily dismissed if they do not perform or are no longer needed.

C. Technical experts. First-rate technical experts may be more difficult to locate and recruit than administrative and logistical staff. Because of the unique nature of weapons inspections, qualified and experienced specialists may be found in limited places, e.g. weapon companies, military units, government services or the ranks of those who have retired from such employment. The number of candidates may be small and they may be expensive to employ. Moreover, persuasion may be needed to convince their current employers to release them. Compounding the problem of scarcity of talent is the need to seek a balance of experience, skill, age, geography, gender and cultural background. All the above factors contribute importantly to the effectiveness and credibility of the inspectorate.

D. Competent inspectors. Talented technical experts are not necessarily talented inspectors. The process of recruiting and training, even if undertaken in urgent circumstances, must allow for development of unique inspection related skills. Ideally, any new inspection regime has the opportunity and the competence to draw upon experienced personnel who can train the new staff. (In the longer run, the agency should incorporate possibilities for staff advancement both professionally and managerially.) In addition to excellent scientific, engineering or other qualifications, inspectors should have a range of general skills. These should include: good powers of observation, good communication ability (both written and orally), able to cope with high levels of stress, and able to negotiate and work as team players. Candidates must also be prepared to spend a great deal of time away from their base and be ready to cope with unexpected circumstances and frequently unpleasant environments. They must also be physically and medically fit. Finding such people is challenging. Most candidates will require training to develop and adjust their skills to apply them to implementing the policies and procedures of an inspection regime. In summary, a recruitment policy and its implementation system is a critical element in the success of the regime.

4.6. Data management. From the start, it is essential to design and maintain a data management system. Information is the essence of an inspection regime and managing that data determines the success of the effort. Database management tools and practices can be emulated from other agencies such as the IAEA or OPCW. There are also advanced commercial

systems in use with direct application to inspection needs. Mistakes in selecting the data management system will cascade into enormous problems later. Conversely, this is an area where technology and software are constantly evolving in ways that can improve inspection and analytic capabilities. For example, a system could organize data based upon geospatial coordinates and be searchable by the use of conditions such as names, dates and other terminology. Future inspection tools could easily be developed using custom applications for smart phones to record standard formatted data and transmit directly to the headquarters database.

- 4.7. Inspection equipment.** The equipment required to conduct inspections will vary widely. Equipment for sensors, sampling, imagery, motion and tampering detection can all be brought to the service of the inspection process. Today this equipment is generally becoming smaller, sturdier, more accurate, more capable and more durable. Inspection agencies need to keep their equipment holdings and procedures under constant review. Occasionally, technology can overtake mandates. An agency may find that it acquires capabilities in excess of its original mandate to investigate.
- 4.8. Communications.** Local on-site communications tools during inspections will be used for safety, command and control, logistical support and the transfer of data. A local radio network may be established, or simple cell phones employed, depending upon the local state of affairs and security needs. Transmission from inspection teams to the headquarters office must also be provided. Security, flexibility and data rate considerations will drive these decisions. Real-time video from the field can be a useful capability.
- 4.9. Budget.** As noted above, the creators of the inspection system should ensure sustained funding. Finding sources of funding should be the responsibility of the supervisory body – especially given the political implications of donor support if that is used. On the other hand, it is the inspection body’s responsibility to make projections of resource requirements and assure they are continuously updated. Should new techniques or tactics become necessary (such as purchasing commercial satellite imagery), the cost implications need to be considered. Moreover, if less expensive methods are effective, they should be pursued (such as remote sensors instead of on-site inspections). As with all enterprises, cost-benefit judgments must be made by the supervisory body.

4.10. Timelines of activities. Detailed planning includes projecting a timeline to achieve the inspection goals. This schedule should include such activities as staff hiring, procurement of equipment, deployments, and reporting. As planning is refined the staff can start to identify other critical deadlines to be met during the inspection process. In this way, managing an inspection organization is similar to other enterprises.

