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The Impact of Confidence-Building Measures on Information Policy

Agreements made within the Conference on Security and Cooperation in Europe (CSCE) framework will have an enormous impact on many areas of society including such things as industrial policy, economics, and even the structure of decision-making procedures. Their influence on the domain of information policy is of particular interest because of the relative importance of that domain and because of the recency of its development as an area of policy-making, resulting in openness to influence from other fields. The forms of impact on communication and information policy include establishing constraints on ways in which decisions can be made regarding other information policy issues, such as development of the infrastructure, access to information, rules for trade, etc.; development of and experimentation with a wide variety of information policy tools; and by sensitizing policy-makers to flexibility and innovation in policy-making involving informational tools.

Here, trends in the development and use of confidence- and security-building measures are analyzed. Examination, in particular of the import of these trends for information policy, both within nation-states and internationally, will hopefully provide some insight into the role confidence- and security-building measures will play in constructing the conditions of societies across the globe in the future. The CSCE has already had an impact on confidence-building measures incorporated into other treaties.

Information policy is defined here as a policy that affects any stage of an information production chain including information creation (creation, generation and collection), processing (algorithmic and cognitive), storage, transportation, distribution, seeking and destruction.

Trends in the development and use of confidence- and security-building measures

While use of information policy techniques for the purposes of war has a long and classical history, the beginnings of the use of information collection, processing, flows and use for peaceful purposes can be placed with Bernard Baruch's proposal in 1945 that the United States and the Soviet Union engage in regular mutual inspections as a way of building the confidence that would prevent future wars, a proposal that Stalin rejected as a cover-up for espionage. During the 45 years since this first proposal, information policy techniques under the name of confidence- and security-building measures have been explored at some depth conceptually, discussed endlessly, and changed radically in number and nature over time. By 1990, several dozen information policy techniques have been formalized in international treaties, and such techniques themselves dominate an average of 85% of any defense treaty text. Significant trends in the development and use of confidence-building measures include quantitative and qualitative change, globalization of the concepts, and a linkage with environmental concerns.

Quantitative change in types of confidence-building measures

The number of different kinds of confidence- and security-building measures, which have reached the stage of being presented in treaty proposal format, has greatly multiplied over time. While early proposals focused simply on inspections and the provision of basic data, several processes have contributed to an increase in the number of different types of confidence-

building measures. Categories in use today, both within and without the CSCE, include exchanges of security theory and doctrinal discussions, notification, reporting, fact-finding, data exchange, annual calendars, observers, personnel exchange, on-site inspections, national technical means (electronic sensing), production line monitoring, monitoring of storage sites, consultation, management harmonization, data verification, media access, prohibition of propaganda, mandates to avoid deception, crisis communications, facilitated communications, and global databases and institutions. Additional concepts under discussion include nuclear weapon "signatures", a ban on coded radio traffic, monitoring of military activity "norms", enhanced crisis codes, perimeter and portal monitoring, continuous transfer point (border) monitoring, calculation verification, and establishment of a global equipment pool. Factors influencing this multiplication of types of confidence-building measures include the following.

First, an increase in the level of detail required has resulted in an increase in types of confidence-building measures requested. Thus what was originally cast as a request for data about troop movements became over time separate detailed requests for information about different types of troops and their movements in ever-smaller units. A request for data about weapons becomes numerous separate requests for data about specific weapons, which themselves follow upon lengthy debates about the meaning of a "light tank", a "missile launcher", or a "truck".

Second, additional types of information have been requested about traditional subjects of data collection. In addition to asking for information about the number of certain types of troops, for example, negotiators began to ask for information about how those troops were trained and about the structure of the communication system internal to the military organization. Such qualitative changes in the nature of confidence-building measures, discussed in more depth below, in themselves introduce quantitative changes.

Third, the range of matters that are subject to data collection has expanded. The military purview has been extended to include such areas as

manufacturing plants and research laboratories. Flows of trade and commercial information are now considered as critical to mutual confidence and security as flows of data about troop movements. As the concept of environmental security as a critical element of national security takes hold, flows of environmental information policy tools are applied multiplying the number of measures in the entire corpus of information policy measures incorporated into treaties.

Fourth, technological development has stimulated an increase in types of confidence-building measures. Both as offshoots of research and development intended in other areas and from research aimed at development of techniques for use as confidence-building measures, new technologies have made technically possible new types of confidence-building measures, again extending the numbers in uses. Both seismic monitoring and aerial surveillance, for example, depended upon technological development in order to become meaningful ideas. On the other hand, an inability to develop technologies or techniques for specific purposes means that the use of confidence-building measures may not be feasible, with verification of chemical weapons agreements - agreed by all but the Germans to be technically impossible - providing a critical example.

