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**Review of general issues of compliance and
implementation under the Convention:
control system**

Control system: electronic approaches to the notification and movement documents¹

Note by the Secretariat

As referred to in document UNEP/CHW/CC.12/11, the annex to this note sets out a report on electronic approaches to the notification and movement documents (draft 6 May 2016). The draft report was prepared by the Secretariat with the support of a consultant. The Committee is invited to consider the draft report including the recommendations on how further to improve the implementation of Article 6 of the Basel Convention.

* UNEP/CHW/CC.12/1.

¹ This document has not been formally edited.

Annex

Report on on electronic approaches to the notification and movement documents (draft 6 May 2016)

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Introduction

1. By its Decision BC-12/7, the Conference of the Parties to the Basel Convention, at its twelfth meeting, adopted the work programme for the biennium 2016-2017, whereby the Committee Administering the Mechanism for Promoting Implementation and Compliance with the Basel Convention (ICC) was requested to improve implementation of and compliance with Article 6 of the Convention by considering what additional steps could be taken to improve the implementation of and compliance with that provision.
2. Within this mandate the ICC agreed to explore electronic data approaches for the notification and movement documents. In order to assist the ICC with that task, this report has been prepared for the consideration of the ICC during its twelfth meeting and, subject to the outcome of that meeting, a revised report including recommendations will be submitted for consideration by the thirteenth meeting of the Conference of the Parties.
3. Paragraphs 1 and 2 of Article 6 of the Convention provide:
 1. *The State of export shall notify, or shall require the generator or exporter to notify, in writing, through the channel of the competent authority of the State of export, the competent authority of the States concerned of any proposed transboundary movement of hazardous wastes or other wastes. Such notification shall contain the declarations and information specified in Annex V A, written in a language acceptable to the State of import. Only one notification needs to be sent to each State concerned.*
 2. *The State of import shall respond to the notifier in writing, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information. A copy of the final response of the State of import shall be sent to the competent authorities of the States concerned which are Parties.*
4. Paragraph 9 of Article 6 of the Convention provides:
 9. *The Parties shall require that each person who takes charge of a transboundary movement of hazardous wastes or other wastes sign the movement document either upon delivery or receipt of the wastes in question. They shall also require that the disposer inform both the exporter and the competent authority of the State of export of receipt by the disposer of the wastes in question and, in due course, of the completion of disposal as specified in the notification. If no such information is received within the State of export, the competent authority of the State of export or the exporter shall so notify the State of import.*
5. The eighth meeting of the Conference of the Parties to the Basel Convention invited Parties to use the notification and movement documents and the instructions on their use by decision VIII/18 ("Harmonization of forms for notification and movement documents and related instructions").
6. This report has two parts. Part 1 provides an overview of the notification and movement document system in place to control transboundary movements under the Basel Convention, and of experience with electronic information exchange for the import and export of environmentally sensitive goods under other multilateral environmental agreements and organisations: benefits, challenges and lessons learned. Part 2 presents the methodology underpinning the development of the present report and summarizes the responses received from parties and stakeholders to two questionnaires aimed at collecting views and/or experience with electronic data approaches for notification and movement documents, with a view to identifying experience, challenges and best practices with electronic data systems for controlling transboundary movements of wastes covered by the Basel Convention. Part 2 also presents conclusions that can be drawn from these responses. The conclusion part of this report sets out some possible recommendations the ICC may consider for the way forward. Five annexes complement the report.

1. The control of the import and export of environmentally sensitive goods

1.1 The notification and movement document system in place to control transboundary movements under the Basel Convention

7. The Basel Convention contains a detailed Prior Informed Consent (PIC) procedure for transboundary movements of hazardous wastes and other wastes ("hazardous wastes"). The procedure is based on four key stages (1) notification; (2) consent and issuance of movement document; (3) transboundary movement; and (4) confirmation of disposal.

8. The purpose of stage 1: notification, is for the exporter to properly inform the importer of a proposed transboundary movement of hazardous wastes. The exporter/generator of the wastes must inform the Competent Authority (CA) of the State of export of a proposed shipment. Before the shipment commences the generator and the disposer make a contract for the disposal of the waste; that contract must ensure that the disposal is conducted in an environmentally sound manner.

9. The CA of the State of export assesses the information received from the exporter/generator and may refuse to allow the export. If the CA of the State of export has no objection to the export, it informs - or requires the generator/exporter to inform through the channel of the CA of the State of export - the CA of the other States concerned (i.e. the State of import and any State(s) of transit) of the proposed movement of hazardous wastes by means of a notification document, which provides the CA of the States concerned with detailed, accurate and complete information on the waste, on the proposed disposal operation and other details relating to the proposed shipment. This document must contain the information specified in Annex VA of the Convention, and must be in a language that is acceptable to the State of import and State(s) of transit.

10. The purpose of stage 2: consent and issuance of movement document, is to ensure that the importer agrees to the proposed transboundary movement and that the appropriate documentation accompanies the shipment of hazardous wastes or other wastes. On receipt of the notification document, the CA of the State of import must provide its written consent (with or without conditions) or denial. The State of import may also ask for further clarification. The CA of the State of import must also confirm to the notifier the existence of the contract between the exporter and the disposer.

11. The CA of any State of transit must promptly acknowledge receipt and may provide its written consent to the State of export (with or without conditions) or deny permission within 60 days. The State of export shall not allow the movement to proceed until it has received the written consent of the State of transit. States of transit may decide not to require prior written consent, in which case the State of export may allow the export to proceed if it does not receive any response from that State of transit after 60 days.

12. Once the relevant CAs have established that all the requirements of the Convention have been met and have agreed to the movement, the CA of the State of export can proceed with the issuance of the movement document and authorize the shipment to start. The movement document contains detailed information about the shipment and must accompany the consignment at all times at the time of departure to the arrival of the consignment at the disposer.

13. Stage 3: transboundary movement, includes the various steps that need to be followed once the transboundary movement has been initiated and until the wastes have been received by the disposer. The movement document provides relevant information on a particular consignment, for example, on all carriers of the consignment, which customs offices it has to pass through, the type of waste and how it is packaged. It should also provide accurate information on the authorizations by the CAs for the proposed movements of wastes.

14. The Conference of the Parties has recommended that the duly completed notification should always accompany the Movement document. Most States accept a copy of the duly completed and fully authorized notification to be enclosed with the movement document. However, some States require an original notification, stamped and signed by the CA, to accompany the movement document.

15. The purpose of stage 4: confirmation of disposal, is for the generator and State of export to receive confirmation that the wastes moved across borders have been disposed of by the disposer as planned and in an environmentally sound manner. The Convention requires a confirmation from the disposer when the disposal has taken place, according to the terms of the contract, as specified in the

notification document. If the CA of the State of export has not received the confirmation that disposal has been completed, it must inform the CA of the State of import accordingly.

1.2 Experience with electronic information exchange for the import and export of environmentally sensitive goods under other multilateral environmental agreements and organisations: benefits, challenges and lessons learned

16. A number of international agreements and arrangements relate to the import and export of environmentally sensitive goods. The following agreements and arrangements were analysed, with a view to considering whether they have any lessons for the Basel Convention with respect to the electronic exchange of information:

- (a) The Cartagena Protocol on Biosafety to the Convention on Biological Diversity;
- (b) The Montreal Protocol on Substances that Deplete the Ozone Layer;
- (c) The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade;
- (d) The Convention on International Trade in Endangered Species (CITES);
- (e) The International Plant Protection Convention (IPPC); and
- (f) The United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT).

17. The detailed analyses appear in Annex I to this report. The following paragraphs summarize the benefits of electronic information exchange, the challenges presented and the lessons learnt.

18. Broadly speaking, the analysis in Annex I suggests that there are two particular ways in which electronic means can be used to enhance control over movement of goods.

- (a) First, standards can be developed to achieve interoperability, so that electronic systems work with others without any restricted access or implementation. The development of interoperability permits electronic systems to communicate with each other.
- (b) Second, a single system or hub can be developed: a single mechanism that is multilaterally established and that facilitates the exchange of information between Parties and stakeholders.

19. There appears to be a trend towards the use of electronic approaches to monitor movement of environmentally sensitive goods. All of the agreements and organisations analysed use electronic means to control and/or monitor the import and export of goods. What is more under CITES and IPPC, significant work is in progress to install single systems or hubs for exchange of information. And there was no evidence of any rowing back from the use of electronic means, notwithstanding the challenges faced.

20. Under all the treaties studied, governing bodies have mandated extensive work to apply electronic approaches to information exchange on the assumption that it will bring benefits, in particular improvements in effectiveness and efficiency. Indeed that assumption is the basis for much of UN/CEFACT's work, which starts with the premise that international transactions, both commercial and governmental, will be benefited through the harmonisation and simplification of information flows. That is the reason why UN/CEFACT creates standards for information exchange.

21. The experience of electronic approaches appears to have been positive; for example, users of electronic permitting under CITES report that there are substantial savings over the years, and there is considerable support for the electronic toolkit that has been developed under the Convention.

22. The prospective hub under the IPPC is expected to bring a number of benefits, including a globally harmonized approach for certification under the Convention; the reduced potential for fraudulent certificates; reduced data entry and validation activities by national plant protection organisations, improving efficiencies; improved security in the transmission of certificates; efficiencies in arrival and clearance of plants and plant products at the point of entry; reduced delays in receiving replacement certificates; and the use between governments of harmonized international e-business standards developed under UN/CEFACT. These expected benefits resonate with the hopes of Parties and stakeholders for an electronic approach under the Basel Convention, which will be discussed later.

23. Nevertheless there are challenges associated with electronic approaches. It takes considerable time and resources to launch an electronic system. CITES, which is many years ahead of the Basel Convention, started considering electronic permitting systems in 2007. Work on that was completed in 2010 and updated in 2013. Meanwhile the UNEP-World Conservation Monitoring Centre is developing a hub (EPIX - Electronic Permit Information eXchange) to enable CITES Management Authorities to exchange data. That is work in progress, many years after electronic permitting was first mooted.
24. Initially there may be resistance to new systems; for example in 2011 a UNEP study reported that countries did not join iPIC, the Montreal Protocol's informal Prior Informed Consent system, because of administrative burdens. And some countries reported that they did not participate in iPIC because of their wish to maintain confidentiality of trade information.
25. Users of new electronic systems may require help. There is, for example, extensive support to Cartagena Protocol Parties and stakeholders to engage with the Protocol's Biosafety Clearing House; for example, there is a training site to familiarise users with the functioning of the BCH; there are tutorials, a set of FAQs and an extensive 'Help' section developed by UNEP-GEF.
26. Parties and stakeholders may also need to be encouraged to engage with new systems; for example the biodiversity Secretariat has taken pains to make it clear that the challenge and responsibility lies with parties and other relevant stakeholders to make full use of the BCH and actively to contribute information to it.
27. The following lessons can be learned from the work undertaken under other organizations. It is important to note for instance, that much progress has already been made to prepare relevant standards relating to interoperability. Work to develop electronic permitting under CITES and the IPPC already takes into account UN/CEFACT work and it would be natural for any further individual work by Parties to implement their own electronic approaches to notification and movement documents to take into account relevant work by UN/CEFACT specifically designed to support transboundary movements of waste. And if any work is commenced under the Basel Convention on electronic approaches that work should also respect UN/CEFACT standards.
28. It is also important to take into account the work of other multilateral agreements on electronic approaches to oversee import and export of environmentally sensitive goods. Experience under the Montreal Protocol, IPPC and CITES may be particularly relevant to any work that may be undertaken under the Basel Convention, and should Basel Convention Parties decide to embark on an electronic approach to notification and movement documents, it would be prudent extensively to consult the Secretariats of those Conventions and also of UNEP colleagues who are engaged with iPIC online.
29. Any further work on an electronic approach related to Basel Convention processes should also take into account the necessity to consult organisations whose responsibilities are relevant to that work. From the research carried out to prepare this paper, it seems like it may be advisable to collaborate with and/or consult the following organisations: the World Trade Organization (WTO), the World Customs Organization (WCO), the Organization for Economic Co-operation and Development (OECD), the United Nations Commission on International Trade Law (UNCITRAL) and the United Nations Conference on Trade and Development (UNCTAD). During the course of any work it may become apparent that other organisations have valuable expertise to offer.
30. Finally, it seems likely that if and when further work on an electronic system is commenced one issue that will need to be tackled is this: should the system be compulsory or voluntary? Feedback from some stakeholders indicates that there would be support for a compulsory and unified system, in order to achieve uniformity and consistency. Yet none of the multilateral agreements and organisations studied has a compulsory system in place, and iPIC online, for example, can recruit participating countries on an incremental basis because of its voluntary nature, which makes it more flexible than a mandatory system. It may also be politically easier for countries that have misgivings about electronic approaches to a PIC regime to accept a voluntary electronic approach, which permits States to decline to participate unless and until they are convinced of the value of the approach.
31. This paper now moves from a discussion of multilateral environmental agreements and arrangements to an analysis of the responses to the questionnaires on electronic data approaches.

2. Responses to the questionnaires

2.1 Methodology

32. In order to assist the ICC with its work on electronic data approaches for the notification and movement documents, two questionnaires were developed under the guidance of lead Committee members. One questionnaire was for parties; it was available in English, French and Spanish. A separate questionnaire was developed for selected stakeholders. Parties were also invited to inform and make available to stakeholders within their jurisdiction, in particular waste generators, exporters, importers and disposers, the questionnaire for stakeholders. It was explained to parties and stakeholders that information collected from them would be used as a basis for the development of recommendations by the ICC to the Conference of the Parties on ways to improve the implementation of Article 6 of the Convention.

33. Both questionnaires sought views and/or experience with electronic data approaches for notification and movement documents, with a view to identifying experience, challenges and best practices with electronic data systems for controlling transboundary movements of wastes covered by the Basel Convention. The questionnaires were also designed to discover the extent to which notification and movement documents are already processed, transmitted and/or stored electronically.

34. Parties were asked whether they had plans to increase the use of electronic data in this regard, and stakeholders were asked whether they would support plans to increase the use of electronic data. The questionnaires were intended to start a discussion about the possible benefits of a centralized Basel Convention electronic approach to notification and movement documents, and the challenges such an approach would pose.

35. The questionnaires explained that examples of electronic data approaches could include:

- (a) Making notification and movement documents available in electronic form;
- (b) A centralised system of electronic notification;
- (c) A standardised system of notification that would enable each Party to keep their own system but which would enable a Party to communicate with the system of another Party using standardised messages; and
- (d) A combination of one or more of the above three approaches.

36. The questionnaires were sent to parties and stakeholders, and a deadline for replies was set to 1 April 2016. Copies of the questionnaires sent to parties and stakeholders respectively are contained in Annexes II and III to this report. Responses received to the questionnaires are available on the website of the Convention² as well as in document UNEP.CHW.CC.12/INF/11.

37. At the time of the drafting of the present report, 47 parties had responded to the questionnaire. There was a good representation of all the regions, with the African region slightly preponderant.

38. From the African region the following 10 parties replied: Central African Republic, Republic of the Congo, Cote d'Ivoire, Eritrea, Madagascar, Mozambique, Sao Tome & Principe, Senegal, Swaziland and Tunisia. From the Asian region, the following 7 parties replied: Afghanistan, Bahrain, China, Iraq, Lebanon, Philippines and the State of Palestine. From the Central and Eastern Europe Region, the following 13 parties replied: Albania, Armenia, Azerbaijan, Bulgaria, Czech Republic, Estonia, Georgia, Hungary, Latvia, Montenegro, Poland, Russian Federation and Slovakia. From the Latin America and Caribbean region, the following 10 parties replied: Barbados, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Honduras and Nicaragua. From the Western European and Others Region, the following 7 parties replied: Austria, Belgium, Canada, the European Union and its member States, Finland, Germany and Portugal.

39. At the time of the drafting of the present report, the following 38 stakeholders had responded to the stakeholders questionnaire: Hemosan⁴ Ltd Bar, ALBA Supply Chain Management GmbH, American University of Beirut, BDE – Germany, Caribbean Recycling, S.R.L., CEMMAC a.s., Combinering A/S, Coolrec, Dansk RestproduktHandtering, Ekolumi, s.r.o., El Bat JSC, ENVIROSERV WASTE MANAGEMENT, Geogcycle Bulgaria, GREENWEE INTERNATIONAL

²

<http://www.basel.int/Implementation/LegalMatters/Compliance/GeneralIssuesActivities/Activities201617/Controlsystemelectronicapproaches/tabid/4890/Default.aspx>

S.A., GSB Sonderabfall-Entsorgung Bayern GmbH, HIM GmbH, Infraser Frankfurt, KMK Metals Recycling Ltd., Komodum D.O.O., Metal Scrap Recyclers Dominicana, SRL, Metallo-Chimique, Nigeria LNG LTD, Planta Ecologica W1, S.A., Polyeco S.A., Powertech Batteries, RECYCLAMED, RELIGHT S.R.L., Scholz Austria GmbH, Sims Lifecycle Services B.V., Sims Recycling Solution, Sims Recycling Solutions Africa, SRS-Benelux (Mirec B.V.), Stena Recycling AB, Stena Technoworld Srl, SUEZ Finland, THE INITIATES PLC, Umicore SA, and Verband der Chemischen Industrie e.V.

40. There was a good response from stakeholders, but responders from Europe were markedly preponderant, and it would have been preferable to have a better regional spread. It would also have been helpful to have had responses from the BCRCs to work up ideas on capacity building.

41. Summaries of information collected through the questionnaires from parties and stakeholders may be found in Annexes IV and V respectively to this report. From that information, key conclusions, which are listed below, may be drawn. The structure of these conclusions follows closely the structure of Annexes IV and V; the reader may get further information on any conclusion by referring to the corresponding part of the relevant annex.

2.2 Conclusions from information collected from parties

42. The notification document is mainly transmitted and processed manually. Whilst the majority of parties reported that the notification document was available electronically in their country, less answered that it could be completed electronically and less still reported that the notification document was usually completed electronically. Virtually all said that notification documents were signed manually and none said notification documents were signed digitally. The majority said notification documents were stored in a paper form. The notification document is mainly transmitted by post, fax and emails without digital signature.

43. Most parties would like most stages of notification to be electronic. A substantial majority of parties considered that electronic notification would be helpful. The reasons given included the following: electronic transmission of documents would be faster and cheaper, improving the availability of information, improving enforcement and transmission of data and improving process.

44. The movement document is mainly processed and made available manually. Parties' answers on questions relating to the movement document were similar to parties' answers relating to the notification document. Whilst the majority of parties reported that the movement document was available electronically in their country, less answered that it could be completed electronically and less still reported that the movement document was usually completed electronically. The majority of parties said that the movement document was made available during shipment in hard copy; either the original document or a copy of it. A small minority said the movement document was made available in electronic form, and virtually all said that movement documents were signed and stamped manually.

45. In only a minority of cases are States of import notified electronically of reception and disposal of waste. Most States of import are informed of reception and disposal by post, fax and email; approximately 1/3 of States were notified by post and 1/3 by email. In conclusion, most parties would like most stages of the movement and disposal stage to be electronic. Although there was less marked support for this than there was support for electronic notification.

46. Only a minority of parties had experience of electronic approaches to the main hazardous waste movement processes; those that do experience a range of challenges. An electronic approach to key processes is the exception rather than the rule. A number of parties reported no experience of electronic approaches, although some reported that they hope to enhance their capabilities shortly. Challenges were connected with technical capability, organisation and costs.

47. Parties with experience of electronic approaches reported considerable benefits. Those benefits included saving time, enhancing efficiency, and helping enforcement.

48. Parties listed a number of important practical challenges they face with respect to the movement of waste; many of them might be addressed by an electronic approach: delays, lack of information, flaws in process and enforcement. There may also be systemic challenges that could benefit from the harmonisation that may be associated with an electronic approach. There are, however, other challenges that may be difficult to address directly through an electronic approach:

lack of equipment and/or infrastructure and lack of training and expertise. A summary of the challenges faced by parties that already have an electronic approach may be found on pages 67-68³.

49. Parties were unanimous in their support for a Basel Convention electronic system for transboundary movements. There was an expectation that electronic data approaches would speed up procedures; facilitate processing of applications; help to address difficulties; increase uniformity of procedures; harmonise approaches; improve communication and sharing of information; reduce administrative burdens for authorities and stakeholders; increase traceability and transparency; enable shipments to be tracked; improve the analysis of movements; help Parties to cooperate with and learn from each other; increase the reliability of information; help parties to verify information; minimise corruption; and assist reporting.

50. A majority of parties supported an electronic approach to most of the main notification and movement processes. A majority of parties supported a centralised Basel electronic system, managed by the Secretariat. Although there was also considerable support for an intermediate system, with some parties having their own systems and others not, with the Secretariat playing the role of the centralized repository of the notifications.

51. Parties identified studies and current efforts to develop electronic approaches; the list of them may be found on page 66⁴.

2.3 Conclusions from information collected from stakeholders

52. A majority of stakeholders considered that there should be an electronic approach to each stage of notification. Stakeholders expected this would lead to improvements in efficiency, a more effective process and benefits to the environment. A majority of stakeholders also considered that there should be an electronic approach to each stage of movement and confirmation of disposal.

