

# Verification Mechanisms in International Environmental Agreements

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## INTRODUCTION

Verification has traditionally been associated with international security-related agreements, such as those dealing with arms control and disarmament. Verification in these cases has explicitly aimed to detect violations and deter potential violators. Information derived from verification procedures has been used to make decisions about non-compliance that in turn may trigger enforcement measures, ranging from diplomatic, trade and economic sanctions, to, as a last resort, military action. In the few cases where non-compliance has occurred, the results of the enforcement action taken have been mixed.

Experience of a broader range of international agreements has demonstrated, however, that verification can provide wider benefits than detecting and deterring treaty violators. The information gathered and exchanged, and the resulting transparency, can increase all parties' confidence that they are working together to implement the treaty. Parties are more likely to implement their own commitments if they are sure that others are not 'free-riding'. In the most co-operative systems, shared information helps parties improve their own implementation and understand the implementation problems of others. Unproductive disputes can be avoided and an effective multilateral response sought. Where information is made available beyond the treaty parties themselves, civil society can also track compliance, further enhancing the effectiveness of a regime.

There is a possibility that verification will uncover deliberate non-compliance. While this provides assurance that the verification system is working properly, it may lead to loss of confidence in an agreement. But so long as effective action is taken to deal with non-compliance, confidence can be regained.

## VERIFICATION MECHANISMS IN IEAS

International environmental agreements (IEAs) have tended to include 'softer' verification mechanisms which emphasise co-operation rather than confrontation. One probable reason is that non-compliance has not been seen as threatening international or national security. For example, if one party protected its wildlife as expected, only to find that another had not fulfilled its obligations, it would be of little strategic importance. However, this attitude is becoming less sustainable with the emergence of environmental problems with transboundary consequences, such as atmospheric pollution, and the negotiation of agreements such as the Kyoto Protocol (to the Framework Convention on Climate Change) whose implementation will have significant socio-economic consequences for the parties.

Other characteristics of IEAs have also conspired towards a soft approach to verification. One is the vague language in which obligations may be couched. Sometimes this is a consequence of the treaty being drafted when the science surrounding the problem and its solution is still uncertain. In this case the effectiveness of the regime will be improved by a verification system that emphasises joint learning. For example, fisheries agreements tend to become more effective over time as parties gather and share data on fish catches, enabling ecologists to model stocks. Unfortunately, in many cases ambiguous commitments are a consequence of parties negotiating lofty and ambitious agreements without consideration for how they will assess compliance. The Convention on Biological Diversity (CBD) provides for conservation of natural resources, research and training, impact

assessment schemes, promotion of public awareness and technology transfer. The ambiguity of most of these obligations makes verification of compliance difficult.

Moreover, commitments may be negotiated without consideration of how to gather the information required to assess compliance. Many environmental activities and entities are intrinsically difficult to monitor. For example, agreements to protect fauna have often been impossible to verify because wild animals cannot be comprehensively monitored. Likewise it is impossible to comprehensively monitor the oceans for the dumping of wastes at sea. In some cases the technology is simply not available to provide the information. For example, agreements to reduce pollutants from point sources depend on the accuracy with which the pollutant can be detected. Where parties are unable to gather the data necessary to monitor their own implementation of commitments, thereby making inadvertent non-compliance a possibility, they are unlikely to support the establishment of a stringent verification regime, especially one resulting in harsh sanctions for non-compliance.

Finally, implementation of commitments is often difficult and effectiveness of actions taken uncertain in IEAs. This is especially the case where there are a large number of actors whose behaviour needs to be changed in order to meet the obligations, as in the case of the Climate Change Convention. The tougher the target, the less certain parties will be that they can comply. Negotiators must realise that they may need to choose between targets which parties are confident they can reach, coupled with an enforcement approach to verification, or more ambitious targets, combined with a softer verification system. Where an agreement is difficult to implement, a combination of incentives and disincentives is often used to encourage compliance.

## PROVISION OF INFORMATION

Regardless of whether a hard or soft verification mechanism is employed, it is important for the success of international agreements that parties' implementation of commitments be monitored. In the case of IEAs this normally depends on parties monitoring and reporting on their own activities. For example, parties to the Montreal Protocol (to the Vienna Convention for the Protection of the Ozone Layer) provide the treaty Secretariat with baseline and annual data on their production, imports and exports of controlled ozone depleting substances. When the data for monitoring an agreement is difficult to obtain or elaborate new structures would be needed, proxy data can be used. A common approach in IEAs is to use trade data as a proxy for environmental data. For example, the Convention on International Trade in Endangered Species (CITES) works by making use of

the fact that many endangered species are killed primarily for sale outside the countries in which they occur, and that all countries monitor trade. The convention was thus drafted to control trade in such species (or parts of them) to eliminate the primary motivation for killing them in the first place.