Fifth, the use of confidence-building measures in themselves triggers the need for further types of measures, since the ability to deceive offers an ever-receding horizon of adequacy of knowledge. This is what might be called the "Potemkin Village" syndrome: for every agreement to collect, exchange, or process a certain type of information, there is counter-research, development and planning to enable deception under the agreement's conditions. The inevitable result is the need for more kinds of information.

Qualitative change in types of confidence-building measures

Qualitative change has also marked the conceptualization, development, and use of confidence-building measures. Today such things as harmonization

of accounting procedures, production line monitoring, and doctrinal discussions are included within the category of confidence-building measures. Again, a number of factors are responsible.

First, experience with confidence-building measures in and of itself has generated ideas for new types of measures. In some cases, problems with actual use of certain types of measures have suggested the need for alternatives. Difficulties in determining just what is being carried on trucks leaving weapons manufacturing plants, for example, leads to the idea of production line monitoring, and to the use of powerful x-ray equipment. Exposure to questions raised but unanswered by the use of more traditional techniques, such as on-site inspections, thus lead to the development of new concepts. On the other hand, success with the use of relatively simple confidence-building measures such as inspections also encourages development of new types of measures to widen the domain of confidence and strengthen the feelings of security.

Second, in some cases power and technology disparities between countries have led to new ideas; as experimentation with confidence-building measures showed the significance of the technology gap, suggestions for global pooling of equipment and for training of individuals from developing countries in on-site inspection techniques arose, for example.

Third, technological development has also lead to qualitative change in types of confidence-building measures in use. Development of new types of information collection, processing, and distribution equipment makes possible types of surveillance and verification that would otherwise be impossible. The incorporation of new technologies into weapons and weapon delivery systems has also generated a need for new types of confidence-building measures. As weapons delivery systems, such as the Stealth bomber, give way to more traditional types of information collection equipment, demands for the sharing of encryption techniques for the telemetry associated with deployment have emerged.

Fourth, shifts in the geopolitical situation have encouraged further development of confidence-building measures. Thus the growing independence of Eastern European countries from the Soviet bloc lead to a change in the way inspection quotas were set up from bloc-wide quotas to quotas for specific nation-states.

Both geopolitical change and technological development have contributed to the fifth factor effecting qualitative change in confidence-building measures: changes in basic security concepts and theories. The impact of the development of new information technologies on the organization of military establishments as well as weapons and delivery systems changed the very nature of war and therefore of security. This impact was magnified by a new geopolitical situation characterized by the lack of identifiable enemies, the decline of formerly hegemonic powers, growing recognition of the significance of global interdependence, and the belated entry of environmental and qualitatively different approaches for ensuring confidence in national and international security.

One group of qualitatively different confidence-building measures includes a variety of ways in which a harmonization of management concepts and procedures is sought. Specific suggestions and practices have included standardization of plant management forms, harmonization of accounting procedures, and a sharing of management ideas.

A second significant group of qualitatively different confidence-building measures involves the attempt to reach a greater understanding of each other's security concepts, perceptions, and realities. These have included doctrinal discussions, a sharing of threat perceptions, and top-level discussions of security theory. In addition to facilitating mutual understanding, such processes also encourage harmonization of approaches to security questions.

Globalization

While the CSCE applies only to the European setting, over the past decade discussions about the use of confidence-building measures have spread to other parts of the world, including Africa, the Middle East, South Asia, and Latin America. The five Central American countries now include confidence-building measures such as inspections in treaties, and a UN force is now in place carrying out variety of procedures. Canada has made a point of subjecting itself to inspections as a way of encouraging North American governments to participate in information exchanges.

There is a technological argument for geographic expansion of the use of confidence-building measures. Existing information collection systems are often global in scope, even if aimed at a particular region. The US seismic monitoring system, for example, includes stations in over 40 countries around the world. The use of satellites for surveillance makes the global argument even more clear.

Discussion about potential homes for future use of confidence-building measures also encourage a global outlook. There are more and more frequent suggestions that an International Satellite Monitoring Agency be established that would use resources from all countries to monitor events globally, with the information available also to all. Other suggestions extant for incorporation of confidence-building measures responsibilities into the mission of either existing or new international agencies.

Last, the linkage of the use of confidence-building measures for arms control purposes with environmental concerns also encourages a global outlook. Since it is clear that environmental problems are by definition global in nature, use of information collection, processing, and distribution systems built for arms control with environmental ends as well, would encourage the purview of such systems to be global.

Linkage with environmental concerns

A primary source of interest in disarmament in the Soviet Union has been historically a concern of environmental degradation. In recent years, for example, there has been massive resistance in the Soviet Union to nuclear testing based on health hazards that in some cases even led citizens to set up their own monitoring programs. The US-based Natural Resources Defense Council, a non-profit environmental organisation, has had a primary role in experimentation with various confidence-building measures. In 1986, the Natural Resources Defense Council opened a discussion, stalled for 40 years, on the use of monitoring for treaty verification in a meeting, where private citizens with Soviet scientists, also acting as private citizens, discussed seismic monitoring of nuclear testing. Within three months the first sites were established, and the tone of governmental negotiations was irrevocably changed.