53. A minority of stakeholders have experience with electronic approaches to waste movement processes. Of the processes considered, stakeholders had most experience of electronic approaches in the following areas: the contract between waste exporter and disposer; notification of a proposed movement; notification of reception of wastes and notification of confirmation of disposal. A number of benefits were identified, including general speed and continuity; greater transparency; saving time and paper and elimination of bureaucracy and administrative work. A number of best practices were identified by stakeholders, as were challenges in the implementation of electronic approaches.

54. An overwhelming majority of stakeholders would support an initiative for a Basel Convention electronic system for transboundary movements. Those who would support such an initiative outnumbered those who would oppose by ten to one. Those in support of such an initiative believe it would enhance efficiency, improve procedures, facilitate enforcement and make information more accessible and easier to transmit. In addition, a majority of stakeholders would like to see all key Basel processes supported by a Basel Convention electronic system for transboundary movements. Furthermore, a majority of stakeholders would like to see a centralised Basel electronic system. Those in favour of such a system identified a number of advantages, including the following: Secretariat control, a coherent set of rules and guidelines, and saving the resources that would be required to link different systems.

55. A summary of the most important practical challenges faced by stakeholders may be found on page 81⁵. Stakeholders listed the best practices they had encountered with respect to electronic approaches to transboundary movements of hazardous and other wastes: see pages 80-81⁶.

Conclusion

56. The responses to the questionnaires have shown that at the moment there is limited use of electronic means to transmit, acknowledge and otherwise process notification and movement documents. The responses also show that parties and stakeholders overwhelmingly support the proposition that there should be an initiative to provide for electronic data approaches to notification and movement, which would be available to all parties to the Basel Convention (a Basel Convention electronic system).

³ See the summary of the answers to question III.2.

⁴ See the answers to question III.4.

⁵ See the summary of the answers to question III.4.

⁶ See the answers to question III.3.

57. A study of a sample of multilateral environmental agreements and organisations suggest that a consensus is developing on the usefulness of electronic means to enhance controls over and monitoring of environmentally sensitive goods. But that study also shows that the application of such electronic means requires considerable time and resources; much relevant work has been done in other forums and complex choices need to be made before any work is commenced.

58. Further consideration of the issues is required. It is recommended that, as first step, the ICC recommend to COP-13 that information exchange activities be undertaken to further consider the merits of an initiative to establish a Basel Convention electronic system. This could be done through the organization of an information sharing and brainstorming meeting of experts from parties and observers to consider possible options for steps towards a Basel Convention electronic system for transboundary movements. The meeting would serve the purpose of reaching a shared understanding of the possible options, the current systems under development or in place within parties (eg. such as SIETRE in Latin America, the European Commission, the European Data Interchange for Waste Notification System - EUDIN; and the Nordic TFS), and lessons from other agreements (Rotterdam Convention, Cartagena Protocol, Montreal Protocol, the IPPC, CITES) and organizations (UNEP, UN/CEFACT, the World Trade Organization, the World Customs Organization, the Organization for Economic Co-operation and Development, the United Nations Commission on International Trade Law and the United Nations Conference on Trade and Development).

59. Depending on the outcome of this initial work, an intersessional working group could subsequently be mandated to develop recommendations as to, for instance:

- (a) Whether further work should focus on the development of standards, or a hub, or both;
- (b) Whether a system should be introduced incrementally or all at once;
- (c) Whether any system should be compulsory or voluntary;
- (d) How the system might be funded;
- (e) How existing standards should be protected;
- (f) How confidentiality should be protected;
- (g) What support would be required for prospective participants in the system;
- (h) Whether any existing architecture could be scaled up to provide a Basel Convention hub;
- (i) How to deal with any inconsistencies in the interpretation of the Basel Convention that might be an obstacle to any electronic system; and
- (j) Whether to commission a feasibility study.

Annex I: Experience with electronic information exchange for the import and export of environmentally sensitive goods under other multilateral environmental agreements and organisations

Cartagena Protocol on Biosafety to the Convention on Biological Diversity

Introduction to the Protocol

The *Cartagena Protocol on Biosafety to the Convention on Biological Diversity* aims to ensure the safe handling, transport and use of living modified organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health.

The Biosafety Clearing House

The Biosafety Clearing-House¹ (BCH) is an information exchange mechanism established pursuant to Article 20 of the Cartagena Protocol on Biosafety to help parties to implement their obligations arising under the Protocol and to facilitate the exchange of scientific, technical, environmental and legal information on, and experience with, living modified organisms (LMOs) and to assist parties to implement the Protocol.

The BCH brings together seekers and providers of information. It facilitates the exchange of biosafety information between governments and other stakeholders, and is intended to provide a dynamic platform, where information is registered and where it can be easily searched and retrieved.

Information available on the BCH

The BCH contains information that Parties are required to provide under the Protocol, as well as other information and resources relevant to the implementation of the Protocol. The information includes –

- national contact information, such as national focal points and points of contact for receiving notifications regarding unintentional transboundary movements of LMOs and emergency measures; national laws, regulations and guidelines and bilateral regional and multilateral agreements;
- decisions and declarations made under the Protocol; and
- risk assessments relating to LMOs.

Benefits

The BCH provides Parties and other stakeholders with information to help them with the implementation of the Protocol, provides easy and open access to key information, and facilitates scientific and technical cooperation between Parties and stakeholders.

Challenges and lessons learnt for the Basel Convention

The BCH is broad in scope. Parts of it, for example the information on decisions on the Advanced Informed Agreement process, relate directly to decisions on prior informed agreements for transboundary movements of LMOs and at first sight may seem relevant to Basel Protocol transboundary movement and notification documents. But even there the *BCH is a mechanism for providing information, rather than a vehicle for implementing a prior informed consent regime*. Others parts of the BCH are more generally about dissemination of information.

Nevertheless the BCH represents an ambitious attempt under a multilateral environmental agreement to use electronic information exchange to provide information about the transboundary movement of LMOs, and could provide some useful lessons to Basel Parties.

First, it should be noted that the establishment of the BCH has taken considerable resources. The Protocol entered into force in 2003. First Meeting of the Parties to the Cartagena Protocol on Biosafety in Kuala Lumpur, Malaysia in February 2004 established detailed modalities of operation in their decision BS-I/3 about information sharing, running to eight sections. In June 2005 the Second Meeting of the Parties to the Cartagena Protocol on Biosafety in Montreal Canada adopted the current multi-year programme of work for the operation of the BCH by paragraph 1 of decision BS-II/2 on Operations and activities of the Biosafety Clearing-House; the programme comprises 5 elements on the Structure and function of the central portal, Information content and management, Sharing information on and experience with LMOs, and Capacity-building and non-Internet accessibility. In order to reproduce anything like the BCH, there would have to be political will and considerable resources and funds made available.

¹ The BCH is accessible at <http://bch.cbd.int/>

Second, Parties and stakeholders need to be actively and methodically reminded to engage with the BCH. The biodiversity Secretariat has taken pains to make it clear that the challenge and responsibility lies with Parties, Governments and other relevant stakeholders to make full use of the BCH and actively to contribute information to it. Any electronic data approach to the Basel Convention movement and notification documents may require similar efforts to enlist Basel Parties and Stakeholders.

Third, many aids have been provided to help Protocol Parties and stakeholders to engage with the BCH. For example, there is a Training Site² to familiarise users with the functioning of the BCH without altering the content of the official portal. There are five modules of tutorials³, a set of Frequently Asked Questions⁴, and an extensive 'Help' section developed by UNEP-GEF. If a Basel electronic system is established, it may be prudent to consider how best to support users, perhaps drawing on BCH examples.

² At <http://bch.cbd.int/resources/trainingsite.shtml>

³ At <http://bch.cbd.int/help/tutorials>

⁴ At <http://bch.cbd.int/help/faq/>

Montreal Protocol on Substances that Deplete the Ozone Layer

Introduction to the Protocol

The Montreal Protocol on Substances that Deplete the Ozone Layer is a protocol to the Vienna Convention for the Protection of the Ozone Layer. It is designed to protect the ozone layer by reducing the production and consumption of ozone depleting substances in order to reduce their abundance in the atmosphere. It entered into force in 1989 and has been amended and adjusted a number of times since.

The Montreal Protocol and trade

The Montreal Protocol includes trade controls. Article 4 provides for controls of trade to non-parties. Article 4A provides for control of trade with parties. And Article 4B provides for a system for licensing the import and export of new, used, recycled and reclaimed controlled substances, in order to enable parties effectively to monitor and control trade in ODS and to prevent illegal trade.

The Montreal Protocol did not follow the route of the Basel Convention and establish a formal and mandatory system PIC system, but many national authorities realized how useful PIC could be, and so iPIC was created.

Informal Prior-Informed Consent (iPIC)

iPIC is an informal and voluntary mechanism of information exchange on intended trade between the authorities in importing and exporting countries which are responsible for issuing ODS trade licenses: focal points / National Ozone Units of importing and exporting countries share details of eligible importers and exporters with other iPIC members and consult each other prior to issuing trade licenses. The *system or hub* is maintained by UNEP to help countries facilitate and monitor ODS trade and to avoid illegal or unwanted shipments. Before issuing a trade licence (for import or export of ODS), relevant authorities request the iPIC focal points of their trade partner to confirm that they agree to the intended trade and that they will issue an import/export licence accordingly.

The necessary information exchange and crosschecking is carried out between the designated iPIC focal points of the trade partners through a secure online platform - iPIC online - or via a simple exchange of emails or by phone. iPIC data are only shared among the designated iPIC focal points of the parties. This informal system has proved to be valuable in facilitating and expediting information exchange and can assist in forging links between responsible staff in importing and exporting countries.

iPIC online

iPIC online replaced the earlier means of exchanging information about ODS national licensing systems. It was developed to enhance the iPIC mechanism and make it easier for the participating countries to use.

iPIC online provides participating countries with constant personalized access to the most important licensing data in each of the participating countries. It provides a standardized and secured repository of iPIC data. It contains not only data on countries but also on companies licensed to trade ODS and information on equipment or products with trade restrictions.

Features of online iPIC include secured online access to iPIC data of participating countries, a list of registered importers and exporters; information on specific trade restrictions and bans for ODS; a list of destruction and reclaim facilities; the specifics of ODS legislation; contact information of focal points; a secure communication platform for iPIC consultations with other iPIC members; the facility to update iPIC data at any time; the facility to search for specific items within the iPIC data; an interactive query and information sharing forum; a FAQ section which answers basic questions; a help section explaining how to use the online system; multi-lingual capability and an interactive colour coded map displaying iPIC countries.

Challenges and lessons learnt for the Basel Convention

iPIC requires additional administrative effort in both the importing and exporting countries, and a 2011 UNEP study⁵ reported the increased administrative burden as a reason for not entering into this initiative; that the need to update the iPIC Information sheets on a regular basis was described as "not user friendly"; some countries reported that they did not participate in iPIC because of their wish to maintain confidentiality of trade information.

Moreover as iPIC is voluntary it does not engage all Montreal Protocol parties, a considerable number of whom do not participate.

There may, however, be a number of lessons for the Basel Convention parties.

⁵ See http://www.unep.org/ozonaction/ecanetwork/Portals/138/IPIC2011_MOP23.pdf

First, notwithstanding the disadvantages, iPIC's voluntary nature allows the system to recruit participating countries on an incremental basis and is more flexible than a mandatory system. It may also be politically easier for countries that have misgivings about electronic approaches to a PIC regime to accept a voluntary electronic approach, which permits States to decline to participate unless and until they are convinced of the value of the approach.

Second, UNEP has reported that the advantage of an informal approach over a formal one is that communication between importing and exporting countries can be organized at the level of the focal points, which facilitates information exchange and assists in forging informal links between staff responsible for issuing licenses or permits in importing and exporting countries.

Third, iPIC online was developed after an intensive 3-month development phase during which countries in different regions tested and gave feedback on a pilot version, which UNEP incorporated into the final system.

Fourth, if Basel Convention parties decide to develop an electronic data approach to notification and movement documents, it may be worth exploring whether UNEP colleagues responsible for iPIC may be able to contribute to that approach.

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

Introduction to the Rotterdam Convention

The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade facilitates informed decision-making by countries on trade in hazardous chemicals. It establishes a PIC procedure with respect to chemicals listed in Annex III, and requires parties seeking to export a chemical on that list to establish that the intended importing country has consented to the import. It also requires that a party seeking to export a chemical that is not listed under the Convention, but is subject to a ban or severe restriction in its own territory, must provide notice to the importing country of the proposed export.

The Rotterdam Convention and the import and export of environmentally sensitive goods

The international trade of hazardous chemicals listed in Annex III are subject to a PIC procedure. Exports are only allowed if the State of import has consented to the future import of the specific chemical through an Import Response.

When a chemical not listed in Annex III but banned or severely restricted by a party is exported from its territory, that Party must notify each individual importing Party before the first shipment and annually thereafter (article 12).

Electronic information exchange under the Rotterdam Convention

The Rotterdam Convention website is used extensively to exchange information about the Rotterdam PIC procedure⁶.

PIC procedure

The PIC procedure consists of a mechanism for formally obtaining and disseminating the decisions of importing Parties as to whether they wish to receive future shipments of those chemicals listed in Annex III of the Convention and for ensuring compliance with these decisions by exporting parties.

Import responses

Once a chemical becomes subject to the PIC procedure, parties are required, through their Designated National Authority (DNA)⁷, to take a decision – an import response - as to whether they will allow future import of the chemical. The Rotterdam website provides the form and instructions for the import response⁸.

An import response database is available on the website⁹ so that exporting parties know whether other parties have consented to an import or not. Import responses are also published in the PIC Circular every six months, which may also be found on the website¹⁰.

Export notifications

There is also an export notification procedure for chemicals banned or severely restricted by an exporting party yet not listed in Annex III, and therefore not subject to the PIC procedure.

The DNA of the exporting party planning to export chemicals banned or severely restricted in its territory provides an Export Notification to the importing party. The DNA of the importing party is required to acknowledge receipt of the export notification within 30 days. The Rotterdam Convention website also provides support to this process, by making a standard form and instructions available¹¹.

⁶ For general information, see

<http://www.pic.int/Procedures/PICProcedure/tabid/1364/language/en-US/Default.aspx>

⁷ The Rotterdam Convention website describes a DNA's mandate, role and responsibility at

<http://www.pic.int/Procedures/DesignatedNationalAuthorities/tabid/1366/language/en-US/Default.aspx>

and provides a page for DNAs to verify their contact information is valid and complete at

<http://www.pic.int/Procedures/DesignatedNationalAuthorities/ContactsManagement/tabid/1485/language/en-US/Default.aspx>

⁸ At

<http://www.pic.int/Procedures/ImportResponses/FormandInstructions/tabid/1165/language/en-US/Default.aspx>

⁹ At

<http://www.pic.int/Procedures/ImportResponses/Database/tabid/1370/language/en-US/Default.aspx>

¹⁰ At

<http://www.pic.int/Implementation/PICCircular/tabid/1168/language/en-US/Default.aspx>

¹¹ At

<http://www.pic.int/Procedures/ExportNotifications/FormandInstructions/tabid/1365/language/en-US/Default.aspx>

Challenges and lessons learnt for the Basel Convention

The PIC procedure depends to a large extent on parties' electronic information exchange through the Rotterdam Convention website.

It seems probable that the effectiveness of electronic information sharing makes a substantial contribution to the operation of the Rotterdam Convention. It is difficult to imagine how up to date information on import responses could be shared globally without electronic means; and if an alternative could be found it would doubtless impose a significant burden on parties, stakeholders and the Secretariat.

Notwithstanding the success of Rotterdam in sharing information electronically, it is not clear quite how much the Rotterdam system could provide a useful model for electronic notification under the Basel Convention. The key difference is this: the Rotterdam Conventions' PIC regime is centralised, so that, for example, import responses concern – at least potentially – all parties, whilst the Basel Convention regulates any separate transactions, and each one of those transactions normally engage on the parties concerned with a particular transaction.

Indeed it is worth noting that when there are *individual* exports of chemicals that are not subject to the PIC procedure, that notification is made from party to party, and not via the Rotterdam Convention website.

The Convention on International Trade in Endangered Species (CITES)

Introduction to CITES

CITES is an international treaty intended to prevent species from becoming endangered or extinct because of international trade. Parties work together to regulate the international trade of animal and plant species and ensure that this trade is not detrimental to the survival of wild populations. Any trade in protected plant and animal species should be sustainable, based on sound biological understanding and principles. Under CITES trade in endangered species is regulated by, inter alia, a permitting system.

The electronic permitting toolkit and the Electronic Permit Information eXchange

The fourteenth meeting of the CITES Conference of the Parties (COP) in 2007, discussed the use of electronic permitting systems to trade in CITES specimens. This was completed¹² in 2010, and updated in 2013 according to new electronic permitting standards and norms.

Also in 2013, Decision 16.54 of COP 16 extended the mandate of its Working Group on Information Technologies and Electronic Systems and entrusted it, inter alia, to work with the United Nations Centre for Trade Facilitation and Electronic Business, the World Customs Organization and other relevant organizations to ensure the alignment of CITES e-permits with international trade standards and norms; and to facilitate the development of ready-to-use electronic CITES permitting for Parties in developing regions.

Meanwhile UNEP- World Conservation Monitoring Centre (UNEP WCMC) is developing a mechanism to facilitate the electronic exchange or verification of CITES Permit data among Management Authorities. The tool, known as EPIX (Electronic Permit Information eXchange), is being developed so that participating Management Authorities can exchange data regardless of the type of information management system used by each Authority. This mechanism is being developed in communication with the CITES e-permitting working group which is developing standards for data electronic exchange.

Challenges and lessons learnt for the Basel Convention

The development of standards and norms for CITES permitting, followed by the development of EPIX, has taken some time. EPIX is still a work in progress. CITES experience shows that the full development of electronic permitting can take many years.

Nevertheless users of electronic permitting for CITES claim that there are substantial savings over the years, and there is considerable support for the toolkit.

CITES has developed partnerships with other organisations. The CITES Secretariat has met with the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) to acquire knowledge on new international standards and norms developed to improve the ability of the public and private sectors to exchange services and goods effectively. There will be a separate section on UN/CEFACT later. It has also been important to work with the World Customs Organization (WCO), because the WCO's Customs Data Model establishes a standard, international and harmonized data set that meets governments' requirements for international trade and that is geared exclusively to the requirements of an automated environment.

¹² The mandate for the development of the toolkit was set out by Decision 14.55 of the COP: the toolkit would include a) advice on the use of common information exchange formats, protocols and standards for use with electronic permitting systems; b) advice on the use of electronic signatures and other electronic security measures; c) advice on the development and implementation of interoperable information exchange pilot projects on electronic permitting systems; d) a list of Parties willing to assist less developed countries in developing electronic permitting systems; e) a list of Parties currently using electronic permitting systems; and f) information on new developments in the use of electronic documents by relevant organizations.

International Plant Protection Convention (IPPC)

Introduction to the IPPC

The International Plant Protection Convention (IPPC) is under the aegis of the Food and Agriculture Organisation and aims to secure coordinated, effective action to prevent and to control the introduction and spread of pests of plants and plant products.

Electronic Phytosanitary Certification (ePhyto)

A phytosanitary certificate is issued under the IPPC by a plant protection organization of the exporting country to the plant protection organization of the importing country; it certifies that the plants or plant products covered by the certificate have been inspected according to appropriate procedures and are considered to be free from quarantine pests and practically free from other injurious pests, and that they are considered to conform with the current phytosanitary regulations of the importing country. The phytosanitary certificate facilitates trade.

An ePhyto is an electronic version of a phytosanitary certificate. It can be exchanged electronically between countries or the data printed out on paper.

An ePhyto Steering Group has been established to continue the development of ePhyto, and has become responsible for increasing the understanding and awareness of ePhyto, supporting its implementation and assisting in the development of systems to support electronic phytosanitary exchange.

The SG has supported the development of an independent study on the feasibility of an electronic hub that could facilitate the transfer of electronic certificates between national plant protection organizations. The SG also increases awareness and understanding of ePhyto; supports the development of an ePhyto hub, and considers implementation issues associated with creating the hub.

Challenges and lessons learned for the Basel Convention

An ePhyto hub is associated with a number of benefits, including:

- a globally harmonized approach for electronic phytosanitary certification;
- the reduced potential for fraudulent certificates;
- reduced data entry and validation activities by national plant protection organisations, improving efficiencies;
- improved security in the transmission of certificates (compared to paper certificates);
- efficiencies in arrival and clearance of plants and plant products at the point of entry;
- reduced delays in receiving replacement phytosanitary certificates when required;
- use of existing systems in facilitating electronic certification reduces development costs;
- avoiding bilateral agreements required for direct transfer of electronic certificates;
- potential to link with the World Customs Organization “Single Window” initiative and to harmonize codes and processes; and
- use of harmonized international e-business standards between governments (UN/CEFACT).

As with CITES, the development of an electronic system has taken years and is still continuing; nevertheless it has wide support.