4.11. Training. No matter how urgent the initial inspection may be, some training will be necessary. Training can be time consuming depending upon the background of the recruited inspectors. By deploying experienced personnel, the time needed for initial training may be kept to a minimum. Decisions are required about who should conduct the training, where this should be done, and what resources are necessary. Any delay in obtaining a sufficient number of trained personnel could be reduced by establishing a mechanism to identify and sustain a cadre of pre-trained personnel. Independent of any existing inspection system, there would be great benefit from an international pool or registry of pre-trained individuals representing a wide range of states, disciplines, and skills. Such a cadre could be maintained after initial basic training by regular refresher courses and training exercises. Training on technical and cultural issues should be followed by team building and investigation skills development. To date, there is no such registry, and recruitment of experienced inspectors is ad hoc at best. Note: the training addressed here is not related to weapons design information that could pose proliferation concerns. Rather, it relates to the specialized skills and procedures employed during inspections.

V. Toolbox

As noted earlier, the inspectors' basic material is information. The original information will come from the source of allegation or declaration that led to the establishment of the inspection regime. Most of the inspectors' tools will involve ways of acquiring, analyzing, and storing information from all possible sources.

5.1. On-Site inspection. Most inspections will involve visits to locations directly or indirectly involved or suspected to be involved with WMD. Such visits offer an opportunity to collect samples, interview local staff, and examine documents and computers as well as to assess many practical aspects of a program. Planning preparation requires obtaining reference material such as maps, site diagrams, historical imagery, building and construction layout, declarations, previous inspection reports and other relevant background information. From this, objectives are established and plans can be developed for inspecting the site. Other factors include whether advance notice will be given, the amount of translation and other linguistic support available, the degree of intrusiveness, dealing with site personnel, and how information is to be recorded and evidence collected. Care should be taken to minimize any disruption of legitimate activities at the site in question. With sites that are not directly or exclusively involved in a WMD program, such as 'dual-use sites', there is a fine line to be drawn between intrusiveness and the need to respect confidentiality for legitimate activities. Site visits often involve some inherent problems. The length of the visit is usually limited, and gaining access may lead to a confrontation. The presence of experienced inspectors in these circumstances can help achieve a non-confrontational and positive outcome. Site visits require a great deal of planning effort, time, and resources.

5.2. Sampling and analysis. Collecting and analyzing information and materials (sampling and analysis) requires careful advance preparation. Decisions must be made as to if and when samples should be taken and whether a distinction is to be drawn between samples taken for forensic/compliance purposes and those taken for environmental or minor investigative purposes. Other matters to be considered are the splitting of sam-

ples either to share with a host or to retain as “controls,” and how to maintain the chain of custody. The procedures need to be set down in an agreed upon protocol (as part of guidelines, noted earlier) that takes account of technical, forensic, and legal requirements. Reference laboratories will need to be identified and arrangements made for employing their services. (It should be noted that transport of particular WMD samples might not be possible on commercial carriers. This can be a major complication.) The ability of an inspection regime to handle sampling and analysis well may provide a strong element of deterrence. It should be noted that results of sample analysis would be perceived as the most convincing evidence of the presence or absence of prohibited activities.