Environmental concerns have had an impact on the concept of national security, which is coming to include the notion of environmental security as an essential ingredient. This trend is likely to become stronger as sensitivity to environmental problems grows among all sectors of society. From a more pragmatic perspective - but leading towards the same end - governments have begun to consider the idea of using environmental surveillance systems as a cover for other ends. Currently there are discussions both about using information from existing or proposed satellite surveillance systems for global environmental monitoring, and about establishing a separate surveillance system to serve these purposes.

Impact on domestic and international information policy

Trends in the development and use of confidence-building measures have an impact on domestic and international policy in a number of ways.

These influences are felt both in the substance of policies, and in the nature of the policy-making process.

The direction of interaction between domestic and international policies is various. In some cases, such as in technical standard-setting, national concerns will drive what happens in the international arena. In others, such as in surveillance, domestic practice is to some degree driven by international events and agreements.

Impacts on domestic information policy

Constraints. Decisions made on confidence-building measure systems have probably the most significant impact on domestic information policy by establishing constraints within which other decisions must be made. The basic shape of any domestic information policy emerges within the context of national security and international concerns and decisions: internationally, these concerns affect the way states negotiate on a range of information policy elements.

Use of resources. Various types of resources are less available to serve domestic purposes than national security goals because they are devoted to the latter, ranging from available spectrum to research and development dollars.

Access. It is one of the contradictions within many states that the desire for a free flow of information internationally is coupled with restrictions against access to information, sometimes even the same information, by domestic players. At times, there are direct conflicts between policies developed for different purposes. In the US, for example, export regulations prohibiting the transfer of advanced technology and information about those technologies directly conflict with some of the requirements of confidence-building measures.

Industrial policy. National security concerns play a big role in determining how national research and development priorities will be set, in

turn establishing the basic shape of industrial policy in the area of information and communication technologies. In an early example of this, Kodak development of aerial and other specialized photographic technologies was much stimulated by large contracts from the US government motivated by a commitment to develop an aerial surveillance system. Similarly, technologies and research techniques dealing with seismic events developed rapidly following governmental commitment to systems for monitoring underground nuclear explosions.

Standard-setting. Complementing the impacts of research and development funding, national security needs often to determine technical standards for information and communication equipment, in turn defining standards for other domestic purposes, establishing the parameters of state positions in international negotiations.

Domestic surveillance. One of the least discussed impacts on domestic information policy is the fact that any surveillance system that is part of a system of confidence-building measures is directed at the population of every country about which information is collected. That is, discussions about surveillance are always centered around getting information about "the other", ignoring the fact that "we" are also being watched. This facet of confidence-building measure deserves more public discussion among the citizens of every country involved.

Impacts on the policy-making process

The development of confidence-building measures has two types of influence on the shape of information policy-making processes.

Expanding the tool-kit. The wide range of confidence-building measures sets an example for information policy-makers working in other areas by demonstrating the range of different types of tools that can be developed. This impact is felt in a variety of areas, including the definition of

appropriate players to serve as actors, mediators, and regulators: realms of activity in which it is appropriate to act: and types of techniques available.

Expansion of the policy-making tool-kit is particularly important at a time when the whole domain of information policy is undergoing intense examination, combined with a serious questioning of some of the traditional types of tools used, such as content regulation.

In areas such as access, discussions about confidence-building measures provide a matrix of possibilities that apply to other types of information policy decisions as well. At one extreme, processed data from the US IRIS system of global seismic monitoring is intended ultimately to be available to any individual in the world with a personal computer and a modem. At the other extreme, there have been times when the US and USSR have agreed not to make public, or available to any other countries, results of mutual inspections. In between, there are suggestions that information is available to all interested parties, to all signatories of an agreement, only to those engaged in a dispute, only to neutral mediator countries, or only to the state collecting information. Information can be made available in raw or processed form. It can be processed by an involved or a neutral party, etc.

Providing a model of innovation. One of the most important ways in which the development of confidence-building measures can have an influence on information policy-making processes is by providing an example of innovative approaches to policy-making. The openness to a range of possibilities, willingness to conceptualize anew the regulatory activities, and agreement to experiment all offer valuable leadership for policy-makers.

Conclusions

Those involved in the development and use of confidence-building measures within the framework of the Conference on Security and Cooperation in Europe should keep in mind that their activities have an

influence outside the defence realm as well. Impacts on information policy-making are among the most important because they have a structural effect on other types of policy-making.