Again as with CITES, the ePhyto work under the IPPC has shown the benefit of collaboration with key actors, including the WCO and UN/CEFACT.

United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT)

Introduction to the UN/CEFACT

UN/CEFACT is mandated to develop a programme of work of global relevance to achieve improved coordination and cooperation in trade facilitation and electronic business standards. Its mandate covers both commercial and government business processes that can increase international trade.

UN/CEFACT's priority is facilitating national and international transactions, through the simplification and harmonization of processes, procedures and information flows. It aims in particular for *interoperability*: the property of systems to work with other systems without any restricted access or implementation.

Creation of standards

UN/CEFACT creates standards that are designed to deliver interoperability. Important UN/CEFACT standards relate to Core Components: building blocks for data modelling. One standard is the Core Components Technical Specification¹³, defining what Core Components are and how to use them.

Another standard is the Core Component Library (CCL), a library of the building blocks to use as a basis in electronic data exchange. The CCL is updated bi-annually, and is published in the form of Excel workbooks¹⁴.

The CCL is the basis for the electronic implementation of parts of the IPPC by ePhyto; and for the electronic implementation of parts of CITES by EPIX.

Some of the items in the CCL have been specifically introduced for transboundary movements of waste¹⁵.

UN/CEFACT standards are used in several electronic data exchange systems. For example the European Data Interchange for Waste Notification Systems (EUDIN) empowers exchange of data between European member States for electronic transposition of the requirements of Regulation (EC) No 1013/2006 on shipments of waste. And the Nordic TFS (transboundary shipments of waste) is a portal to establish a common digital process for digital applications and movement tracking forms pursuant to the 2006 Regulation.

Challenges and lessons learned for the Basel Convention

It would seem natural that any further individual work by Parties to implement their own electronic approaches to notification and movement documents should take into account relevant work by UN/CEFACT specifically designed to support transboundary movements of waste. And if any work is commenced under the Basel Convention on electronic approaches, that work should respect UN/CEFACT standards.

Work under UN/CEFACT is characterised by collaboration with other international organisations such as the World Trade Organization (WTO), the World Customs Organization (WCO), the Organization for Economic Co-operation and Development (OECD), the United Nations Commission on International Trade Law (UNCITRAL) and the United Nations Conference on Trade and Development (UNCTAD). Any work under the Basel Convention towards electronic approaches might benefit from similar collaboration.

¹³ The Core Components Technical Specification is available here: http://www.unece.org/cefact/codesfortrade/ccts_index.html

¹⁴ See http://www.unece.org/cefact/codesfortrade/uncccl/ccl_index.html.

¹⁵ In the "Message BIE (Business Information Entity)" worksheet, there are several items with a prefix of "TMW" (Transboundary Movements of Waste).

Also see the content relating to business requirements for transboundary movements at [Business Requirements Specification \(BRS\)](#) and [Requirements Specification Mapping \(RSM\)](#).

Annex II: Questionnaire for Parties

Electronic data approaches for the notification and movement documents

Questionnaire for Parties

Introduction

Background

By its Decision BC-12/7, the Conference of the Parties to the Basel Convention, at its twelfth meeting, adopted the work programme for the biennium 2016-2017, whereby the Committee Administering the Mechanism for Promoting Implementation and Compliance with the Basel Convention (ICC) was requested to improve the implementation of and compliance with Article 6 of the Convention by considering what additional steps could be taken to improve the implementation of and compliance with that provision.

Within this mandate the ICC agreed to explore electronic data approaches for the notification and movement documents¹.

Article 6 (1) and (2) of the Convention provide:

1. The State of export shall notify, or shall require the generator or exporter to notify, in writing, through the channel of the competent authority of the State of export, the competent authority of the States concerned of any proposed transboundary movement of hazardous wastes or other wastes. Such notification shall contain the declarations and information specified in Annex V A, written in a language acceptable to the State of import. Only one notification needs to be sent to each State concerned.

2. The State of import shall respond to the notifier in writing, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information. A copy of the final response of the State of import shall be sent to the competent authorities of the States concerned which are Parties.

Article 6 (9) of the Convention provides:

9. The Parties shall require that each person who takes charge of a transboundary movement of hazardous wastes or other wastes sign the movement document either upon delivery or receipt of the wastes in question. They shall also require that the disposer inform both the exporter and the competent authority of the State of export of receipt by the disposer of the wastes in question and, in due course, of the completion of disposal as specified in the notification. If no such information is received within the State of export, the competent authority of the State of export or the exporter shall so notify the State of import.

The eighth meeting of the Conference of the Parties to the Basel Convention invited Parties to use the notification and movement documents and the instruction on their use by decision VIII/18 (“Harmonization of forms for notification and movement documents and related instructions”)².

Purpose of questionnaire

This questionnaire seeks to collect Parties’ views and/or experience with electronic data approaches for the

notification and movement documents, with a view to identifying experience, challenges and best practices with electronic data systems for controlling transboundary movements of wastes covered by the Basel Convention. In particular, this questionnaire is designed to discover the extent to which notification and movement documents are already processed, transmitted and/or stored electronically and whether any Parties have plans to increase the use of electronic data in this regard. The questionnaire also starts a discussion about the possible benefits of and challenges with a centralized Basel Convention electronic approach to notification and movement documents.

Parties are also invited to inform and make available to stakeholders within their jurisdiction, in particular waste generators, exporters, importers and disposers, the questionnaire for stakeholders available at <http://fs.pops.int/icc-electronic-approaches-stakeholders>

Contents of the questionnaire

The questionnaire has 6 sections.

- Sections 1 and 2 of the questionnaire ask questions about the implementation of the PIC procedure: the notification document, and the movement document.
- Section 3 asks about current experience with electronic approaches and section 4 is about the prospect of a Basel electronic system. By asking questions about electronic data approaches, this questionnaire explores the use of electronic means to process, transmit and/or store information relating to the notification and movement of hazardous and other wastes.

Examples of electronic data approaches could include:

- o making notification and movement documents available in electronic form;
 - o a centralised system of electronic notification;
 - o a standardised system of notification that would enable each Party to keep their own system but which would enable a Party to communicate with the system of another Party using standardised messages; and
 - o a combination of one or more of the above three approaches.
- Section 5 allows the Party to add further information. The sixth and final section is for information about the submitting Party.

Instructions for completing and submitting the questionnaire

The ICC encourages focal points to seek the cooperation of competent authorities in completing this questionnaire.

Questionnaires are to be submitted to the Secretariat no later than 1 April 2016. Any substantive questions pertaining to this questionnaire may be addressed to Mrs. Juliette Voinov Kohler (juliette.kohler@brsmeas.org). Any questions pertaining to completing and submitting this questionnaire may be addressed to Ms. Leslie Angeles (leslie.angeles@brsmeas.org).

We thank you in advance for your kind cooperation.

The Implementation and Compliance Committee

¹ Under that mandate, the Committee has also agreed to undertake activities more specifically aimed at improving the implementation of paragraph 4 of Article 6 on transit. The work on transit is separate from, but related to the issues that this questionnaire addresses. Parties have already been requested to complete a separate questionnaire relating to paragraph 4 of Article 6 on transit.

² These forms may be found at <http://www.basel.int/Procedures/NotificationMovementDocuments/tabid/1327/Default.aspx>

Electronic data approaches for the notification and movement documents

Questionnaire for Parties

I. Notification document: notification and consent

This part of the questionnaire relates to the first stage of the Convention's prior informed consent procedure, which begins when the exporter/generator of the wastes informs the Competent Authority of the State of export of a proposed shipment of hazardous or other wastes, and ends when the Competent Authority of the State of export issues a movement document and authorizes the shipment to start.

I.1 Is the notification document **available** in electronic form in your country?

☐ Yes

☐ No

I.2 Can the notification document be **completed** electronically in your country?

☐ Yes

☐ No

I.3 Are notification documents **usually completed** electronically in your country?

☐ Yes

☐ No

☐ Other (please specify)

I.4 How are the notification documents **signed** by the State of export, exporter or generator in your country?

☐ By a manual signature

☐ By a digital signature

☐ In another way (in which case please describe)

I.5 How are notification documents by the State of export, generator or exporter **stored** in your country?

- ☐ In paper form
- ☐ In electronic form (eg. database)
- ☐ In another form (in which case please describe)

I.6 How are notification documents by the State of export, generator or exporter **transmitted** to the State of import/transit? Please review the two options below and tick all boxes that apply.

I.6.1. If in your country the notification is transmitted *by the Competent Authority of the State of export*, this notification is transmitted by:

- ☐ Post
- ☐ Fax
- ☐ Email
- ☐ In electronic form (eg. through shared database)
- ☐ In another form (in which case please describe)

☐ Not applicable

I.6.2. If in your country the notification is transmitted *by the generator or exporter*, this notification is transmitted by:

- ☐ Post
- ☐ Fax
- ☐ Email
- ☐ In electronic form (eg. through shared database)
- ☐ In another form (in which case please describe)

☐ not applicable

I.7 As State of export, how does the Competent Authority in your country **sign** notification documents to be transmitted to the State of import/transit?

- ☐ Manually
- ☐ Digitally
- ☐ In another way (in which case please describe)

I.8 As State of import/transit, how does the Competent Authority in your country **process** (receive, store, respond to) notification documents received through the Competent Authority of the State of export?

- ☐ Manually
- ☐ Digitally
- ☐ In another way (in which case please describe)

I.9 The notification procedure includes a number of **procedural stages** that engage a Competent Authority. Which, if any, of these stages should involve an electronic approach? Please tick each box that you think is relevant.

- ☐ Stage 1: The exporter/generator/State of export of the wastes informs the Competent Authority of the State of export of a proposed transboundary movement of hazardous or other wastes and submits all supporting documents, including the notification document.
- ☐ Stage 2: The Competent Authority of the State of export has no objection to the export and informs the exporter/generator/State of export thereof (in some Parties, this does not take place at this time).
- ☐ Stage 3: The notification document is transmitted to the Competent Authority of the States concerned (State of import/transit).
- ☐ Stage 4: On receipt of the notification document, the Competent Authority of the State of import/transit provide its written consent (with or without conditions) or denial (after asking for further clarification, if necessary).
- ☐ Stage 5: Once the relevant Competent Authorities have established that all the requirements of the Convention have been met and have agreed to the movement, the Competent Authority of the State of export can proceed with the issuance of the movement document and authorize the shipment to start.
- ☐ Other stages (please specify)

If you have ticked any of the above boxes, please explain why you consider an electronic approach would be helpful.

Electronic data approaches for the notification and movement documents

Questionnaire for Parties

II. Movement document: transboundary movement and confirmation of disposal

This part of the questionnaire relates to the second stage of the Convention's prior informed consent procedure, which begins following the issuance of the movement document and when the transboundary movement has been initiated and lasts until the wastes have been received by the disposer and the exporter and the State of export receive confirmation that the wastes have been disposed of as planned and in an environmentally sound manner.

II.1 Is the movement document **available** in electronic form in your country?

☐ Yes

☐ No

II.2 Can the movement document be **completed** electronically in your country?

☐ Yes

☐ No

II.3 Is the movement document **usually completed** electronically in your country?

☐ Yes

☐ No

II.4 In your country, how do the movement documents **become available** to each person who takes charge of a transboundary movement of hazardous wastes or other wastes ? Please, tick all that apply.

☐ Original

☐ Copy

☐ Fax

☐ Email

☐ In electronic form

☐ In another form (in which case please describe)

II.5 In your country, how are the movement documents **signed and stamped**?

☐ Manually

☐ Digitally

☐ In another way (in which case please describe)

II.6 As State of export, how do you receive confirmation from the disposer that waste **has been received and disposed of** as planned and in an environmentally sound manner? Please, tick all that apply.

☐ Post

☐ Fax

☐ Email

☐ In electronic form

☐ In another form (in which case please describe)

II.7 As State of import, how are you informed by the State of export that confirmation of reception and disposal **has not been received** from the disposer? Please, tick all that apply.

☐ Post

☐ Fax

☐ Email

☐ In electronic form

☐ In another form (in which case please describe)

II.8 The movement and disposal procedures include a **number of stages**. Which, if any, of these stages should involve an electronic approach? Please tick each box that is relevant.

- ☐ Stage 1: The movement document, which contains important information, accompanies the wastes and is signed by each person taking charge of it.
- ☐ Stage 2: The exporter and Competent Authority of the State of export receive confirmation that the wastes moved across borders have been received and disposed of by the disposer as planned and in an environmentally sound manner.
- ☐ Stage 3: The Competent Authority of the State of export that has not received the confirmation that disposal has been completed informs the Competent Authority of the State of import accordingly.



Other stages (please specify)

Electronic data approaches for the notification and movement documents

Questionnaire for Parties

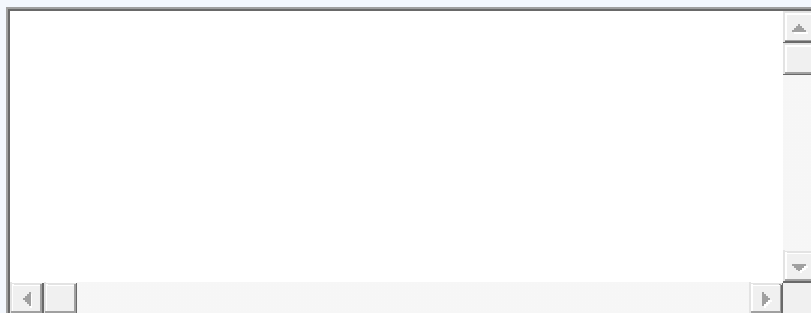
III. Current experience of electronic approaches

III.1 In your country, are there **electronic approaches** to any of the following waste movement processes? Please tick the ones that apply.

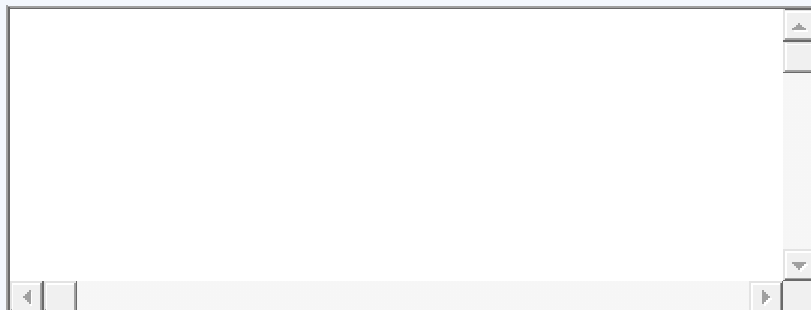
- ☐ Contract between waste exporter and disposer
- ☐ Notification of proposed movement
- ☐ Response to notification of proposed movement
- ☐ Issuance of movement document
- ☐ Tracking/signature of movement document
- ☐ National movements of waste following transboundary movement
- ☐ Notification of reception of wastes
- ☐ Notification of confirmation of disposal
- ☐ Information that no confirmation of disposal was received
- ☐ Other (specify)

III.2 If you already have an electronic approach, name the most significant **challenges** you face when implementing that approach.

III.3 If you already have an electronic approach, name the most significant **benefits** that approach brings.

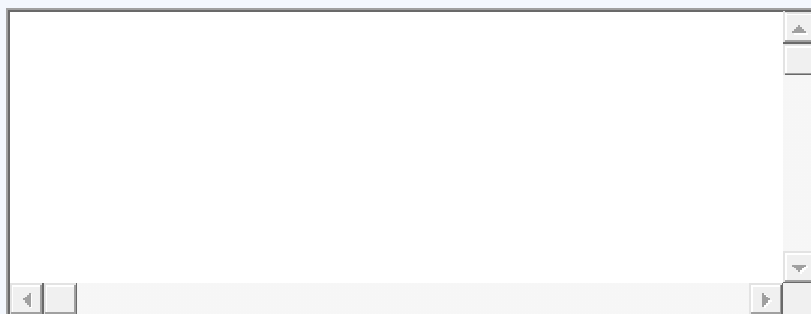
A large, empty rectangular text box with a thin border. It features a vertical scrollbar on the right side and a horizontal scrollbar at the bottom, indicating it is a scrollable area for text input.

III.4 Have you carried out any **studies** on possible electronic approaches? If possible, please provide us with a brief summary of the findings, or a copy thereof.

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Attach a copy:

III.5 What are the most important **practical challenges** you face with respect to the movement of waste?

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Electronic data approaches for the notification and movement documents

Questionnaire for Parties

IV. A Basel Convention system for electronic data approaches to notification and movement

IV.1 Do you think there is a need for an initiative to provide for electronic data approaches to notification and movement, which would **be available to all Parties** to the Basel Convention (a Basel Convention electronic system for transboundary movements)?



Yes

If so, why?



No

If so, why?

IV.2 In your opinion, which of the listed **processes** should be supported by a Basel Convention electronic system for transboundary movements? Please tick the relevant box.



Contract between waste exporter and disposer



Notification of proposed movement



Response to notification of proposed movement



Issuance of movement document



Tracking/signature of movement document



National movements of waste following transboundary movement



Notification of reception of wastes

- ☐ Notification of confirmation of disposal
- ☐ Information that no confirmation of disposal was received
- ☐ Other (specify)

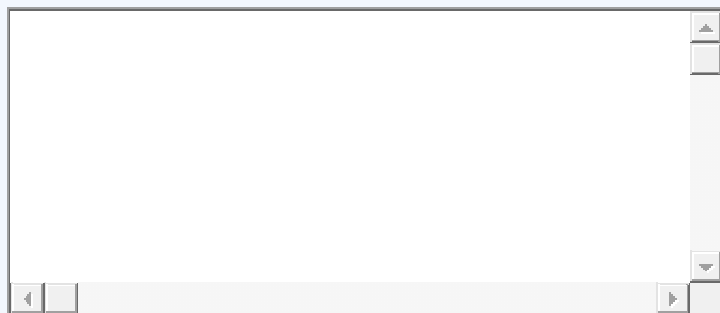
IV.3 Which, if any, of the **alternatives** listed below for a Basel Convention electronic system for transboundary movements would be your preference? Please, tick the relevant box and explain your answer.

- ☐ A *central system* managed by the Secretariat and accessible by all Parties and other stakeholders

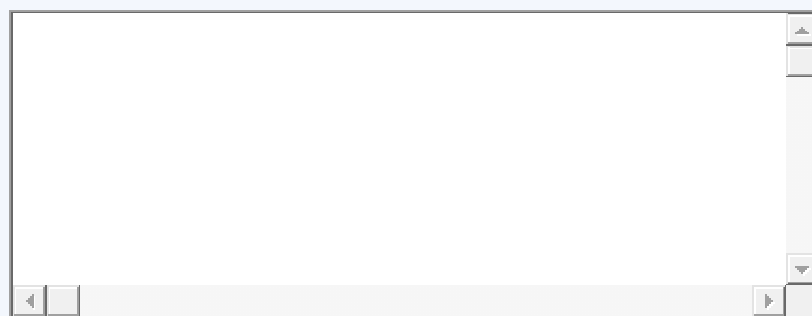
- ☐ A *decentralised system*, where each Party would have its own system, which could communicate with other systems using standardized messages

- ☐ An *intermediate system*, with some Parties having their own systems and others not, with the Secretariat playing the role of the centralized repository of the notifications.

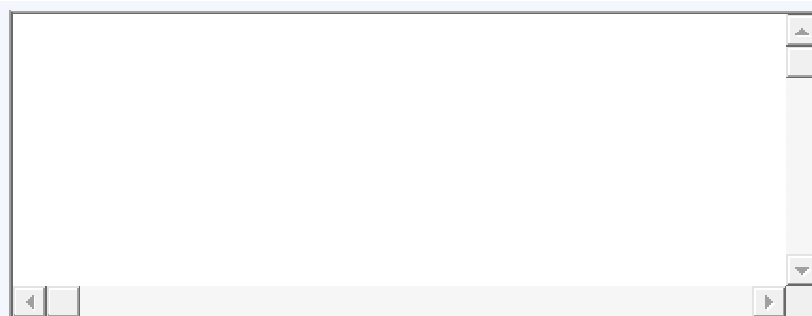
☐ Other (please specify)

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IV.4 If you would favour a Basel Convention electronic system for transboundary movements, what would you expect the main **benefits** to be?

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IV.5 If you would not favour a Basel Convention electronic system for transboundary movements, what would you expect the main **challenges** to be?

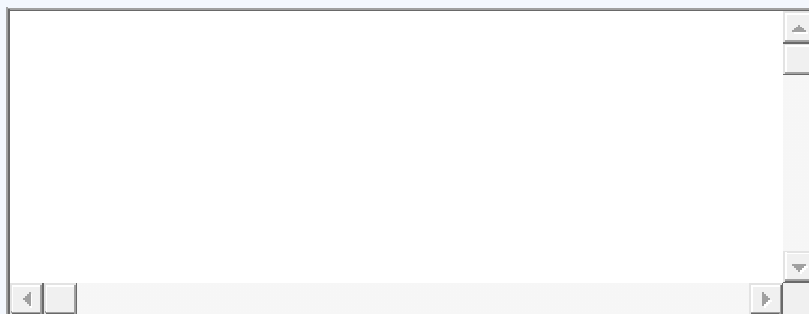
A large, empty rectangular text box with a light gray border. It includes standard scrollbars on the right and bottom edges, indicating it is a multi-line input field.