- 5.3. Interviews.** The testimony of professionals engaged in WMD-related jobs in an inspected country represents one of the most fruitful sources of information about weapons programs. Typical interviewees will include government officials, military staff, plant managers and workers. Interviewing such people is among the most difficult and challenging tasks faced by inspectors. Individuals must be identified and made available for meeting with inspectors. Modalities must be established for interviews. Among the details of concern are: who may be present; what form of recording is acceptable; whether or not the interviews can be conducted on-site; how to attribute the testimony collected, etc. Procedures will be necessary to request and obtain interviews with specific named individuals or specific individuals involved in a suspect activity. This reflects the importance of obtaining *bona fide* first-hand evidence, not hearsay. Interviews and associated activities can be highly sensitive and discretion is necessary.
- 5.4. Documents and digital media.** Inspection teams need to be prepared to inspect electronic media. Depending upon the access permitted, various techniques can be used to search for telltales of non-compliance. Computer forensics and advanced data search is a rapidly evolving field and inspection applications of such and other new techniques will require continuous policy review. In principle some inspection activity can be done remotely if that is within the range of permitted techniques.
- 5.5. Sensors and tagging.** Using remote sensing and tagging can extend the reach of inspectors. The capabilities of such equipment are constantly improving. Many physically observable facts can now be measured in real time and the results passed immediately to monitoring posts. Similarly, equipment, containers, stores and even buildings can be tagged with tamper-indicating seals, and closed circuit TV or other sensors can

monitor such seals remotely. All of these measures can help inspectors to become more confident concerning the level of activity at a site. The role of such techniques will grow as technologies improve. They can reduce, but not eliminate, the need for on-site inspections.

VI. Conduct of On-Site Inspections

Inspections take many forms, and may be classified in various ways. It is important to acknowledge that however they are defined, inspections are attempts to either collect information, or carry out specific actions like weapons destruction -- or both. As noted above, for some inspections, inspectors may be welcomed by a fully cooperative state and given the access they request. For other inspections, the process may be coercively imposed on the inspected party, and the inspectors will confront obstruction and hostility.

6.1. Inspection process. The inspection activity may commence with on-site investigations seeking baseline information about the nature and extent of weapons programs. Such inspections can be wide-ranging and intrusive. Their aim is to survey the WMD infrastructure under investigation in sufficient detail to provide the supervisory body with the information to make decisions regarding future weapons inspection programs. Later in the process, more specialized types of on-site inspections may be required in order to implement further monitoring or inspection measures. Whether or not they are needed will depend on the specific issues raised; such activities might include destruction (for example, inspectors have been called upon to destroy chemical weapons in Libya, Iraq, and other locations); investigation (such as accounting for claims about the civil vs. military applications of certain laboratories); or monitoring (at declared sites such as nuclear reactors). Consideration must be given to other means of collecting information, such as by helicopters, remotely piloted vehicles, fixed-wing aircraft and satellites. To support a compliance mechanism, carefully prescribed routines or monitoring protocols may be implemented to detect indicators suggesting non-compliance.

6.2. Inspection types. Inspections may also be categorized according to their subject type or objectives: a biological weapons inspection is different in content and execution from a nuclear inspection. It may also be appropriate to use a multidisciplinary approach in case facilities with multiple potential applications (e.g. industrial facilities that could be applied to nuclear or chemical weapons purposes) are to be inspected for illicit activity. A multidisciplinary approach can be particularly useful when the subject of the inspection regime is defined broadly with respect to

proscribed activity. The categorization of the desired inspection activity must be consistent with the overarching mandate. The nomenclature is politically sensitive. Practical inspection procedures should be flexible enough to be configured in ways suitable to obtain the information needed. Events in the field may force teams to reconfigure their mode of operation in order to meet an immediate requirement.