Other agreements have made use of alternative infrastructures to assist in verification. The International Convention for the Prevention of Pollution from Ships (MARPOL) uses ship registration systems. Ships can only be registered if fitted with an oil chamber that cannot be flushed out at sea. This allows verification of non-discharge of pollutants to take place in ports rather than at sea.

National reports are often submitted late and incomplete under self-monitoring and reporting systems. This can be due to governments giving implementation of IEAs a low priority. Other factors include poor reporting guidelines, lack of expertise by states and limited resources. The greatest problems are usually experienced by developing countries. In the case of the Montreal Protocol, 54 developing countries, and only one OECD country, failed to report required baseline data by 1994. Effective IEAs address these problems by providing clear reporting guidelines and training for those responsible for gathering and reporting information. The CITES secretariat organises training seminars for customs officials and CITES Management Authorities in developing countries. The most recent IEAs explicitly recognise that developing countries require help, including financial aid and technology transfer, in order to build reporting capacity. Parties to the Montreal Protocol are committed to the provision of technology transfer and financial assistance, through a Multi-Lateral Fund (MLF), to help developing countries meet their reporting commitments. Similar schemes operate under the Global Environment Fund (GEF) for the Climate Change Convention and the Convention on Biological Diversity. This is welcome, although some schemes may not yet be operating effectively. There is also concern that they could be used by developed countries as a bargaining tool during negotiations.

Self-reporting, of course, may be open to abuse. Multilateral reporting schemes may help avoid this problem by supplying independent information. It is now known, for example, that the Soviet Union submitted false reports under the International Convention for the Regulation of Whaling (ICRW) throughout the 1960s. In 1971 the ICRW introduced a scheme to permit independent international observers to board ships and report suspected breaches directly to an infractions committee. This scheme reportedly brought the Soviets into compliance. However, the system is not perfect – in 1986 a Japanese inspector was found to be making false reports. Although independent monitoring is useful, care must be taken to deal sensitively with questions of sovereignty and

fears of intrusiveness. In particular, developing countries are wary of verification systems dominated by countries with the most advanced monitoring technology. All parties should be provided with the capability to contribute to such systems.

Even where every effort is made to maximise parties' capacity to gather and report information required to verify an IEA, it takes time for efficient systems to develop. The Convention on Long Range Transboundary Air Pollution (LRTAP) is noted for its high quality of reporting, but this has taken 20 years to achieve with a membership entirely consisting of developed countries. Its success has been attributed to the evolution of a small community of dedicated professionals who learn from one another at frequent workshops and take pride in reporting good results on time. Similar networks of scientists are already established under other agreements, and should be strongly supported, both internationally and domestically.

## ASSESSMENT OF COMPLIANCE

Information gathered under an IEA should be used effectively, both in assessing individual parties' implementation of their commitments and reviewing overall implementation of the agreement. Otherwise parties will put a low priority on reporting and confidence in the regime will be eroded. The data should also be used to learn more about the particular environmental issue and the progress of the parties in dealing with it.

It is usually the responsibility of the secretariat of an agreement to co-ordinate the exchange of information required for verification. They will also take initial responsibility for assessing its quality and reliability, which is especially important under self-reporting systems. In compiling the information they will be able to spot non-reporting, gaps and inconsistencies and cross-check it with independent data. The Montreal Protocol secretariat has detected suspect data in this way, including population data submitted by Lebanon which significantly differed from UN figures. Under CITES a particularly efficient system has evolved using a database of national import and export reports from parties which may be cross-checked against each other. Information from states parties is supplemented with data provided by environmental organisations. Where national reports are public, this increases transparency and makes parties answerable to a wider constituency. However, there are cases where it is wise to reconcile the benefits of transparency with parties' wishes for restricted access to reports, for example where confidential commercial data is involved. States may be more forthcoming with data where they are guaranteed some confidentiality.

The governing body of an agreement (usually the Conference of the Parties to a Convention or the

Meeting of the Parties to a Protocol) will always have final responsibility for assessing parties' compliance. However, often an intermediate body or process will initially carry out this task and report its recommendations to the governing body. For example, under the Climate Change Convention, in-depth review teams assess each party's compliance by examining its annual inventory and projections of greenhouse gases, reviewing its national communication (which outlines policies adopted and measures taken) and making a country visit to follow up particular aspects as necessary. The in-depth review teams' reports are published and forwarded to the Conference of the Parties.