Electronic data approaches for the notification and movement documents

Questionnaire for Parties

V. Other relevant information

V.1 Please add any **additional information or comments** pertaining to an electronic data approach that is not included in answers to the above questions and could improve the implementation of the Basel Convention control procedure.



V.2 Please list the **stakeholders** within your jurisdiction to whom you have sent the questionnaire for stakeholders available at <http://fs.pops.int/icc-electronic-approaches-stakeholders>. You may provide the information in the box below or attach a list.

Name of stakeholder:

Contact person:

Address:

E-mail:

Name of stakeholder:

Contact person:

Address:

Email:

Name of stakeholder:

Contact person:

Address:

Email:

Attach list:

Electronic data approaches for the notification and movement documents

Questionnaire for Parties

VI. Submitter information

Submitting Party:

Party:

Contact details of the person who completed the questionnaire:

Name:

Title:

Address:

Telephone:

Fax:

E-mail:

To submit the questionnaire, please enter the Submission password provided and click on "Next page".

If you do not wish to submit the questionnaire at this time, you can click on the "Save" button and exit the questionnaire.

Submission password:

Annex III: Questionnaire for Stakeholders

Electronic data approaches for the notification and movement documents

Questionnaire for stakeholders

Introduction

Background

By its Decision BC-12/7, the Conference of the Parties to the Basel Convention, at its twelfth meeting, adopted the work programme for the biennium 2016-2017, whereby the Committee Administering the Mechanism for Promoting Implementation and Compliance with the Basel Convention (ICC) was requested to improve the implementation of and compliance with Article 6 of the Convention by considering what additional steps could be taken to improve the implementation of and compliance with that provision.

Within this mandate the ICC agreed to explore electronic data approaches for the notification and movement documents¹.

Article 6 (1) and (2) of the Convention provide:

1. The State of export shall notify, or shall require the generator or exporter to notify, in writing, through the channel of the competent authority of the State of export, the competent authority of the States concerned of any proposed transboundary movement of hazardous wastes or other wastes. Such notification shall contain the declarations and information specified in Annex V A, written in a language acceptable to the State of import. Only one notification needs to be sent to each State concerned.

2. The State of import shall respond to the notifier in writing, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information. A copy of the final response of the State of import shall be sent to the competent authorities of the States concerned which are Parties.

Article 6 (9) of the Convention provides:

9. The Parties shall require that each person who takes charge of a transboundary movement of hazardous wastes or other wastes sign the movement document either upon delivery or receipt of the wastes in question. They shall also require that the disposer inform both the exporter and the competent authority of the State of export of receipt by the disposer of the wastes in question and, in due course, of the completion of disposal as specified in the notification. If no such information is received within the State of export, the competent authority of the State of export or the exporter shall so notify the State of import.

The eighth meeting of the Conference of the Parties to the Basel Convention invited Parties to use the notification and movement documents and the instruction on their use by decision VIII/18 (“Harmonization of forms for notification and movement documents and related instructions”)².

Purpose of questionnaire

This questionnaire seeks to collect Stakeholders’ views and/or experience with electronic data approaches for the notification and movement documents, with a view to identifying experience, challenges and best practices with electronic data systems for controlling transboundary movements of wastes covered by the Basel Convention. In

particular, this questionnaire is designed to discover the extent to which notification and movement documents are already processed, transmitted and/or stored electronically and whether any stakeholders would support plans to increase the use of electronic data in this regard. The questionnaire also starts a discussion about the possible benefits of and challenges with a centralized Basel Convention electronic approach to notification and movement documents.

Contents of the questionnaire

The questionnaire has 6 sections.

- Sections 1 and 2 of the questionnaire ask questions about the implementation of the PIC procedure: the notification document, and the movement document.
- Section 3 asks about current experience with electronic approaches and section 4 is about the prospect of a Basel electronic system. By asking questions about electronic data approaches, this questionnaire explores the use of electronic means to process, transmit and/or store information relating to the notification and movement of hazardous and other wastes.

Examples of electronic data approaches could include:

- o making notification and movement documents available in electronic form;
 - o a centralised system of electronic notification;
 - o a standardised system of notification that would enable each Party to keep their own system but which would enable a Party to communicate with the system of another Party using standardised messages; and
 - o a combination of one or more of the above three approaches.
- Section 5 allows the stakeholder to add further information. The sixth and final section is for information about the submitting stakeholder.

Instructions for completing and submitting the questionnaire

Questionnaires are to be submitted to the Secretariat no later than **1 April 2016**. Any substantive questions pertaining to this questionnaire may be addressed to Mrs. Juliette Voinov Kohler (juliette.kohler@brsmeas.org). Any questions pertaining to completing and submitting this questionnaire may be addressed to Ms. Leslie Angeles (leslie.angeles@brsmeas.org).

We thank you in advance for your kind cooperation.

The Implementation and Compliance Committee

¹ Under that mandate, the Committee has also agreed to undertake activities more specifically aimed at improving the implementation of paragraph 4 of Article 6 on **transit**. The work on transit is separate from, but related to the issues that this questionnaire addresses. Parties have already been requested to complete a separate questionnaire relating to paragraph 4 of Article 6 on transit.

² These forms may be found at <http://www.basel.int/Procedures/NotificationMovementDocuments/tabid/1327/Default.aspx>

Electronic data approaches for the notification and movement documents

Questionnaire for stakeholders

I. Notification document: notification and consent

This part of the questionnaire relates to the first stage of the Convention's prior informed consent procedure, which begins when the exporter/generator of the wastes informs the Competent Authority of the State of export of a proposed shipment of hazardous or other wastes, and ends when the Competent Authority of the State of export issues a movement document and authorizes the shipment to start.

I.1 The notification procedure includes a number of **procedural stages**. Which, if any, of these stages should involve an electronic approach? Please tick each box that is relevant.

☐ Stage 1: The exporter/generator/State of export of the wastes informs the Competent Authority of the State of export of a proposed transboundary movement of hazardous or other wastes.

☐ Stage 2: The Competent Authority of the State of export has no objection to the export and informs the exporter/generator/State of export thereof.

☐ Stage 3: The notification document is completed and transmitted to the Competent Authority of the States concerned (State of import/transit).

☐ Stage 4: On receipt of the notification document, the Competent Authority of the State of import/ transit provide its written consent (with or without conditions) or denial (after asking for further clarification, if necessary).

☐ Stage 5: Once the relevant Competent Authorities have established that all the requirements of the Convention have been met and have agreed to the movement, the Competent Authority of the State of export can proceed with the issuance of the movement document and authorize the shipment to start.

☐ Other stages (please specify)

I.2 If you have ticked any of the above boxes, please **explain** why you consider an electronic approach would be helpful.

Electronic data approaches for the notification and movement documents

Questionnaire for stakeholders

II. Movement document: Transboundary movement and confirmation of disposal

This part of the questionnaire relates to the second stage of the Convention's prior informed consent procedure, which begins when the transboundary movement has been initiated and lasts until the wastes have been received by the disposer and the generator and the country of export receive confirmation that the wastes have been disposed of as planned and in an environmentally sound manner.

The movement and disposal procedures include a number of **stages**. Which, if any, of these stages should involve an electronic approach? Please tick each box that is relevant.

☐ Stage 1: The movement document, which contains important information, accompanies the wastes and is signed by each person taking charge of it.

☐ Stage 2: The exporter and Competent Authority of the State of export receive confirmation that the wastes moved across borders have been received and disposed of by the disposer as planned and in an environmentally sound manner.

☐ Stage 3: The Competent Authority of the State of export that has not received the confirmation that disposal has been completed informs the Competent Authority of the State of import accordingly.

☐ Other stages (please specify)

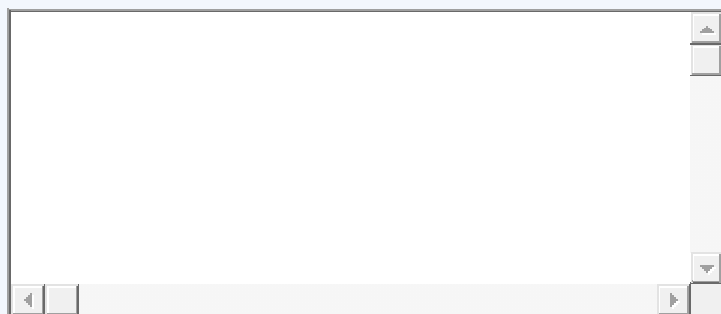
Electronic data approaches for the notification and movement documents

Questionnaire for stakeholders

III. Current experience of electronic approaches

III.1 Have you already **used** electronic approaches to any of the following waste movement processes? Please tick the ones that apply.

- ☐ Contract between waste exporter and disposer
- ☐ Notification of proposed movement
- ☐ Response to notification of proposed movement
- ☐ Issuance of movement document
- ☐ Tracking/signature of movement document
- ☐ National movements of waste following transboundary movement
- ☐ Notification of reception of wastes
- ☐ Notification of confirmation of disposal
- ☐ Information that no confirmation of disposal was received
- ☐ Other (specify)



III.2 If you already have an electronic approach, name the most significant **benefits** that approach brings.

III.3 Please describe any **best practices** you have encountered with respect to electronic approaches to transboundary movements of hazardous and other wastes.

III.4 If you already have used an electronic approach, name the most significant **challenges** you face when implementing that approach.

III.5 Have you carried out any **studies** on possible electronic approaches? If possible, please provide us with a brief summary of the findings, or a copy thereof.

Attach a copy (if possible):

upload file

Electronic data approaches for the notification and movement documents

Questionnaire for stakeholders

IV. A Basel Convention system for electronic data approaches to notification and movement

IV.1 Do you think there is a need for an initiative to provide for electronic data approaches to notification and movement, which would **be available to all Parties** to the Basel Convention (a Basel Convention electronic system for transboundary movements)?



Yes

If so, why?



No

If so, why?

IV.2 In your opinion, which of the listed **processes** should be supported by a Basel Convention electronic system for transboundary movements? Please tick the relevant box.



Contract between waste exporter and disposer



Notification of proposed movement



Response to notification of proposed movement



Issuance of movement document



Tracking/signature of movement document

- ☐ National movements of waste following transboundary movement
- ☐ Notification of reception of wastes
- ☐ Notification of confirmation of disposal
- ☐ Information that no confirmation of disposal was received
- ☐ Other (specify)

IV.3 Which, if any, of the **alternatives** listed below for a Basel Convention electronic system for transboundary movements would be your preference? Please, tick the relevant box and explain your answer.

- ☐ A *central system* managed by the Secretariat and accessible by all Parties and other stakeholders

- ☐ A *decentralised system*, where each Party would have its own system, which could communicate with other systems using standardized messages

- ☐ An *intermediate system*, with some Parties having their own systems and others not, with the Secretariat playing the role of the centralized repository of the notifications.


☐ Other (please specify)

IV.4 If you would favour a Basel Convention electronic system for transboundary movements, what would you expect the main **benefits** to be?

IV.5 If you would not favour a Basel Convention electronic system for transboundary movements, what would you expect the main **challenges** to be?

V. Other relevant information

	Shipments/operations	Number of shipments per year / Size of operation (in tonnes)
Waste shipments within your region	<input type="checkbox"/>	<input type="text"/>
Waste shipments across regions	<input type="checkbox"/>	<input type="text"/>
Waste generation	<input type="checkbox"/>	<input type="text"/>
Exports of waste	<input type="checkbox"/>	<input type="text"/>
Imports of waste	<input type="checkbox"/>	<input type="text"/>
Disposal of waste	<input type="checkbox"/>	<input type="text"/>
Other	<input type="checkbox"/>	<input type="text"/>



V.2 Please add any **additional information or comments** pertaining to an electronic data approach that is not included in answers to the above questions and could improve the implementation of the Basel Convention control procedure.

Electronic data approaches for the notification and movement documents

Questionnaire for stakeholders

VI. Submitter information

Submitting Stakeholder:

Organization:

Contact details of the person who completed the questionnaire:

Name:

Title:

Department:

Address:

Country:

Telephone:

Fax:

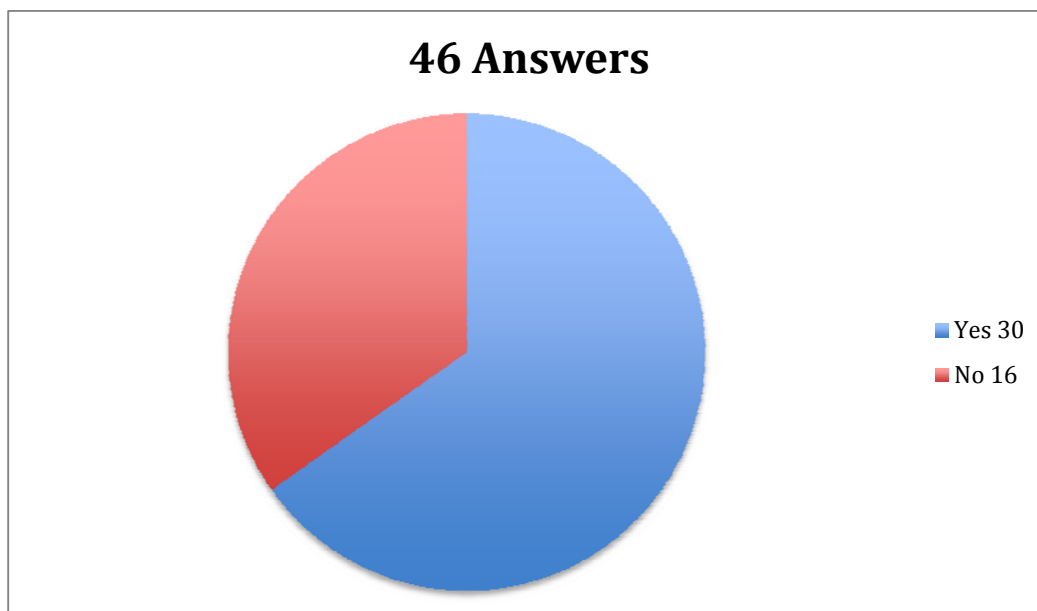
E-mail:

Annex IV: Summary of information collected from parties through the questionnaire

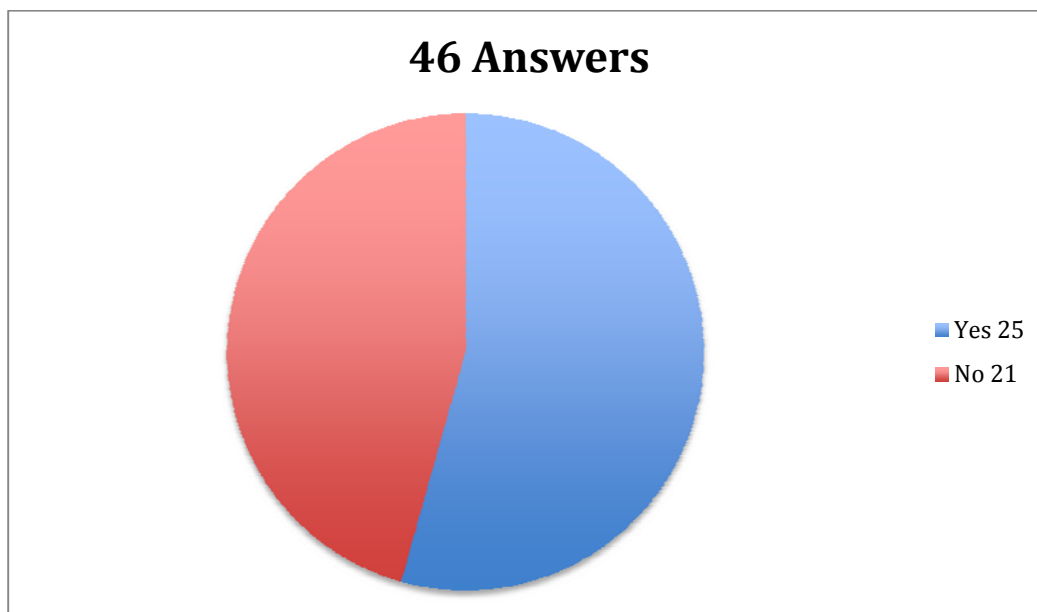
I. Notification document: notification and consent

This part of the questionnaire related to the first stage of the Convention's prior informed consent procedure, which begins when the exporter/generator of the wastes informs the Competent Authority of the State of export of a proposed shipment of hazardous or other wastes, and ends when the Competent Authority of the State of export issues a movement document and authorizes the shipment to start.

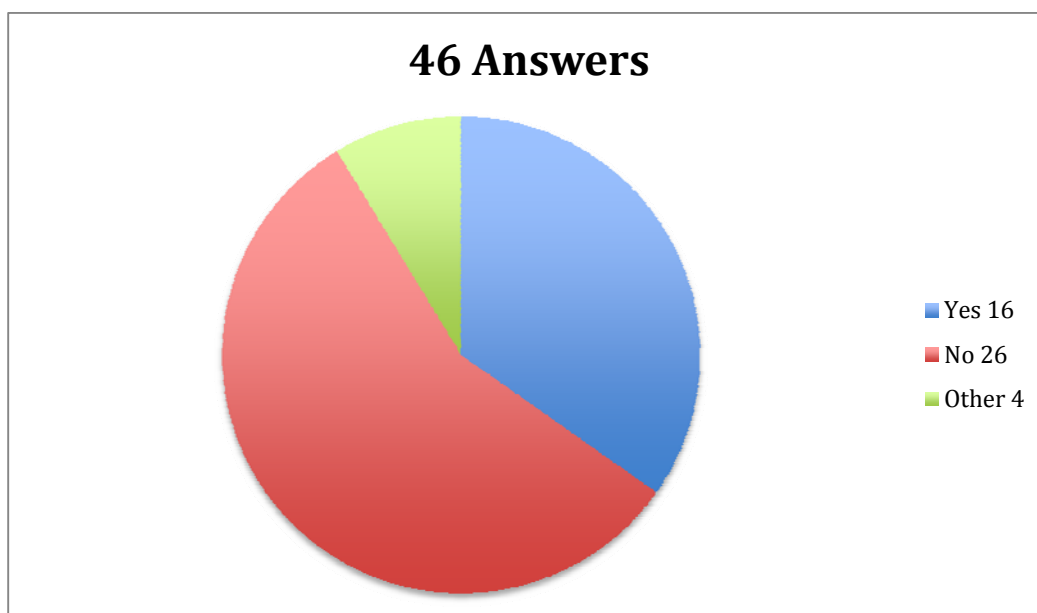
I.1 Is the notification document available in electronic form in your country?



I.2 Can the notification document be completed electronically in your country?



I.3 Are notification documents usually completed electronically in your country?



Those Parties that answered "other" tended to use a mixture of hard copy and electronic notification.

I.4 How are the notification documents signed by the State of export, exporter or generator in your country?

By a manual signature

By a digital signature



Of those Parties that answered “other”, one used a hybrid of manual and electronic, and the other had no experience of shipments.

1.5 How are notification documents by the State of export, generator or exporter stored in your country?



Those Parties that answered “other” tended to use a combination of electronic and paper forms.

1.6 How are notification documents by the State of export, generator or exporter transmitted to the State of import/transit? Please review the two options below and tick all boxes that apply.

1.6.1. If in your country the notification is transmitted by the Competent Authority of the State of export, this notification is transmitted by:

Post

Fax

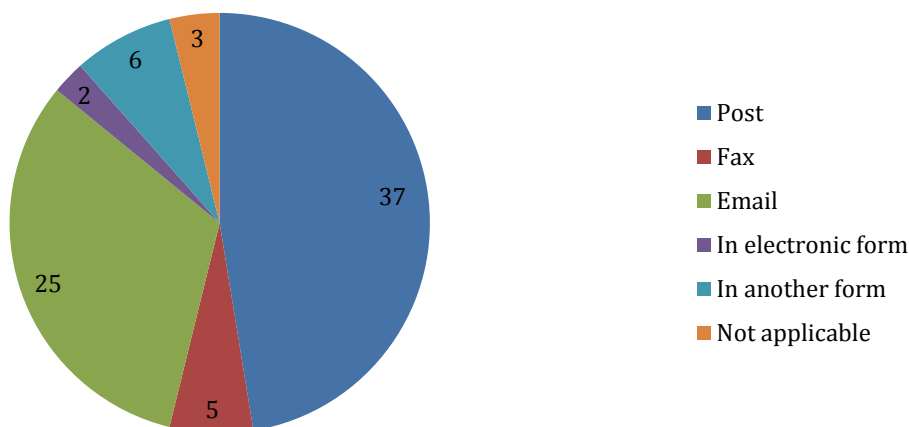
Email

In electronic form (eg. through shared database)

In another form (in which case please describe)

Not applicable

I.6.1. If in your country the notification is transmitted by the Competent Authority of the State of export, this notification is transmitted by:



Again, those parties that said the transmission was in another form tended to have an experience of different methods of notification. It was reported that three countries have developed a data sharing system that allows each competent authority to keep its own system but to communicate with other competent authorities using standardized messages.