- 6.3. Inspection sites.** Inspection sites may be categorized in several ways. Sites that are identified by the inspected state and notified to inspectors are usually termed “declared sites.” However, inspectors may wish to inspect sites that have not been declared. Countries have sites that are sensitive for reasons unrelated to WMD and they may not accept international inspectors to locations of national importance. Such inspections give rise to many issues, especially if the site in question has a primary function that is not related to WMD, but that is deemed sensitive by the inspected state. The procedures for inspecting a “declared” site will therefore be different from that of an “undeclared” site. In both cases modalities will need to be established.
- 6.4. Designation of and access to sites.** It is necessary to have procedures for designating a site for inspection. These will include defining the site in terms of location and perimeter. Sites may be designated for inspection according to predetermined qualities such as geographic location, function, or administrative affiliation. Inspectors may mark boundaries on maps or on aerial photographs to specify the precise limits. Procedures for gaining access to the site and to buildings and areas within the site must be agreed or accepted by the inspected country as well. For example, who must be informed? What is a reasonable amount of time to allow for gaining access? What will be the procedure if access is not granted?
- 6.5. Inspection notification.** Inspections may be carried out with different degrees of warning or notification. A snap decision to make an inspection with no prior notice may be merited by unanticipated but significant information. Most inspection activity, however, will involve a period of prior notice. Lead times are dictated by administrative and logistical requirements rather than by operational factors. “No-notice” inspections have advantages with respect to confidence building (the sites are less likely to be “cleansed” of potentially incriminating evidence) but they may cause friction with the inspected party. Much will depend upon the scope and intent of the mandate.

- 6.6. Inspection teams.** Inspection teams might be of various compositions depending on the nature of the inspection. Some team members may be experts in specific types or aspects of the WMD under investigation. Others may possess general technical skills, and yet others will have more commonplace skills such as communication, report writing, logistics, navigation and safety. As noted above, there should be a diversity of nationality, gender, age and cultural background. Additionally, there needs to be a breadth of experience to provide continuity. In all cases, success depends upon having a capable, experienced chief inspector in the field. Without good leadership, a team can be ineffective and commit significant mistakes. Good inspection team leaders take time to develop. They may come from the pool of inspectors who have previous experience—perhaps in other inspection regimes. Finally, it is important to note that the term inspector can be applied to a wide range of individuals, from those with a single experience in a single country, to those with a career of relevant work. The inspectorate can mix experienced and inexperienced personnel to build a capable team. A team can benefit from novel perspectives with new inspectors.
- 6.7. Language.** It is unlikely that all personnel will possess a common language. The provision of translation and deeper linguistic skills should be woven into all levels of operations. Also, interpreters in the field will need understanding of technical and specialized terms to be able to convey relevant information. Consideration must also be given to the translation of other pertinent expert-related information encountered during inspections.
- 6.8. Day-to-day operation.** Conducting inspections must be coordinated between the headquarters and the inspection teams in the field. Operations in the field involve a range of challenging factors beyond the basic inspection objectives: liaison with the inspected party or local officials and population, the need to understand and respect local customs and culture, understanding of the political climate of the country/site subject to inspection, and finally a resolution of the frequent problem of time zone differences between headquarters and teams in the field.
- 6.9. Reporting.** The entire inspection process may be viewed as a means of producing a report to the commissioning body. No matter how insightful the inspection activity may be, the value of all efforts stands or falls by the quality of the reporting. The procedures developed must ensure a clear separation between reporting of facts and expressions of opinion or comment.

6.10. Reporting process. Measures must be taken to ensure a consistent reporting process. There should be standard formats to facilitate database entry and ensure that material is searchable and understandable, now and in the future. Reporting may include the handling and storage of physical material such as documents, photographs, technical samples, and even large equipment. However, for the most part, pertinent information is in digital format. (It should be noted that the OPCW has adopted ISO standards for documentation.) Reporting from the field can include a variety of types: daily status reports covering housekeeping and maintenance affairs, regular compliance or monitoring assessments, and, in the case of specialized inspection teams, final inspection summaries. Reports will eventually form the historical archive and should be written with that in mind.

6.11. Reporting policy. The reporting procedures must specify principles for the collection and handling of information and material, as well as for how it will be analyzed, assessed, and reported. Policies also need to be developed to cover the extent to which the collected information will be shared. Procedures must cover what already is collected, what should be collected, and what seems to be difficult if not impossible to collect.