The Montreal Protocol is one of the few IEAs with a formal non-compliance procedure. It is managed by a standing Implementation Committee of 10 member states chosen on an equitable geographic basis. Unlike the governing body, it is able to meet regularly and deal with compliance issues punctually and efficiently. Problems can be flagged at an early stage. The members are able to gain experience and expertise in dealing with such issues and will usually work with the parties to find solutions to their problems.

## RESPONSES TO NON-COMPLIANCE

Non-compliance is a tricky issue to deal with in any international agreement. States sign agreements voluntarily and are usually free to withdraw at any time without penalty (other than the loss of treaty benefits and privileges, which may be considerable). The consequences of non-compliance should not therefore be so threatening as to outweigh the benefits of being a party. However, if non-compliance is not dealt with adequately, the agreement becomes meaningless and confidence in it is likely to be lost. These issues are complicated in IEAs by the difficulties and uncertainties that many parties face in implementing the agreements, as outlined above. Non-compliance is generally the result of incapacity rather than intentional disregard for an agreement's rules, and so, arguably, should not be penalised. For these reasons the approach to non-compliance in IEAs has generally been to use non-coercive means to bring parties back into compliance (and to prevent them from getting into non-compliance in the first place).

An illustration is provided by the problems experienced by the countries of the former Soviet Union in complying with the Montreal Protocol. By 1994 the Protocol reporting system had revealed to the secretariat, and key members of the Implementation Committee and technical advisory panels, large-scale compliance problems in these countries as a result of their profound economic, political and social transitions. The findings were confirmed by a joint statement from the parties and a subsequent letter from the Russian Prime Minister, stating that they did not expect to be able to comply with deadlines for



phaseouts of ozone-depleting substances. The Secretariat and Implementation Committee decided to respond with a 'plan and review' approach, rather than sanctions, which are allowed for under the Protocol's non-compliance system. The parties were asked by the Implementation Committee to present detailed plans for ensuring compliance with their phaseout obligations as soon as possible. Once approved, these were recommended to the Global Environment Fund for financial support, conditional on the parties keeping to them. The blend of encouragement and assistance proved successful and the parties made much progress, several coming into compliance within a couple of years.

In other cases it has been found, however, that sanctions are required, especially against parties that intentionally or repeatedly fail to comply. Sanctions can be provided for in a compliance system from the beginning, as in the Montreal Protocol, or may evolve. The original CITES agreement did not include provision for sanctions, but the Standing Committee has evolved its own measures. In 1992 the Committee concluded that Italy had not addressed its serious and repeated failure to keep its commitments, and urged other parties not to issue to, or accept CITES documentation from, the Italian authorities. Legal trade in endangered species with Italy was effectively suspended. Italy responded by making significant improvements in its performance. Where trade sanctions are not available, for example under the Climate Change Convention and Kyoto Protocol, compliance will need to rely on other inducements such as funding and technology transfer.

## CONCLUSIONS

It is imperative for the success of IEAs to monitor and assess parties' implementation of their commitments. This requirement should be considered from the start of treaty negotiations in order that commitments are designed to be both monitorable and assessable. Specifically, care should be taken to draft unambiguous commitments and to ensure that it is possible to obtain the data needed to monitor implementation. As most IEAs rely on parties monitoring and reporting on their own activities, it is also necessary to ensure that all parties have such a capacity. Independent monitoring mechanisms can supplement national reporting and should be applied where appropriate.

Non-compliance in IEAs is generally the result of incapacity rather than intentional disregard for treaty obligations and so it is not usually appropriate to respond with penalties. A blend of encouragement and assistance generally brings parties back into compliance. However, sanctions may be required against parties that intentionally or repeatedly fail to comply. Trade measures can be useful or benefits such as technology transfer and funding can be withdrawn.



VERTIC is the Verification Research, Training and Information Centre, an independent, non-profit making, non-governmental organisation. Its mission is to promote effective and efficient verification as a means of ensuring confidence in the implementation of treaties or other agreements that have international or national security implications. VERTIC aims to achieve its mission by means of research, training, dissemination of information and interaction with the relevant political, diplomatic, technical, scientific and non-governmental communities. A Board of Directors is responsible for general oversight of VERTIC's operations and an International Verification Consultants Network provides expert advice.

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