I.6.2. If in your country the notification is transmitted by the generator or exporter, this notification is transmitted by:

Post

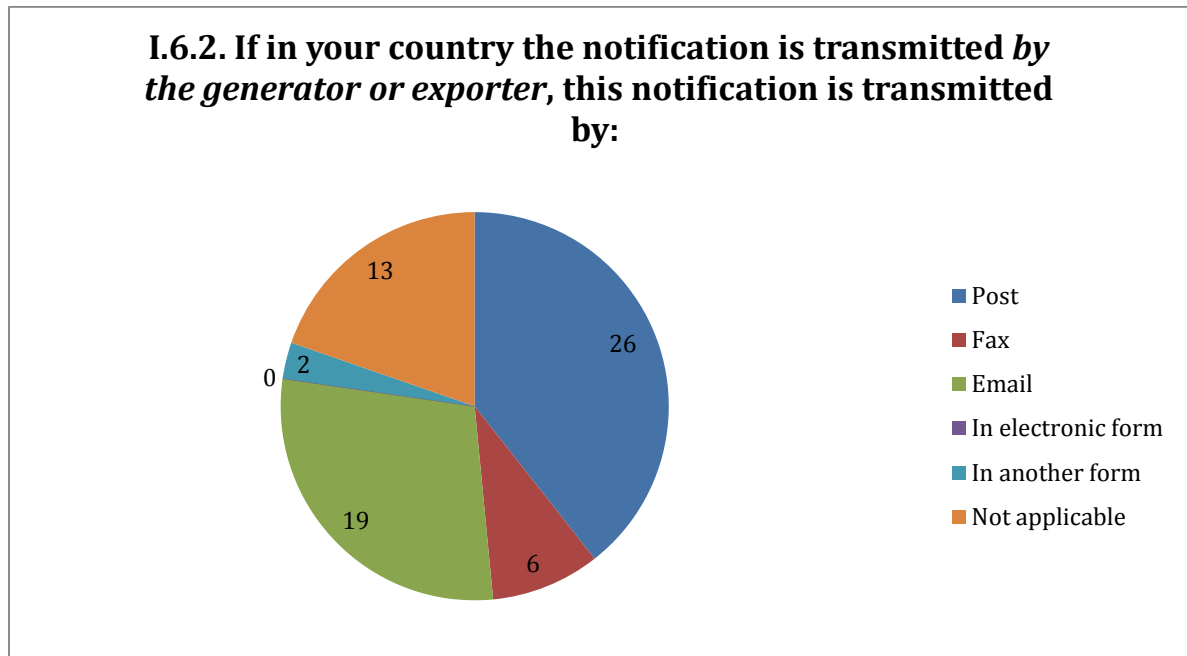
Fax

Email

In electronic form (eg. through shared database)

In another form (in which case please describe)

Not applicable



I.7 As State of export, how does the Competent Authority in your country sign notification documents to be transmitted to the State of import/transit?

Manually

Digitally

In another way (in which case please describe)



Those that answered “other” did so either because they were using innovative electronic methods or because they had no experience of transboundary movements.

I.8 As State of import/transit, how does the Competent Authority in your country process (receive, store, respond to) notification documents received through the Competent Authority of the State of export?

Manually

Digitally

In another way (in which case please describe)



I.9 The notification procedure includes a number of procedural stages that engage a Competent Authority. Which, if any, of these stages should involve an electronic approach? Please tick each box that you think is relevant.

Stage 1: The exporter/generator/State of export of the wastes informs the Competent Authority of the State of export of a proposed transboundary movement of hazardous or other wastes and submits all supporting documents, including the notification document.

Stage 2: The Competent Authority of the State of export has no objection to the export and informs the exporter/generator/State of export thereof (in some Parties, this does not take place at this time).

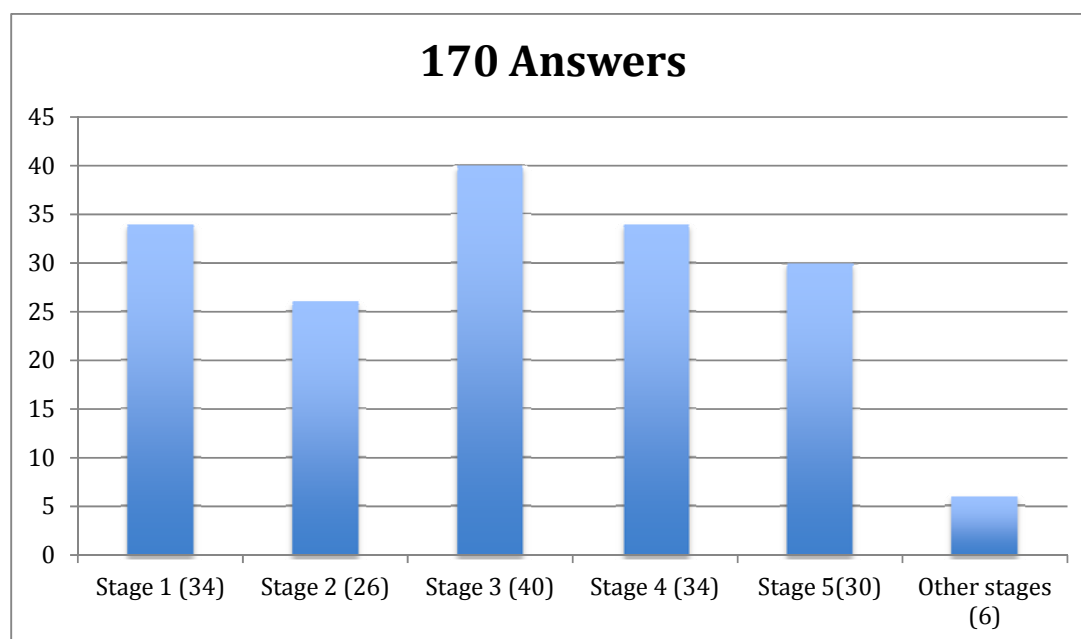
Stage 3: The notification document is transmitted to the Competent Authority of the States concerned (State of import/transit).

Stage 4: On receipt of the notification document, the Competent Authority of the State of import/transit provide its written consent (with or without conditions) or denial (after asking for further clarification, if necessary).

Stage 5: Once the relevant Competent Authorities have established that all the requirements of the Convention have been met and have agreed to the movement, the Competent Authority of the State of export can proceed with the issuance of the movement document and authorize the shipment to start.

Other stages (please specify)

If you have ticked any of the above boxes, please explain why you consider an electronic approach would be helpful.



A substantial majority of Parties considered that electronic notification would be helpful. Some of the reasons given are listed below.

The transmission of documents is time consuming, and the electronic transmission of documents would be much **faster** raising efficiency, ensuring immediate receipt of documents and facilitating the consent process.

An electronic approach would be **cheaper**, avoiding more costly and burdensome communication channels such as post, fax, email and courier, and speed up the information flow. The administrative burden would be reduced.

There would be better availability of **information**. Storage of information would be become easier and so would dissemination of the information to the public. Enhanced record keeping would provide more transparency to stakeholders.

Authorities would be able more easily to track the movement of permitted waste and to find out whether movements were unauthorized. So there would be **better enforcement**.

There would be **better transmission of data** and increased security. For example, posting information sometimes leads to the loss of notification documentation or its transmission to the wrong authorities.

There would be other **improvements in process**: the consent procedure from transit countries would be easier, and in particular the implementation of tacit consent would be facilitated. The harmonisation of the process would bring efficiencies. This would bring benefits; delay in the processing of information could harm human health and the environment. One country reported that it received dozens notifications per year, and that shipments could take 12 months; in the absence of an electronic system it is difficulty to track and trace shipments.

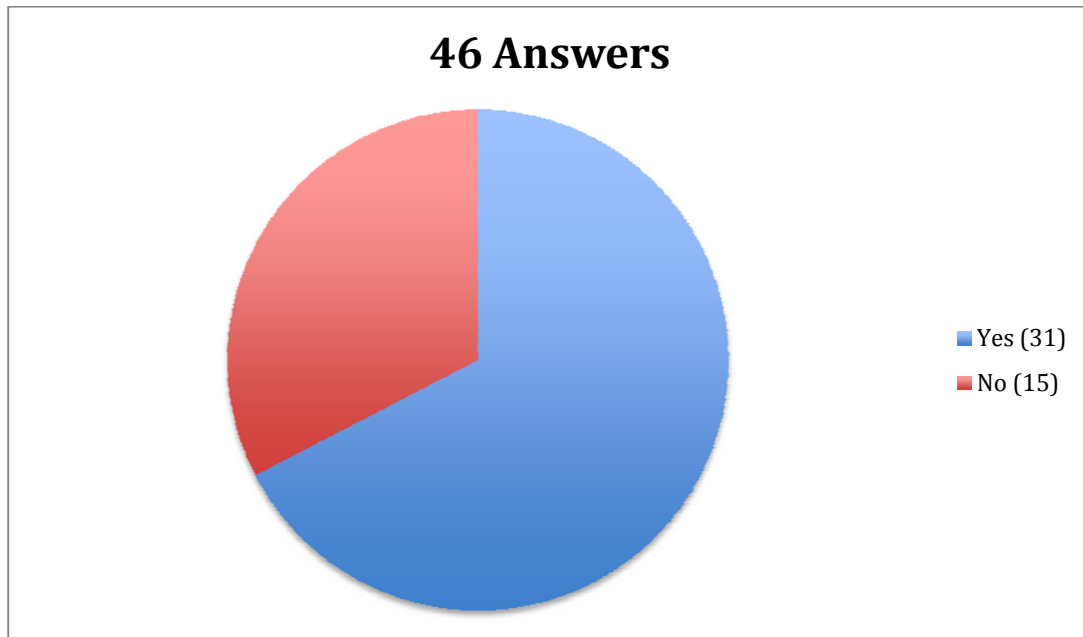
There were some **caveats**. There would have to be widespread acceptance of an electronic approach. One Party suggested an incremental implementation might be more valuable than a big mandatory change. There was a call for a system to address the most pressing issues and avoid nice-to-have elaborations. One Party was concerned about a lack of internet connectivity.

II. Movement document: transboundary movement and confirmation of disposal

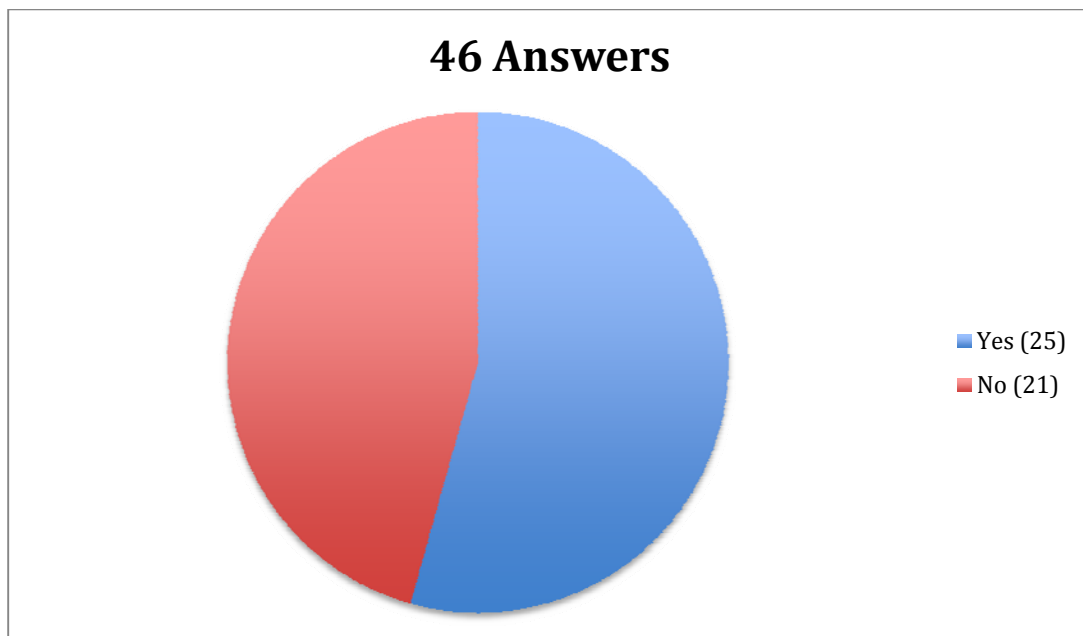
II. Movement document: transboundary movement and confirmation of disposal

This part of the questionnaire related to the second stage of the Convention's prior informed consent procedure, which begins following the issuance of the movement document and when the transboundary movement has been initiated and lasts until the wastes have been received by the disposer and the exporter and the State of export receive confirmation that the wastes have been disposed of as planned and in an environmentally sound manner.

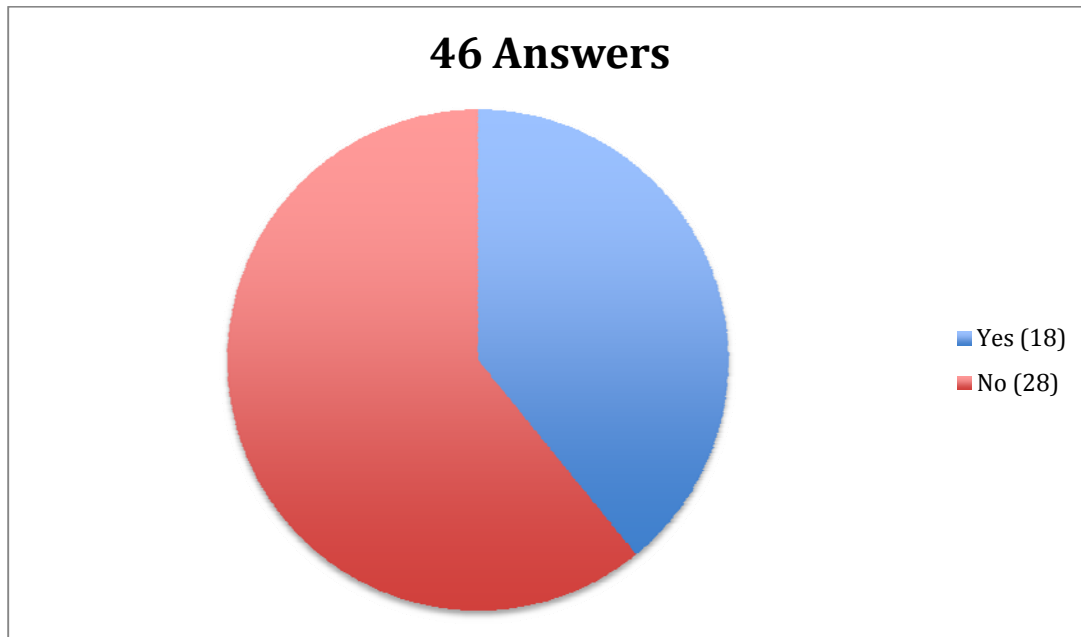
II.1 Is the movement document available in electronic form in your country?



II.2 Can the movement document be completed electronically in your country?



II.3 Is the movement document usually completed electronically in your country?



II.4 In your country, how do the movement documents become available to each person who takes charge of a transboundary movement of hazardous wastes or other wastes? Please, tick all that apply.

Original

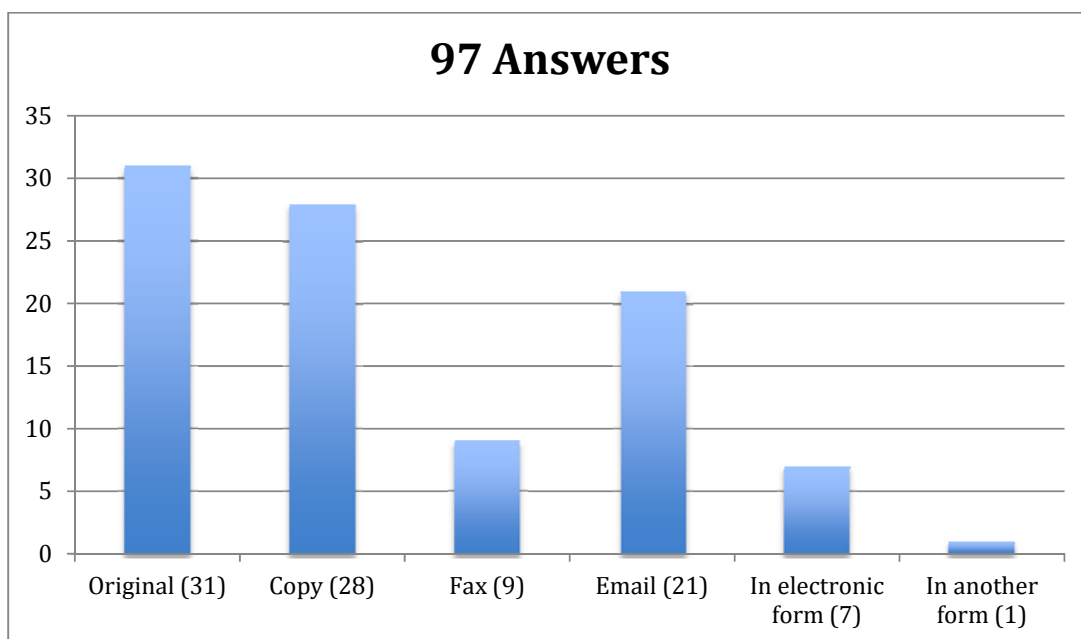
Copy

Fax

Email

In electronic form

In another form (in which case please describe) ☐

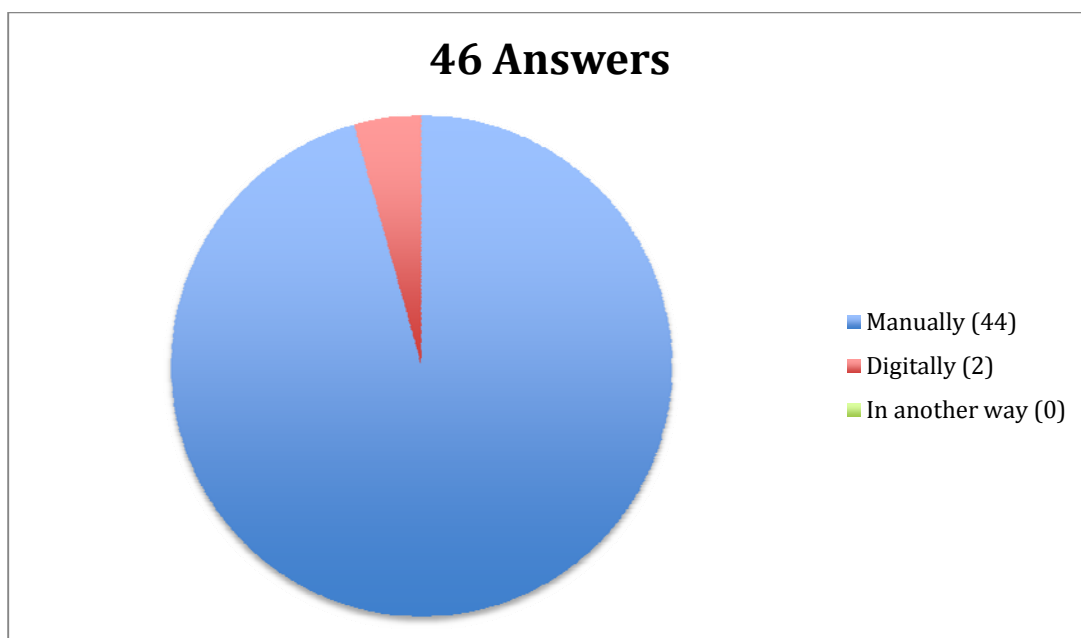


II.5 In your country, how are the movement documents signed and stamped?

Manually

Digitally

In another way (in which case please describe) ☐



II.6 As State of export, how do you receive confirmation from the disposer that waste has been received and disposed of as planned and in an environmentally sound manner? Please, tick all that apply.

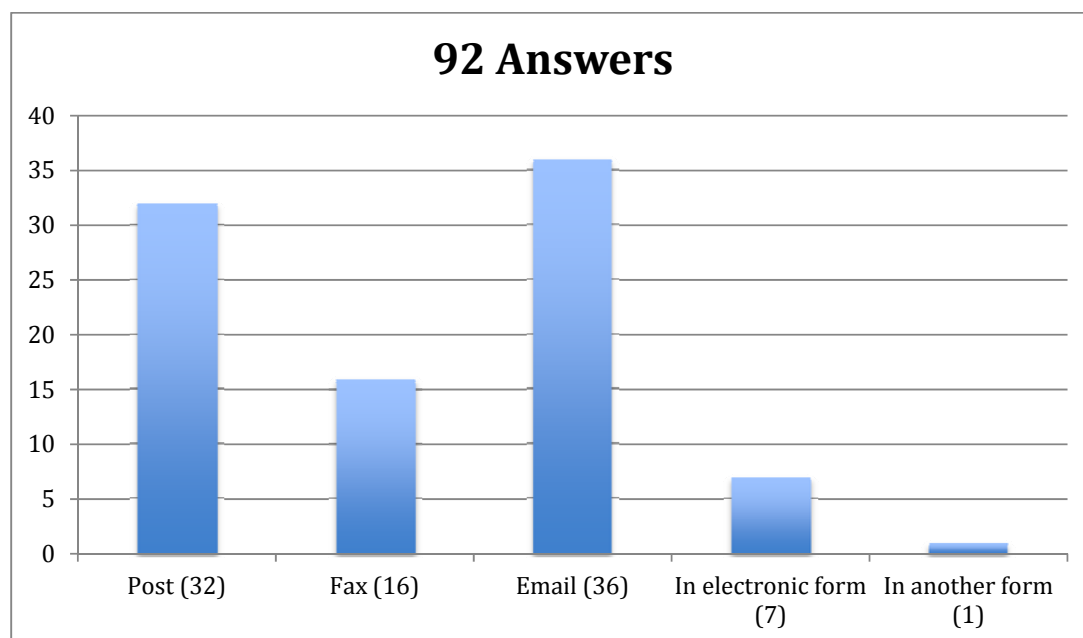
Post

Fax

Email

In electronic form

In another form (in which case please describe) ☐



II.7 As State of import, how are you informed by the State of export that confirmation of reception and disposal has not been received from the disposer? Please, tick all that apply.