6.12. Analysis and assessment. This is a crucial phase of the inspection process and may take place under great pressure. Technical discussions among team members may be energetic and disagreements are normal. It is vital to have steady and firm leadership that can maintain the integrity and well-being of the inspection team and enable the results to be produced as quickly as possible because the demand for findings in the form of a report must be accomplished. Advance consideration of procedures for dealing with minority opinions in teams can be useful. The responsibility for the content of the report must be determined in advance. It may lie solely with the chief inspector or with the team as a whole. The division of responsibility, between the inspectorate's head and the supervisory body, for assessment and analysis must be clear (as highlighted in Section 2.7).

6.13. Dissemination. Once the system of inspection reporting has been established, various subsidiary tasks will remain. In order to make material accessible to a range of readers, it is essential to identify staff that can interpret technical material and produce reports that are readily understood by a non-specialist audience.

6.14.Credibility. The reporting by the chairman to the supervisory body must be credible. Reporting must be as open and comprehensive as possible. Whatever the nature of the information collected, it must be assessed for veracity. High standards must be sustained to discriminate between facts and things that have yet to be proven. Ultimately, the standards applied may affect whether assessments on compliance can be made. This is a fundamental issue and needs to be addressed by the head of the inspection agency (as noted above in Section 2.3 Non-compliance, and Section 2.6 Burden of Proof). It is essential to specify the method of reviewing such assessments – for example, peer review within an agency, or audit by a panel of external experts.

6.15.Archiving information. Inspection organizations will face growing quantities of data. Information will be collected and stored from its first day of operation. This growing archive will serve as one of the most valuable resources for both inspectors and headquarters decision-makers alike. Moreover, historians and academics may at some point seek access to the records. At an early stage, policies should be developed to clearly specify the procedures for determining what is to be kept, who has access, and who is to be responsible for handling, watching and managing the material.

6.16.Public relations. Public relations are a vital aspect of any inspection regime. The public statements of such bodies are as much part of their day-to-day function as inspections are. Depending upon the desires of the supervisory body, the inspectorate head may sustain a public relations posture that promotes understanding of the inspectorate's mission and activities. This will aid in the event that it is necessary to explain or defend difficult situations or errors.

6.17.Safety. The safety of inspectors is paramount. Most WMD-related inspections are bound to face hazards from the dangerous materials that are the subject of inspection or simply present at military and industrial facilities. Due to the very nature of some inspection activities, such hazards are difficult to foresee. The best precaution is to use experienced, well-equipped and well-trained personnel whose operations are governed by realistic, clearly defined procedures, in line with internationally accepted scientific and industrial norms. Safety training must be conducted, both initially and periodically, to inculcate and maintain appropriate safety standards among inspectors. The inspection agency must work to its own standards, not those of the host state. This may lead to clashes concerning safe working conditions, which will have to be settled

by careful consultation. The creation and validation of items such as procedural manuals takes time and effort. In the interests of standardization, attempts should be made to adopt tried and tested material from comparable bodies. Not to be under-estimated are the health challenges caused by stress, unaccustomed food and lifestyle, adjustment to a different climate, endemic disease, and at times employment in dangerous or poorly maintained facilities. Furthermore, it is important to retain records of an inspector's health and inspection activities. Such data may be valuable to determine if subsequent inspector health issues are related to previous inspection activity exposures.

VII. Ending Inspection Regimes

- 7.1. Hiatus or termination.** From its inception, an inspection regime must plan to deal with interruptions to its work and, ultimately, its termination. This may occur because the objective has been achieved, because a mandate has expired, because the process has been overtaken by events, or because of inadequate political support. It may also be triggered by violations or non-compliance. Each eventuality will require a different response. There must be a clear understanding as to whom, or which body, makes the appropriate decisions.
- 7.2. Legacy.** When it has been decided to end the inspection regime and close down its headquarters and support, there is much to be done. Plans need to be in place to deal with staff, archives, website, hardware, final reporting and the like. Some inspection related materiel may require retention for legal reasons but may have to be kept confidential. Items may have sufficient academic, historic, scientific significance to warrant their retention in international collections. Establishing an archive will require careful planning and execution.