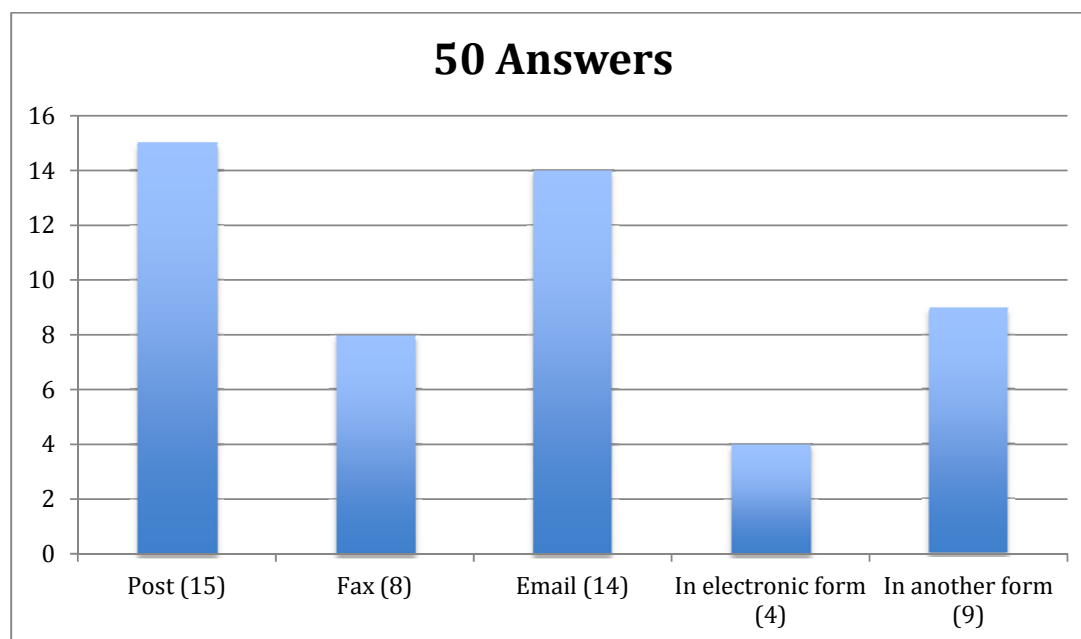
Post

Fax

Email

In electronic form

In another form (in which case please describe) ☐



Those that answered “in another form” did so principally because of prohibitions on importation.

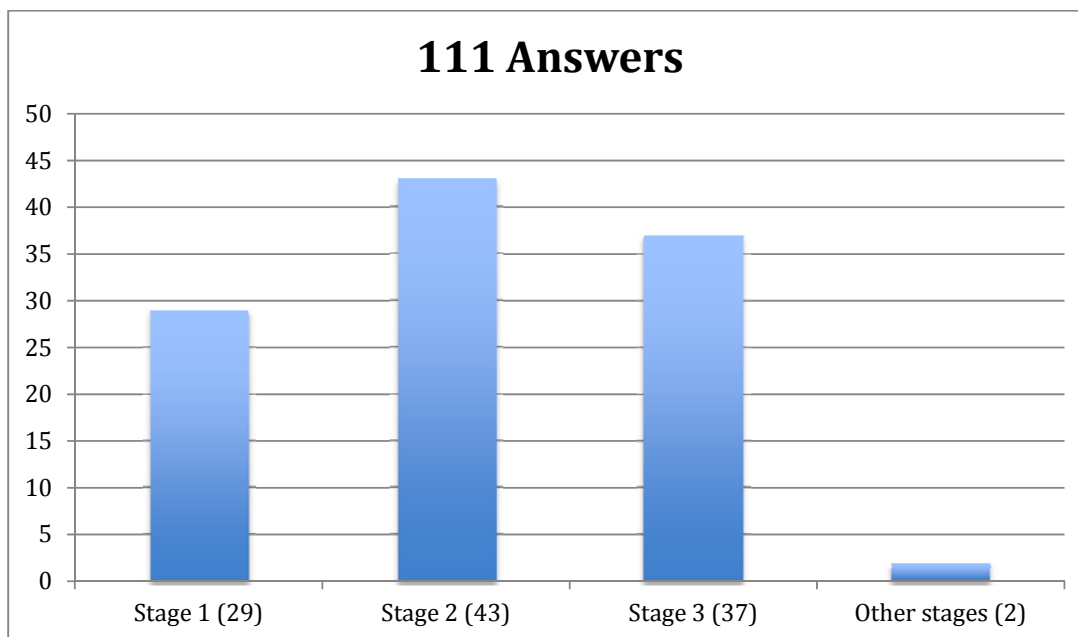
II.8 The movement and disposal procedures include a number of stages. Which, if any, of these stages should involve an electronic approach? Please tick each box that is relevant.

Stage 1: The movement document, which contains important information, accompanies the wastes and is signed by each person taking charge of it.

Stage 2: The exporter and Competent Authority of the State of export receive confirmation that the wastes moved across borders have been received and disposed of by the disposer as planned and in an environmentally sound manner.

Stage 3: The Competent Authority of the State of export that has not received the confirmation that disposal has been completed informs the Competent Authority of the State of import accordingly.

Other stages (please specify)



III. Current experience of electronic approaches

III.1 In your country, are there electronic approaches to any of the following waste movement processes? Please tick the ones that apply.

Contract between waste exporter and disposer

Notification of proposed movement

Response to notification of proposed movement

Issuance of movement document

Tracking/signature of movement document

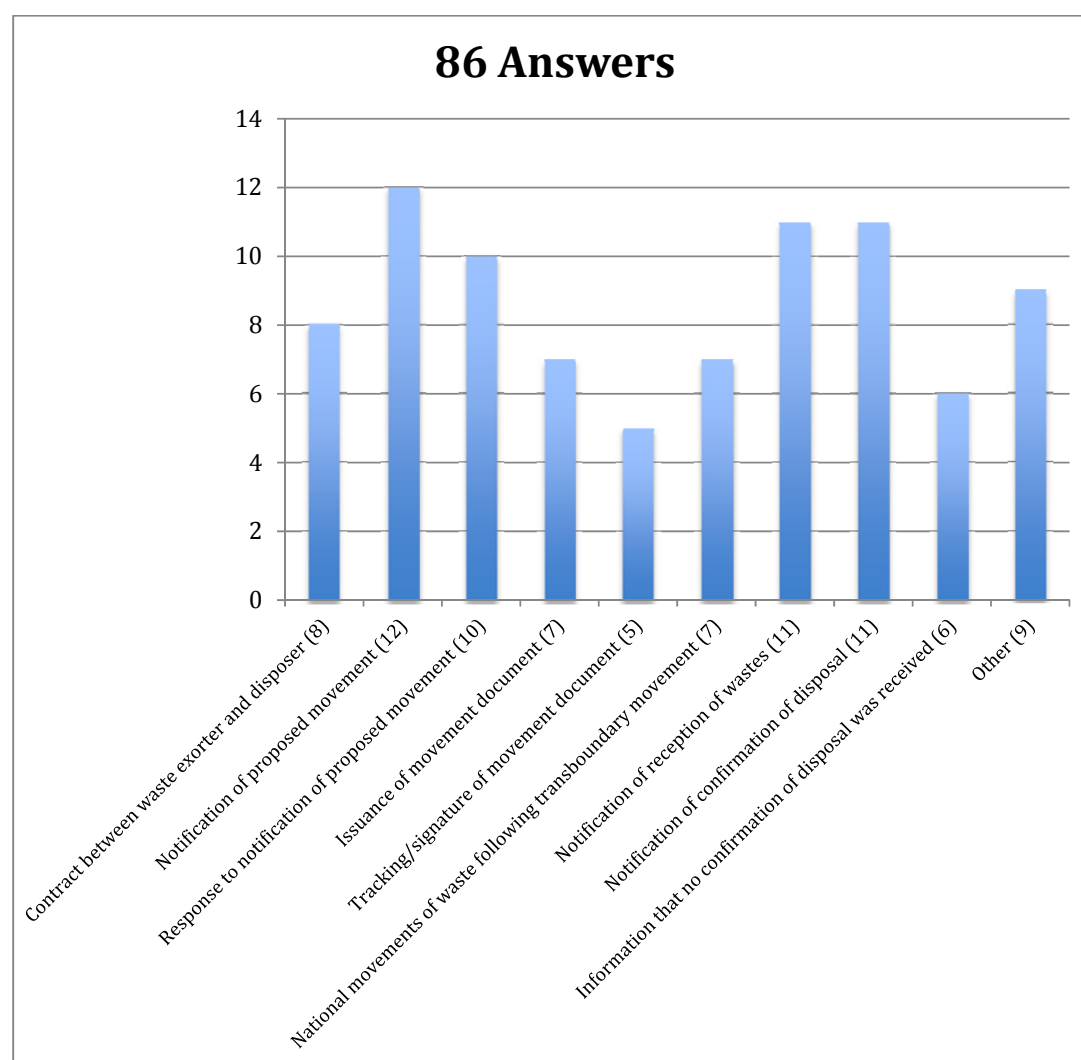
National movements of waste following transboundary movement

Notification of reception of wastes

Notification of confirmation of disposal

Information that no confirmation of disposal was received

Other (specify)



A number of Parties reported no experience of electronic approaches, although some reported that they hope to enhance their capabilities shortly.

One country reported that an electronic approach was in place for its main partner for transboundary movements, but that communication with others was paper-based. There were reports of scanned forms being sent by email.

III.2 If you already have an electronic approach, name the most significant challenges you face when implementing that approach.

Parties listed a number of challenges, many of which were **technical**, and included

- the development of the electronic system itself;
- the transition phase with stakeholders and other governmental partners;
- the need to establish a site available electronically for the purpose of access to information and responding to any inquiries;

- poor internet connection of some stakeholders;
- bugs in programmes;
- the necessity to upgrade systems;
- understanding how an electronic platform should function to succeed and adapt to the user's business reality;
- meeting requests for data security (e.g. requests for an electronic signature);
- the lack of a common format for data exchange.

Unsurprisingly **the absence of matching electronic capability** can be a problem; for example it was reported that the non-existence of a European/international platform results in notifications through a variety of media.

There were issues with **organisation**; one Party reported that it could be difficult to have up-to-date e-mail addresses of the competent authorities involved in the cross-border movement. One party reported that stakeholders requested an electronic system but did not use it when it became available; and competent authorities were reluctant to accept the systems of other competent authorities.

Expense can be an issue: one party presented a new electronic system at a workshop but could not implement the system because of the associated financial challenge. And issues were raised about training.

III.3 If you already have an electronic approach, name the most significant benefits that approach brings.

A number of significant benefits were reported. Parties said electronic approaches -

- **save time by -**
 - reducing processing time, with fast response times, clarifications and corrections;
 - streamlining communication channels and facilitating communication;
 - facilitating the completion of documents; and
 - assisting the storage and retrieval of information.
- **enhance efficiency by -**
 - enabling the managing and tracking of companies who generate, transport, store, treat, and dispose of hazardous wastes;
 - reducing bureaucracy, and the consumption and storage of paper;
 - making it simpler and quicker to access the information regarding to shipments, and to know what is missing;
 - enabling better tracking of trends in transboundary movements;
 - increasing the consistency of data held by authorities; and
 - reducing the administrative burden for authorities, for example with respect to the input of data.
- **help enforcement by -**
 - allowing a real time inventory of registered stakeholders across the country;
 - enabling transporters and waste disposal operators to be monitored, and ensuring that they are properly authorised;
 - enabling the tracking of the movements of hazardous wastes;
 - allowing authorities to prepare databases for hazardous waste and to propose solutions in the light of these data; and
 - helping users of the system to control their shipments and keep within their permits.

III.4 Have you carried out any studies on possible electronic approaches? If possible, please provide us with a brief summary of the findings, or a copy thereof.

In Latin America a system (SIETRE) is being developed for computerizing requests for import and export authorizations of wastes regulated by the Basel Convention. The system will standardize internal procedures of analysis and response, with the aim of optimizing and accelerating the authorization procedure.

The European Commission is currently undertaking a study¹ to assist in the adoption of an implementing act establishing the technical and organisational requirements for the practical implementation of an electronic data interchange for the submission of documents and information pursuant to Article 26(4) of Regulation (EC) No 1013/2006 on shipments of waste (the WSR). These documents and information are listed in Article 26(1), including Annex II to the WSR.

European Data Interchange for Waste Notification Systems² (EUDIN) elaborates a standardised interface for the exchange of data between European member States for electronic transposition of the requirements of the WSR. It is intended to simplify the administrative procedure to notify authorities of waste shipments within, into and out of the EU. Germany, Austria, the Netherlands and Belgium participate in EUDIN.

The Nordic TFS³ (transboundary shipments of waste) is a portal to establish a common digital process for digital applications and movement tracking forms under the WSR. The portal is already in use in Sweden. Finland is going to join this year.

In Madagascar there is a border management project undertaken by the Customs Administration, with technical support from the private sector, engaging all departments and governmental agencies responsible for specific controls on import and/or export of goods relating to online issuing different permits, licences, authorizations and certificates and the automatic transmission of these documents to the Customs Administration and other relevant entities.

III.5 What are the most important practical challenges you face with respect to the movement of waste?

The parties identified a number of challenges, some of which **could be addressed by an electronic approach**.

There are general **delays** caused by a time consuming, paper-based administrative procedure that include

- delays in receiving replies by post from a party of import or transit;
- time spent on the notification and receipt of responses from competent authorities and the signing of the document of movement by transporters, customs offices, and others involved in the transboundary movement of wastes prior receipt in the disposal facility.

Parties reported a lack of important **information**, including –

- up to date information on contacts points, and correct email addresses;
- the difficulty in finding quickly if a potential State of transit prohibits movements;
- failures to supply all the necessary information on notification and movement forms;

¹ See <http://ec.europa.eu/environment/waste/shipments/studies.htm>

² See http://www.eudin.org/ms/eudin/eudin_missionStatement/

³ See <https://www.wasteshipment.eu/tfs/htmlViewer?xsessiontag=1506704397>

- in particular, information about the contract and insurance/guarantee covering the waste;
- the absence of accurate information of the location of the waste during the movement of waste.

One party said that the level of enforcement would be improved if all information on shipments in real time was available.

Difficulties arose with respect to **process**, including:

- the lack of response of the State of import confirming receipt of the waste and on the disposal of waste;
- the absence of a uniform procedure applicable in all countries;
- a lack of communication and sharing of information between key players during the movement of waste;
- the administrative burden related to the processing of the large volumes of data in the movement documents.

States also listed **systemic challenges that could benefit from the harmonisation that may be associated with an electronic approach**, namely:

- the necessity to clarify the role and responsibilities of each player throughout the process and to dealing with overlaps;
- technological challenges caused by the transmission of non-editable electronic information from one player to the other;
- the compatibility of electronic technologies used in different parties;
- the availability of technologies in various countries;
- difficulties in change of information (for example, changing a carrier of waste) when a shipment has already been announced.

Parties also identified challenges concerning **enforcement**, including:

- illegal traffic;
- management of the entire process, from start to finish; and
- tracking transboundary movements.

Other challenges that parties mentioned might be difficult to address directly through an electronic approach.

For example, some parties identified challenges related to a **lack of equipment and/or infrastructure**, including –

- lack of equipment and devices for the detection of hazardous waste at the border;
- lack of facilities for hazardous waste treatment and disposal in an environmentally sound manner, for recycling and landfill;
- lack of the means properly to control the final recovery of waste of electric and electronic equipment;
- difficulties in verification on the spot that the waste is actually the waste that was notified;

There were also challenges related to **lack of training and expertise**, including -

- lack of expertise and lack of awareness in the environmentally sound management of hazardous wastes;

- law enforcement agents manning ports of entry and exit have not been trained on waste related cross-border crime or what constitutes waste; and
- lack of capacity to distinguish between waste and non-waste.

IV. A Basel Convention system for electronic data approaches to notification and movement

IV.1 Do you think there is a need for an initiative to provide for electronic data approaches to notification and movement, which would be available to all Parties to the Basel Convention (a Basel Convention electronic system for transboundary movements)?



Parties' responses reflected the unanimous support for an initiative and the accounts of the benefits of electronic notification that were given in Section III of the questionnaire.

There was an expectation that electronic data approaches would speed up procedures; facilitate processing of applications; help to address difficulties; increase uniformity of procedures; harmonise approaches; improve communication and sharing of information; reduce administrative burdens for authorities and stakeholders; increase traceability and transparency; enable shipments to be tracked; improve the analysis of movements; help parties to cooperate with and learn from each other; increase the reliability of information; help parties to verify information; minimise corruption; and assist reporting.

It was pointed out that developing an electronic system is a cumbersome process that takes time and resources. It would be a lot more efficient to mandate the Secretariat, with the proper support from experts, to develop this system and make it available for all parties instead of having all the parties duplicate this effort. Much time and financial resource could be saved.

It was also pointed out that although there were clear theoretical attractions in an electronic approach, countries with slow Internet connections could not make use of it.

IV.2 In your opinion, which of the listed processes should be supported by a Basel Convention electronic system for transboundary movements? Please tick the relevant box.

Contract between waste exporter and disposer

Notification of proposed movement

Response to notification of proposed movement

Issuance of movement document

Tracking/signature of movement document

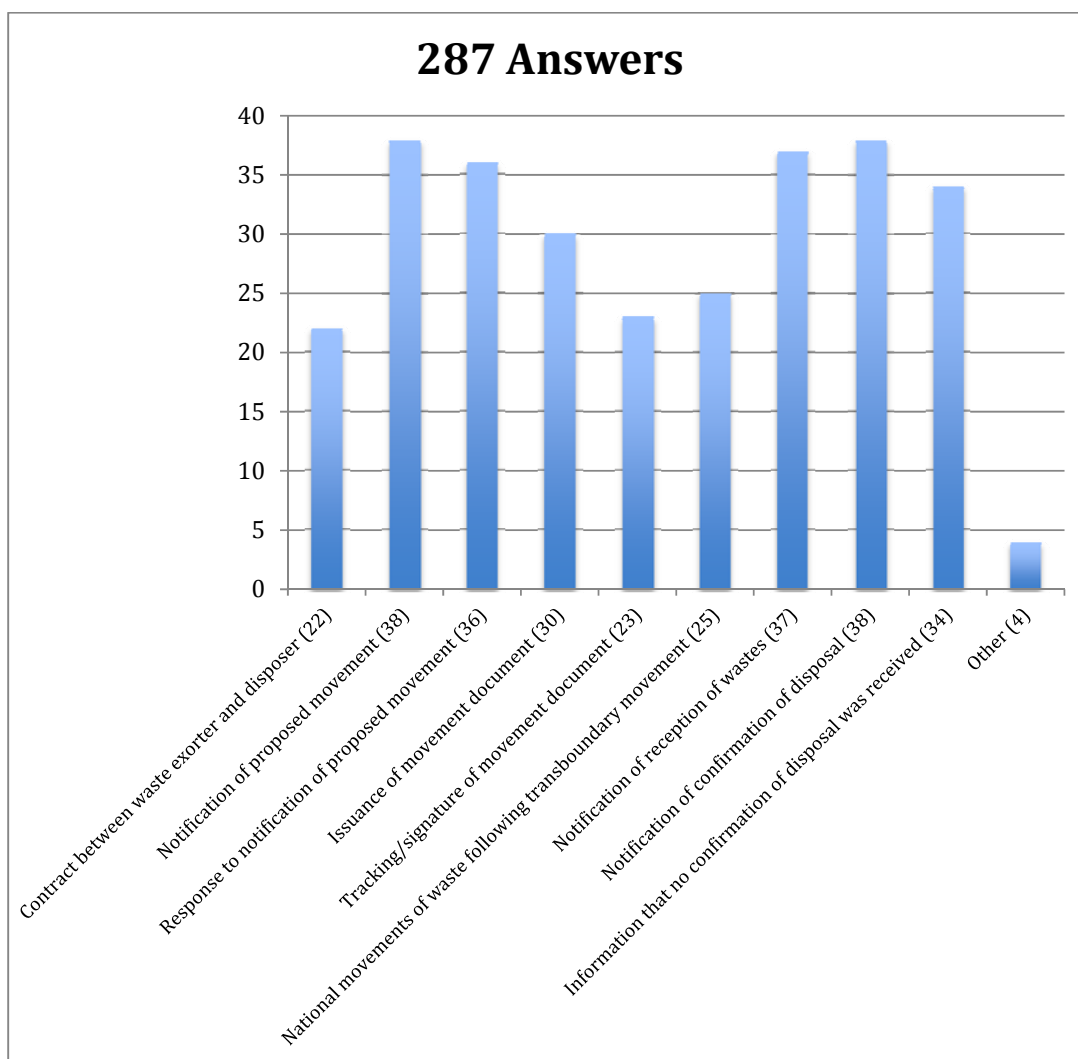
National movements of waste following transboundary movement

Notification of reception of wastes

Notification of confirmation of disposal

Information that no confirmation of disposal was received

Other (specify)



Suggestions made for other processes included: all processes relating to transboundary movements; listing exported materials; and all aspects of Regulation (EC) No 1013/2006 on shipments of waste.

More generally, the following points were made.

A global system should take account of the experiences gained in developing existing systems and should be based on existing standards, including data security and communication.

Any new system should be introduced incrementally. Some processes should be kept inactive until the system evolves.

Existing pilot studies should also be taken into account including the Business Requirement Specification UN/CEFACT 2008 of the Basel Convention Secretariat.

An electronic system should be developed by the Basel Convention and made available to all parties. Parties could use the proposed system and implement it with changes to reflect their national circumstances

if needed. At all times, its administration would remain under the responsibility of national governments as required by the provisions of the Convention.

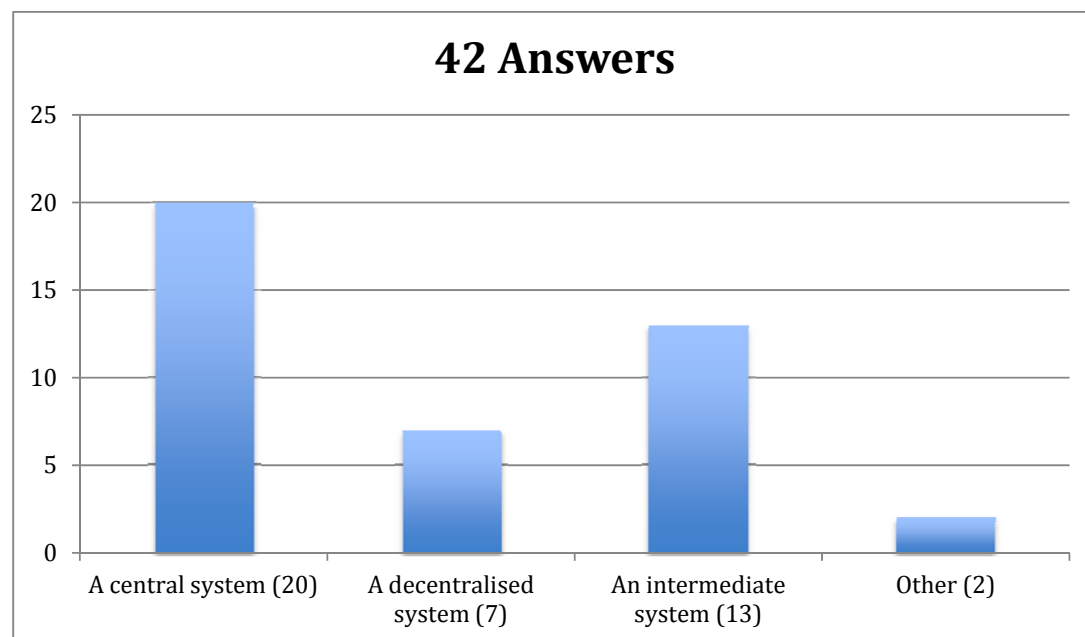
IV.3 Which, if any, of the alternatives listed below for a Basel Convention electronic system for transboundary movements would be your preference? Please, tick the relevant box and explain your answer.

A central system managed by the Secretariat and accessible by all Parties and other stakeholders

A decentralised system, where each Party would have its own system, which could communicate with other systems using standardized messages

An intermediate system, with some Parties having their own systems and others not, with the Secretariat playing the role of the centralized repository of the notifications.

Other (please specify)



The following advantages of a **central system** were identified:

- standardization of procedures and avoiding incompatibilities in national systems;
- promotion of uniformity of interpretation and practice;
- empowering the Secretariat to monitor and manage movements;
- helping parties that lack capacity to develop their own system;
- helping parties to get access to information and to use the experiences of other parties;
- helping parties to deal with emergencies; and
- supporting swift communication.

There was support for a centralized system integrated with a decentralized system, allowing parties to expand their decentralized systems to suit their specific particular needs and requirements.

There was also opposition to a central system: it was argued that a central system could transfer accountability from national authorities to the Secretariat, which would not be desirable from either a legal or policy perspective, and which might draw the Secretariat into legal cases where there is illegal traffic or when movements do not proceed as intended. It was emphasised that some information connected with transboundary movements needed to be kept private and confidential, and that would require considerable resources if there was a centralised system.

It was maintained that there is already a **decentralized system** under the Convention, and that it was important that the parties implement their obligations and exercise their rights themselves. There is value in having standardized messages for all competent authorities to bring consistency within the procedures and enhance their clarity and interpretation.

There was also some support for an **intermediate** system, allowing the parties to download information, and develop applications or additional interfaces in accordance with its procedures and national regulations. It was considered that this would accommodate the many different stages of economic, social and technical development and could be supplemented by the Secretariat, assisting less developed parties.

It was argued that an intermediate system would allow parties either to keep their own systems or to join the Secretariat's central repository. It would be crucial to explore the synergies between work already being carried out and the possible development of a Basel Convention system.

Arguments against this approach were similar to those against a centralised system: the undermining of parties' accountability and the possibility that the Secretariat might be drawn into legal cases; and the threat to confidentiality.

IV.4 If you would favour a Basel Convention electronic system for transboundary movements, what would you expect the main benefits to be?

A number of expected benefits were listed.

Parties considered there would be improvements in **efficiency**, including -

- speeding up of shipments;
- promptness in processing documents;
- a uniform system;
- reliable and quicker consents for transboundary movements;
- an environmentally sound, paper-free system;
- the reduction of bureaucracy;
- synergies with national systems;
- more reliability;
- enabling Parties that do not currently have an electronic system to enhance their capability;
- generally improved capability; and
- avoiding different processes and systems that are incompatible with one another.

Improvements in **information** were listed, including -

- enhanced access to information, accuracy, transparency and security;
- advance notice of risk;
- safety of information;
- standardized reporting and data collection; and
- easier verification.

Expected improvements in **enforcement** included:

- convenient, rigorous and efficient tracking and monitoring of the movements of hazardous wastes from the country of origin to the country of recycling/disposal;
- better implementation of the Convention and improved control of transboundary movements;
- having one entity monitoring the Basel Convention electronic system and unification of the whole process;
- better national annual reports under the Convention;
- a reduction of risk by avoiding delay in the processing of movements of waste, leading to a reduction in storage time;
- more waste will be disposed in an environmentally sound manner; and
- less illegal traffic.

IV.5 If you would not favour a Basel Convention electronic system for transboundary movements, what would you expect the main challenges to be?

Amongst the challenges identified were the following:

- defining the scope of the solution itself;
- tackling the complexity of the rules concerned;
- ensuring compliance by a very large number of stakeholders;
- dealing with national differences in implementing and interpreting the convention;
- overcoming language barriers;
- loss of information;
- verification of information;
- possible failure of the system;
- ensuring that the system is available and can be implemented in all countries;
- significant differences in the legislation of parties;
- different national rules on confidentiality of data; and
- ensuring the effectiveness of the technology platforms used by authorities.

V. Other relevant information

V.1 Please add any additional information or comments pertaining to an electronic data approach that is not included in answers to the above questions and could improve the implementation of the Basel Convention control procedure.

A precondition of an electronic system would be ensuring parties uses the same formats for notifications and movements.

An electronic system might require amendment of national laws where this is necessary to ensure that electronic documents have legal status.

It would be best to concentrate, in the first instance, on getting the basics right rather than on nice-to-have add ons.

It would be helpful to consider whether electronic documents could be used as evidence in prosecutions.

An electronic system would require capacity building with respect to focal points, custom officials and law enforcement agencies. Limited access to the internet might be a problem.

An electronic system should be integrated with the Automated System for Customs Data⁴ (ASYCUDA).

A second phase of the electronic approach could be the development of a bank of legislation in each country, which is difficult to locate at the moment.

⁴ ASYCUDA is a computerised customs management system that covers most foreign trade procedures. The system handles manifests and customs declarations, accounting procedures, transit and suspense procedures.

Annex V: Summary of information collected from stakeholders through the questionnaire

I. Notification document: notification and consent

This part of the questionnaire relates to the first stage of the Convention's prior informed consent procedure, which begins when the exporter/generator of the wastes informs the Competent Authority of the State of export of a proposed shipment of hazardous or other wastes, and ends when the Competent Authority of the State of export issues a movement document and authorizes the shipment to start.

I.1 The notification procedure includes a number of procedural stages. Which, if any, of these stages should involve an electronic approach? Please tick each box that is relevant.

Stage 1: The exporter/generator/State of export of the wastes informs the Competent Authority of the State of export of a proposed transboundary movement of hazardous or other wastes.

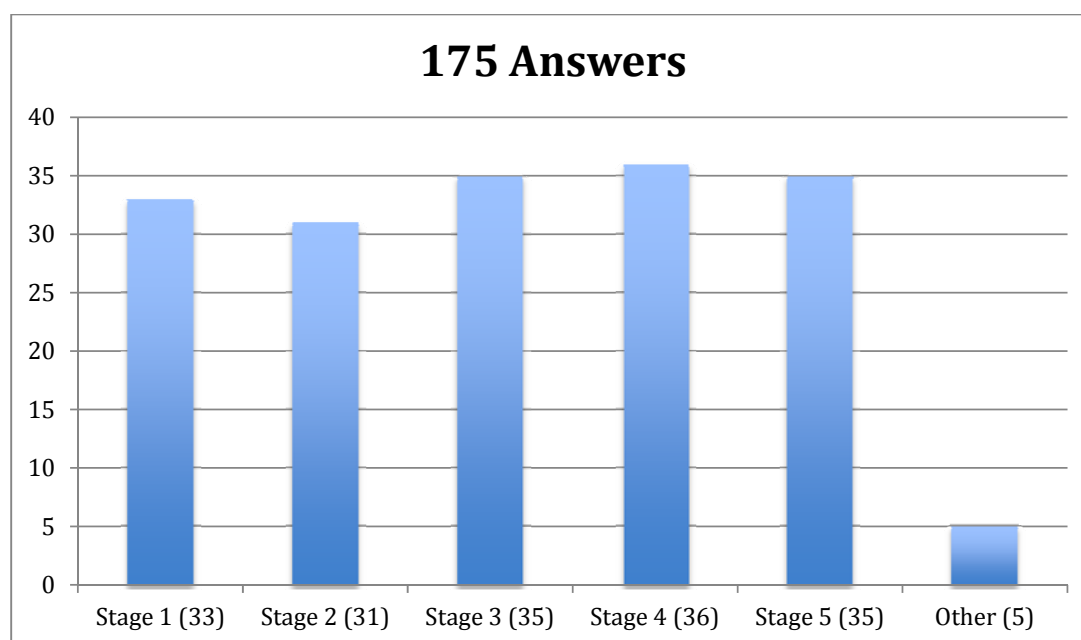
Stage 2: The Competent Authority of the State of export has no objection to the export and informs the exporter/generator/State of export thereof.

Stage 3: The notification document is completed and transmitted to the Competent Authority of the States concerned (State of import/transit).

Stage 4: On receipt of the notification document, the Competent Authority of the State of import/ transit provide its written consent (with or without conditions) or denial (after asking for further clarification, if necessary).

Stage 5: Once the relevant Competent Authorities have established that all the requirements of the Convention have been met and have agreed to the movement, the Competent Authority of the State of export can proceed with the issuance of the movement document and authorize the shipment to start.

Other stages (please specify)



A clear majority of stakeholders considered that there should be electronic notification at each stage. This resonates with stakeholders' support for an initiative to provide for electronic data approaches to notification and movement (see below).

When describing other stages that should be subject to an electronic approach, the following points were made.

- The exporter/generator should be able to track the application.
- The procedural stages should be in line with those already in place in other parties.
- There should be provision for collecting the fees of authorities and for the financial guarantee.
- There should be an electronic workflow that engages stakeholders – the waste Generator and waste disposal companies – who may give further descriptions of the waste and indicate their willingness to accept it.

.2 If you have ticked any of the above boxes, please explain why you consider an electronic approach would be helpful.

Stakeholders considered there would be many advantages in an electronic approach. The following points were made.

- **Efficiency** would be improved because of speed and ease of communication - in particular through immediate delivery of documents; quicker and easier decision-making by authorities; the reduction of costs, for example courier and processing costs; and the consequential reduction of administrative burdens.
- An electronic approach could be the foundation for a **more effective process** that would enable shipments to be made much more quickly, make it easier to keep in contact with authorities; enable the delivery of documents to right people; facilitate record keeping by Parties and stakeholders; allow for easier controlling and checking and checking of shipments and the swifter resolution of problems; provide proof that documents have arrived and avoid losing documentation; standardize communication; and improve enforcement and tracking.
- An electronic approach would be a **benefit to the environment**, reducing the consumption of paper, particularly by avoiding copying.
- Some stakeholders argued that an electronic approach should include the following **features**: automatic reminders, safeguards against fraud. There was some scepticism about the value of a hybrid paper/electronic approach and a decentralized approach.
- Finally there were **warnings** that there were other causes of delays that would not be addressed by an electronic approach: different interpretations of the applicable international law; and different requirements in national legislation.

II. Movement document: Transboundary movement and confirmation of disposal

This part of the questionnaire relates to the second stage of the Convention's prior informed consent procedure, which begins when the transboundary movement has been initiated and lasts until the wastes have been received by the disposer and the generator and the country of export receive confirmation that the wastes have been disposed of as planned and in an environmentally sound manner.

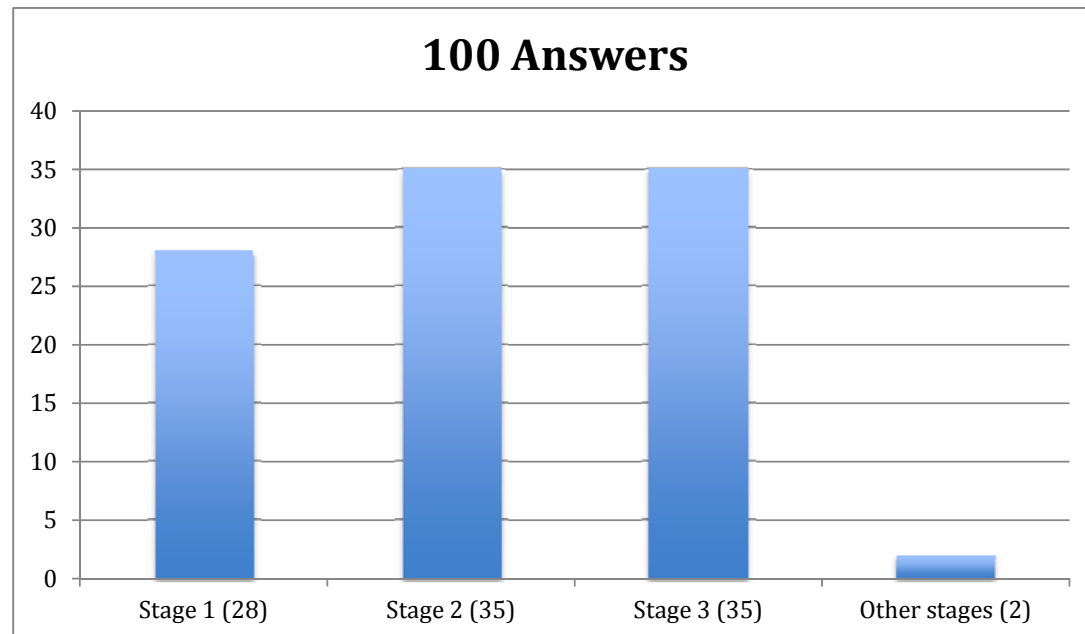
The movement and disposal procedures include a number of stages. Which, if any, of these stages should involve an electronic approach? Please tick each box that is relevant.

Stage 1: The movement document, which contains important information, accompanies the wastes and is signed by each person taking charge of it.

Stage 2: The exporter and Competent Authority of the State of export receive confirmation that the wastes moved across borders have been received and disposed of by the disposer as planned and in an environmentally sound manner.

Stage 3: The Competent Authority of the State of export that has not received the confirmation that disposal has been completed informs the Competent Authority of the State of import accordingly.

Other stages (please specify)



It was pointed out that it is difficult to have an electronic approach because key players in a shipment by sea will not have electronic access when it is needed. Nevertheless an electronic approach would be highly recommended in order to ensure access to shipments.

One stakeholder said that during 15 years work in the field, it had never received a movement document signed by each intermediate; normally one or more of the carriers were missing.

It was emphasised that the forms should be track-able. One stakeholder requested an Excel list that automatically filled in the movement document number, the date of movement and the net weight of loading.

It was suggested that an electronic approach should cover all stages of the procedure; a mixture of an electronic approach and paper documentation would result in an additional workload and potential confusion.

III. Current experience of electronic approaches

*III.1 Have you already used electronic approaches to any of the following waste movement processes?
Please tick the ones that apply.*

Contract between waste exporter and disposer

Notification of proposed movement

Response to notification of proposed movement

Issuance of movement document

Tracking/signature of movement document

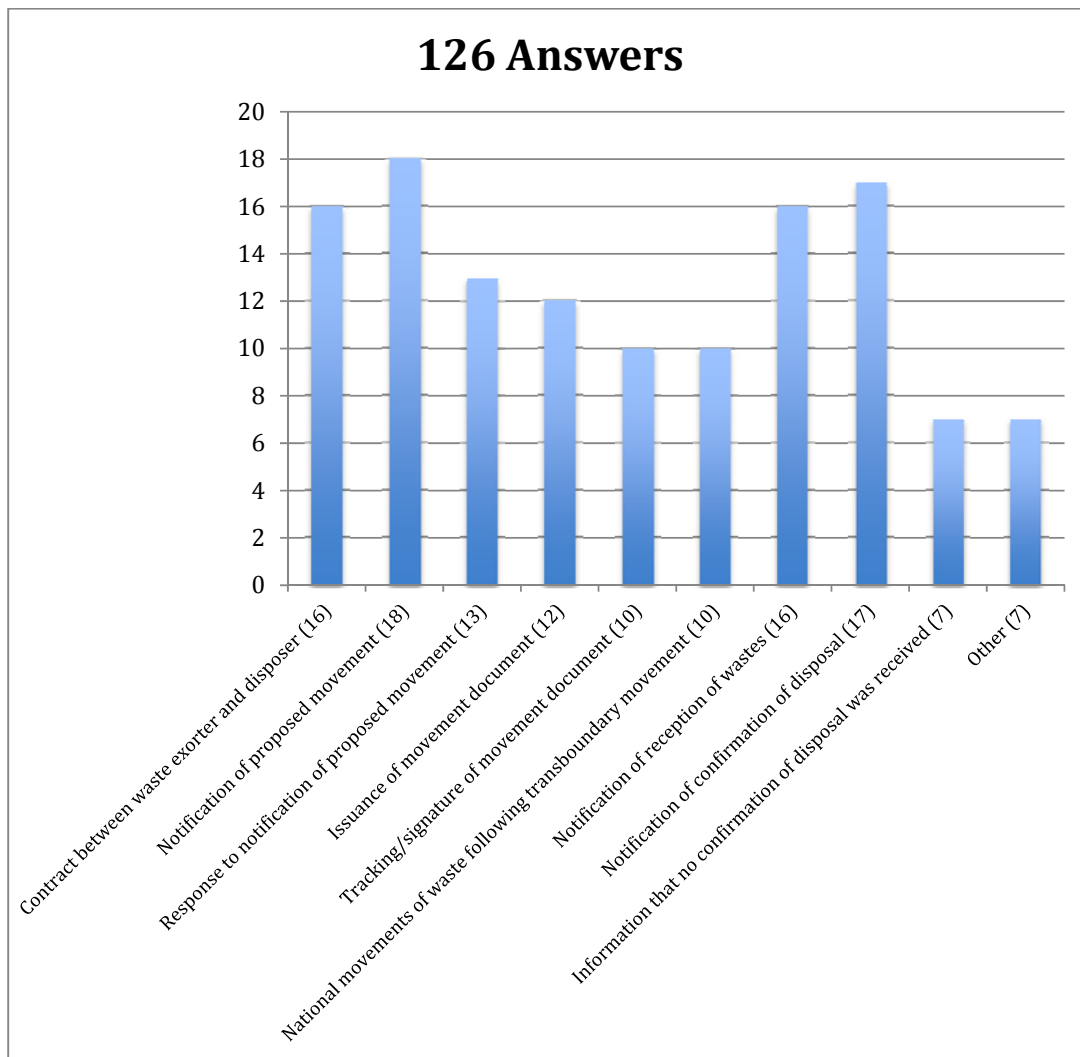
National movements of waste following transboundary movement

Notification of reception of wastes

Notification of confirmation of disposal

Information that no confirmation of disposal was received

Other (specify)



A number of other processes were listed, including the following-

- sending notification by fax or by mail;
- the German ZEDAL-System;
- the "SITT" system of the Italian competent authority in the Lombardy Region;
- the German "iwave" system of Abfallmanagement;
- the Digital Notification Analyzer (From IL&T);
- Cemmac a.s. sends a scan of notifications to producers of waste and relevant authorities; and
- confirmation of disposal by Ecologist.

III.2 If you already have an electronic approach, name the most significant benefits that approach brings.

A number of benefits of an electronic approach were listed, including the following

- general speed and continuity;
- greater transparency;

- saving time and paper; not necessary to have access to a printer, scanner and a fax, no need to send hard copies by post;
- elimination of bureaucracy and administrative work;
- speedy completion of documents, and ensuring that main points are not omitted;
- knowledge of the time of receipt of the information;
- avoiding unreadable fax documents;
- informing authorities easily of a change in the notification or movement documents, including new carriers where one is needed;
- better tracking;
- standardization;
- better filing and retrieval of documents;
- keeping all stakeholders on the same platform;
- better statistical analysis for stakeholders and authorities; and
- confirmation that the waste has been disposed of in an environmentally sound manner.

It was, however, pointed out that the movement document will still need to be a hard copy that goes with the shipment, unless a system can be devised that may be used by a mobile phone. It was added that the current alternative is sending movement documents by fax; the speed of transmission is the same, so there is no significant benefit.

III.3 Please describe any best practices you have encountered with respect to electronic approaches to transboundary movements of hazardous and other wastes.

Stakeholders listed a number of best practices.

The ZEDAL system was praised; it is used for movements within Germany and will be used for transboundary shipments; there have already been pilot tests involving the Netherlands, France and Luxembourg.

One stakeholder informs all competent authorities involved in a movement by an email (with a digital signature if necessary); this means there is timely notification and no risk of losing the documents. Another option would be to have a single platform accessible to all and through which notifications could be submitted. But there would have to be the option of using emails if the platform did not work.

An Excel document, that can be updated, should be used to follow loading weights, guarantees etc.

Electronic correspondence between the exporter and disposer of wastes makes it possible to retrieve all necessary documents, to maintain records and to provide evidence and information to competent authorities if necessary.

The system of Sims Lifecycle Services B.V. is ISO accredited and can be used to GPS track and document transboundary movements.

One stakeholder reported that all their procedures are electronic, and they do not send any paper documents at all.

III.4 If you already have used an electronic approach, name the most significant challenges you face when implementing that approach.

One stakeholder reported that they faced a complex and challenging situation, which doubled their administrative burdens, because only one authority in their country had an electronic system and others needed faxes; it is difficult to communicate and only one authority has an electronic system. It feared that if there is not one centralised Basel Convention system the administrative burden will be enormous.

Some authorities do not accept electronic notifications or documents, which means duplication of work.

Attachments to electronic documents can be large (for example information on the permits of a waste disposal site) and the system should be able to support that.

It can be a challenging to introduce an electronic system into the existing corporate IT-architecture.

It can be complicated to manage electronic signature.

Rapid evolution in technology brings the responsibility to safely store and maintain electronic data received from relevant outlets and authorities. This may require training of the staff involved.

Naturally it will be difficult if a system is down.

Communication between different Software Solutions should be clearly regulated by a well-defined protocol/interface.

Some desirable qualities for an electronic system were listed: the system should allow a third party to prepare notification on behalf of the notifier; it should be possible to change persons responsible for signatures; and the system should send you a receipt when the application has been submitted.

III.5 Have you carried out any studies on possible electronic approaches? If possible, please provide us with a brief summary of the findings, or a copy thereof.

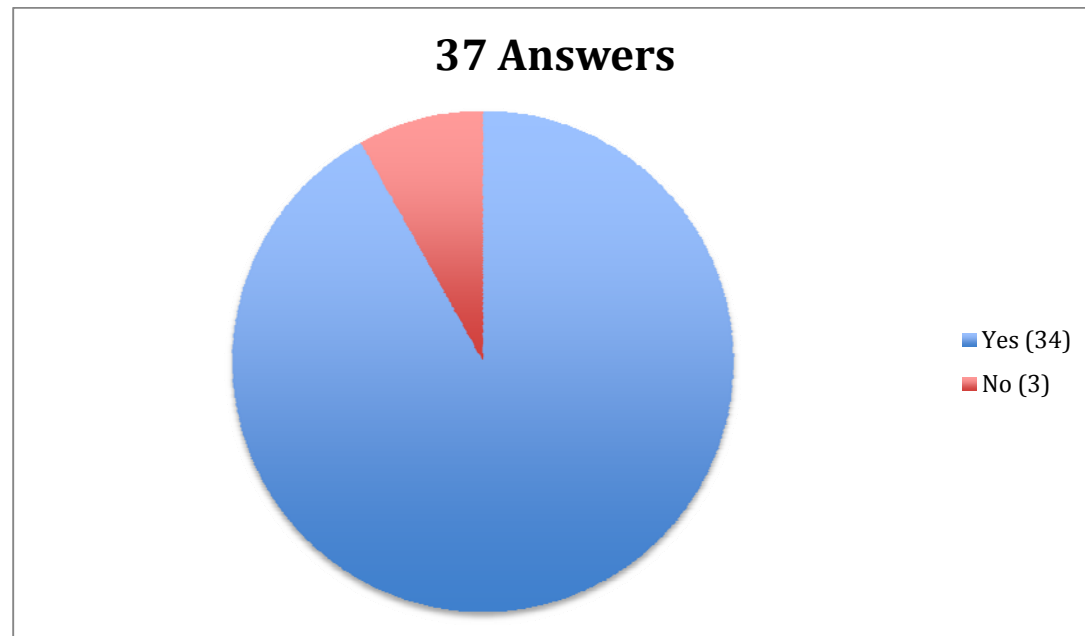
There were no reports of studies.

One stakeholder pointed out that it would not be helpful for each country to have its own platforms.

IV. A Basel Convention system for electronic data approaches to notification and movement

IV. A Basel Convention system for electronic data approaches to notification and movement

IV.1 Do you think there is a need for an initiative to provide for electronic data approaches to notification and movement, which would be available to all Parties to the Basel Convention (a Basel Convention electronic system for transboundary movements)?



A striking majority of stakeholders considered there should be an initiative for a Basel Convention system.

Those who supported an initiative believed it would enhance **efficiency**: an electronic approach would -

- make things quicker and easier for everyone;
- avoid the current protracted and draining process, which can take 60-90 days to complete;
- deal effectively with all the stakeholders and authorities involved in a transboundary movement, which can be as many as ten;
- ensure that all the necessary information is delivered; and
- save time transmitting and processing paper, and avoid postal delays

It was considered that an electronic approach could make **procedural** improvements; it would -

- offer a procedure and a world-wide solution;
- align everyone concerned with a particular movement;
- standardise procedure;
- provide new applicants with support;
- avoid administrative burdens particularly if there was one standardised procedure;
- increase transparency; and
- allow all parties to be treated equally.

Enforcement would be enhanced by -

- improved monitoring; and
- the prevention of illegal traffic.

An electronic system could improve **communication** between everyone concerned with a transboundary movement; it would also-

- enhance clarity and avoid ambiguity;
- assist reporting; and
- help parties to share information.

But it was stressed that an electronic approach would need to be **flexible**, because-

- it is necessary to allow a notifier to delegate the completion of the application to a third party; and
- every application is different, and system must accommodate this.

Those stakeholders who would not support a Basel initiative gave the following reasons-

- They had little exposure to notification procedures outside the European Union, and within the EU the WSR does not allow for electronic forms of communication.
- A Basel initiative would only work if there was one platform. A number of different platforms would complicate matters.
- The EU is working up one system and as long as that can communicate with other Basel parties it would be unnecessary to have another system.

IV.2 In your opinion, which of the listed processes should be supported by a Basel Convention electronic system for transboundary movements? Please tick the relevant box.

Contract between waste exporter and disposer

Notification of proposed movement

Response to notification of proposed movement

Issuance of movement document

Tracking/signature of movement document

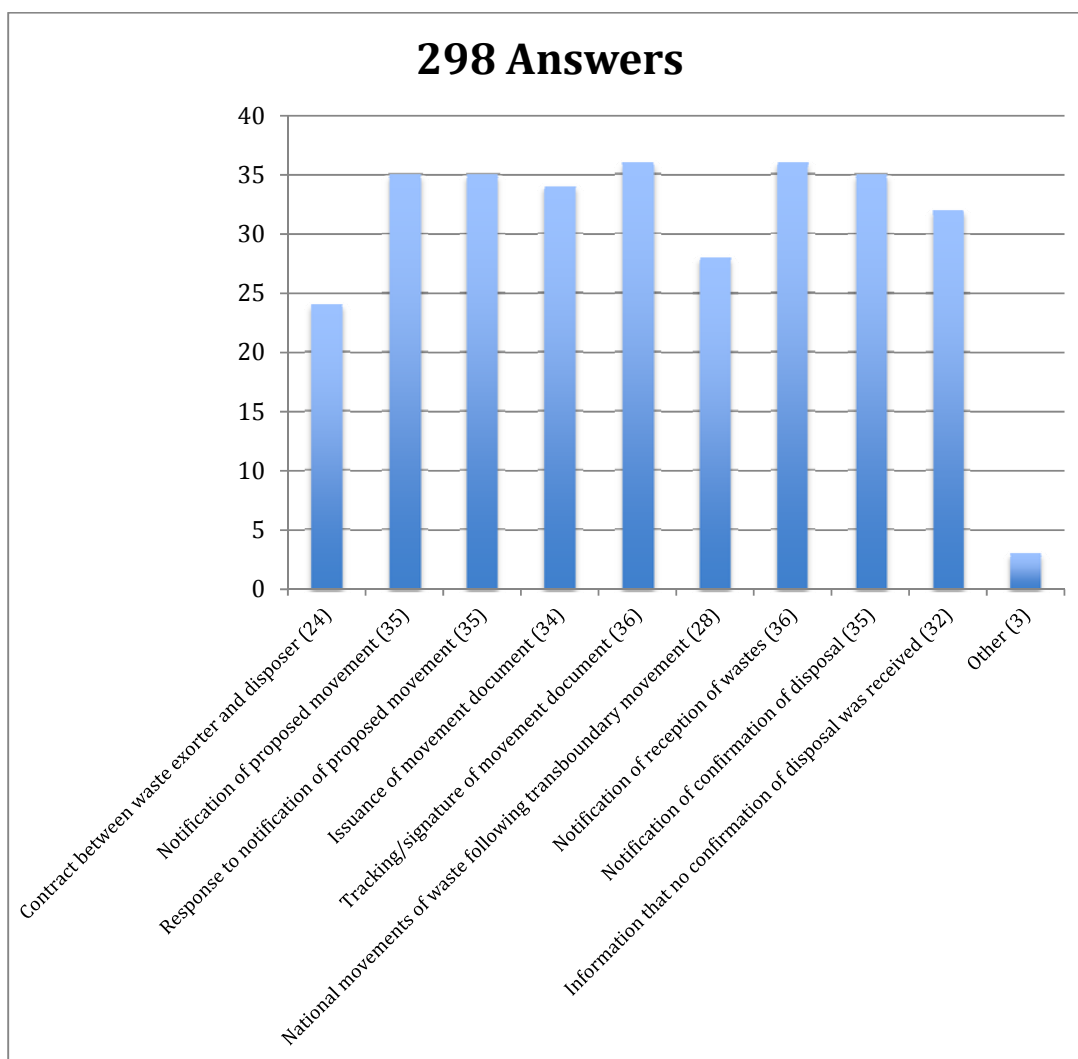
National movements of waste following transboundary movement

Notification of reception of wastes

Notification of confirmation of disposal

Information that no confirmation of disposal was received

Other (specify)



The following were suggested as other processes that might be covered:

- tracking of transportation; and
- the upload of underlying data (e.g. description of production and recovery process, transport routing and companies, analysis of the material and yield after recovery) provided that confidentiality could be guaranteed.

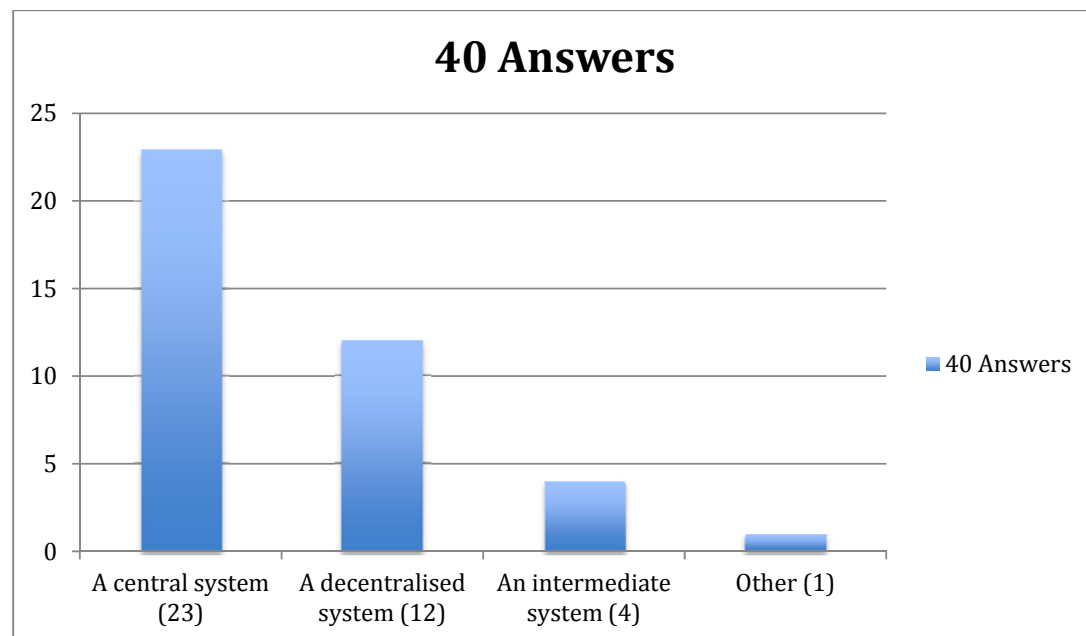
IV.3 Which, if any, of the alternatives listed below for a Basel Convention electronic system for transboundary movements would be your preference? Please, tick the relevant box and explain your answer.

A central system managed by the Secretariat and accessible by all Parties and other stakeholders

A decentralised system, where each Party would have its own system, which could communicate with other systems using standardized messages

An intermediate system, with some Parties having their own systems and others not, with the Secretariat playing the role of the centralized repository of the notifications.

Other (please specify)



Some argued that only **a centralised uniform system applicable to all parties** would have a chance of success. A number of advantages for such an approach were listed:

- The Secretariat would have control and can liaise between countries.
- There would be a coherent set of rules and guidelines and a system that is similar to operate for all parties; and authorities would be discouraged from imposing unnecessary requirements. The same documentation could be used.
- A centralised system would harmonise requirements and be simpler and easier to operate.
- A uniform system would be more efficient and would enable Parties and stakeholders to communicate effectively.
- Failure to centralise would mean time and resources would be required to link different systems. There would be unnecessary complications if there were separate systems, and stakeholders would have to train their staff to handle the different systems.
- One system accessible to all parties of the supply chain would make the hazardous waste world safer.

One stakeholder observed that a central system should be designed to interface with other existing electronic approaches to manage the transition.

Another stakeholder suggested that a central system would not be flexible enough.

Those who supported a **decentralised** system made the following points:

- It would not be necessary to impose one system; it is much better to specify the interface and let the market decide which system to use.
- A decentralised system would be the most flexible solution, as it would allow Parties some degree of flexibility to define their own hazardous waste and would allow for exchange of information for monitoring purposes.

- It would give the user control whilst facilitating communication between all the parties involved.
- A decentralised system with well-defined protocols could enable countries with more waste movements to introduce a system without waiting for slower States.

There was support for an **intermediate** system because it would allow authorities to have their own systems but they would also work under the aegis of the Secretariat.

IV.4 If you would favour a Basel Convention electronic system for transboundary movements, what would you expect the main benefits to be?

It was considered that a number of benefits would improve **efficiency**:

- It was considered that an electronic approach would enable procedures to be completed more quickly and transparently.
- A harmonised procedure would be easier to manage and more transparent.
- Forms would arrive instantly, and could be reviewed instantly. Paperwork would not be lost.
- There would be a reduction of costs.
- Notifications would be easier to handle.
- The use of paper would stop or at least diminish.

The **process** would be improved because

- it would be simple to administer and forms would be simple to complete and easy to correct or change;
- there would be quick, standardised and accurate communication;
- all documentation would be in one place and there could be electronic filing;
- there would be greater transparency and it would be easier to follow up documents and get access to them;
- there would be security and traceability of data;
- there could be simple and transparent reporting;
- it may be easy quickly to liquidate any monetary bond; and
- there would be a worldwide tool that would enhance the circular economy.

Enforcement would be improved by

- enhanced control;
- monitoring the movement of waste to the final destination;
- monitoring and reporting could be done by the Basel Convention Secretariat; and more generally
- there would be enhanced enforcement by competent authorities, customs and police.

IV.5 If you would not favour a Basel Convention electronic system for transboundary movements, what would you expect the main challenges to be?

The following main challenges were identified.

It may be challenging to get international agreement for a system.

Security may be a challenge; the solution could be that the most sensitive parts of the procedure could still be done "manually".

Where companies do not often use transboundary shipments, the burdens of an electronic approach might outweigh the benefits.

It can be burdensome to use an electronic signature system.

V. Other relevant information

V.1 What shipments/operations concern you most? Please tick the relevant box and where possible, please provide the number of the yearly shipments/operations associated with a transboundary movement.

Waste shipments within your region

Waste shipments across regions

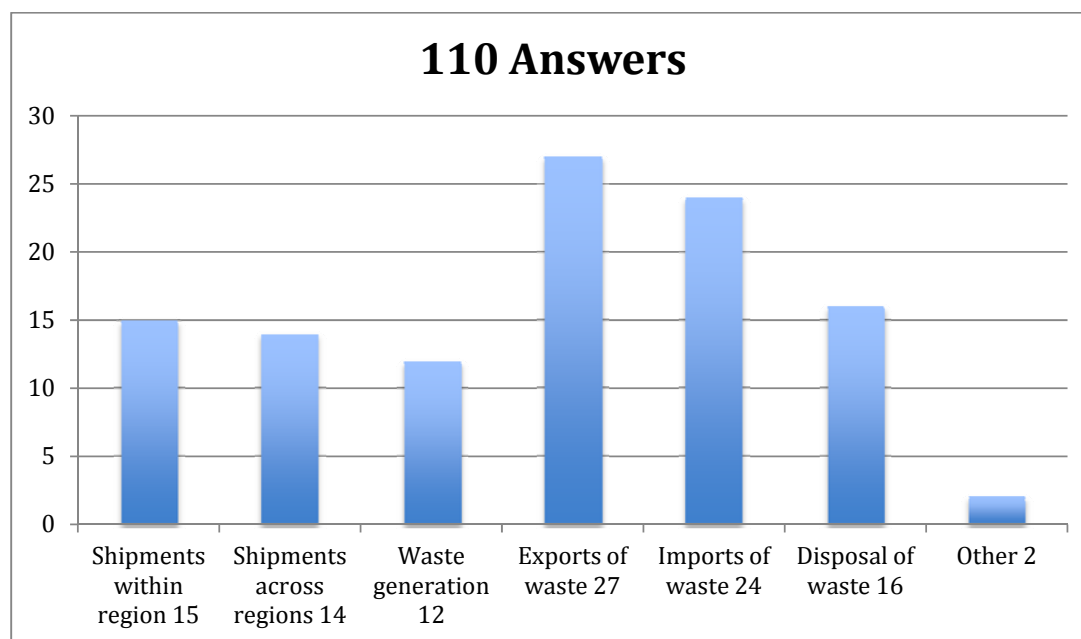
Waste generation

Exports of waste

Imports of waste

Disposal of waste

Other



V.2 Please add any additional information or comments pertaining to an electronic data approach that is not included in answers to the above questions and could improve the implementation of the Basel Convention control procedure.

Other information or comments included the following.

The notification system should be changed. It imposes burdens and creates storage problems.

The electronic data approach should be in line with similar programs of other countries or regions such as the European Union.

Recycling and disposal plants should be certified so that a notifier knows the plants have been approved.

The size limits on email-systems cause problems when sending Basel Convention-related documents.

The legal status of electronic documents needs clarification; so do the requirements for issuing electronic signatures.