

Magnetic Tape Alert Project report

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1. Introduction

1.1 What is the Magnetic Tape Alert Project?

Today's knowledge of the linguistic and cultural diversity of humanity is widely based on magnetic tape recordings produced over the past 60 years. Magnetic audio and video tape formats are now obsolete. Spare parts supply and service is fading, replay equipment in operable condition is disappearing rapidly, and routine transfer of magnetic tape documents is estimated to end around 2025. The only way to preserve these sounds and images in the long term, and to keep them accessible for future generations, is their digitisation and transfer to safe digital repositories. While many professional memory institutions around the world have already secured their audiovisual holdings, or have planned to do so in time, a great number of audio and video recordings are still in their original state, kept in small academic or cultural institutions, or in private hands.

With the Magnetic Tape Alert Project (MTAP), the Information for All Programme (IFAP) of UNESCO in cooperation with the International Association of Sound and Audiovisual Archives (IASA) has attempted to alert stakeholders around the world to the imminent threat of losing access to their audiovisual documents. The project has sought the assistance of institutions, associations and NGOs engaged in the study of contents typically recorded on magnetic tapes to help raise awareness of these dangers. The project aims to produce a realistic view of the problem and determine to what extent rescue measures would have to be organised and financed to prevent the loss of irreplaceable documents.

The main tool of the project is a questionnaire asking for the qualitative and quantitative dimension of audiovisual collections, their state of preservation, the collection managers' need for assistance, and also their readiness to assist other collection managers in their endeavours to safeguard their holdings in time. All types of audiovisual content are of interest to this project: music, endangered languages, folklore, rituals, dance, oral history, speeches, ceremonies, documentaries, and television and radio broadcasts.

The information obtained through the questionnaire will serve as a basis for the planning of adequate solutions for the safeguarding of irreplaceable original documents in the long-term. Information gathered will be kept on the IASA website in the form of this publicly available report and the survey data.

1.2 Who are UNESCO, IFAP and IASA?

The International Association of Sound and Audiovisual Archives (IASA) is a professional association concerned with the care, access and long-term preservation of the world's sound and moving image heritage. Through its active worldwide membership and training initiatives, IASA supports and advocates the development of best professional standards and practice amongst organisations and individuals which share these purposes.

The Information for All Programme (IFAP) is an intergovernmental programme of UNESCO that supports Member States in formulating information policies aimed at building inclusive and sustainable Knowledge Societies. The Programme focuses on information policymaking at the international, regional and national levels. It shares experience and lessons learned from high-level events, studies and capacity building initiatives that promote digital inclusion based on sound data relevant to the SDGs. As an Intergovernmental Programme, IFAP works mainly with Governments of Member States, however it also has bilateral intergovernmental partnerships to address development issues. IFAP also recognizes the importance of a multi-stakeholder collaborative environment and works closely with civil society as well as the private sector.

IASA has collaborated with IFAP's Working Group on Information Preservation for this project, one of the six priority areas in which IFAP concentrates its efforts.

Information Preservation is predominantly executed by strengthening the underlying principles of the Memory of the World Programme, beyond its registers, which serve as catalysts to alert decision makers and the public at large.

Universal access to information is a prerequisite for building knowledge societies. Throughout history, libraries and archives have been the guardians of the documentary heritage of humankind.

But in a world increasingly being shaped by digital technologies, the traditional guardian institutions (libraries, archives and museums) are challenged to keep pace with the rapid growth in information.

They also face a new challenge: as technology advances the stability and lifespan of documents is considerably decreasing. If nothing is done, many important documents in electronic format will not survive or will become completely inaccessible within a very short time. The result will be a permanent loss to the collective memory of humankind. This challenge needs to be tackled urgently and the costs of preserving digital information should not be underestimated – these far exceed the preservation costs experienced to date with five millennia of traditional documents.

Digital preservation also contributes to at least two other IFAP priorities – information for development and information accessibility. Digital technologies open up access to information and knowledge in democratic dimensions that have never been experienced before.

<https://en.unesco.org/programme/ifap>

A specific feature of the MTAP project is the reciprocity of the acting partners. IASA maintains close contact with its members, but has little knowledge of non-member collections attached to (paper) archives and libraries, local museums, or research institutions that are often part of universities or cultural agencies. Contact with those stakeholders can, however, be established through the infrastructure of UNESCO, and its National Commissions and field offices organised as a top-down process between UNESCO and governmental authorities of member states. This relationship likewise informs national administrations of the imminent threat with the intention to trigger an alert that will keep a watching eye on the problem and its possible solution on a national level.

A central actor on the part of IASA is the Sound and Vision department of the British Library. Having ample experience in identifying small and hidden collections through their ongoing UK Save our Sounds programme, Sound and Vision aims to complement UNESCO and IASA by establishing a bottom-up process by connecting with international, regional and national NGOs that focus on content in audiovisual collections such as endangered languages, music, folklore, dance, and oral history.

1.3 Intentions of the survey and the problems it aims to address

The primary aim of the Magnetic Tape Alert Project is to raise awareness of the imminent threat we face of losing access to analogue and digital audiovisual documents that are held on magnetic tape in private, public and national collections around the world. This project not only alerts stakeholders and decision makers to the pending threat, but also intends to provide a coarse overview of the order of magnitude of magnetic tape documents and their state of preservation. This data provides a basis for the realistic planning of administrative, logistic and financial measures to safeguard important endangered collections.

Multiple warnings of these threats have been made by professional bodies since the 1990s and manifested in a number of surveys and reports (some of which will be briefly surveyed in the following section). In 2015, the year 2025 was identified by the National Film and Sound

Archive of Australia (promoted as [Deadline 2025: Collections at Risk](#)) as a threshold date by which time a number of factors will coalesce to make the digitisation of magnetic media increasingly difficult and prohibitively expensive: analogue video and audiotape, as well as early digital tape formats, will be effectively inaccessible due to the practical inability to maintain playback equipment, the gradual loss of experienced analogue-to-digital-transfer engineers, and the general degradation of the carriers themselves. All of these points need to be effectively managed in order to safeguard as many collections as possible in a decreasing window of time.

In light of these points, the MTAP project has four objectives:

1. To raise a general awareness of the immediate risks faced by audiovisual material stored on magnetic tape.
2. To encourage individuals and organisations to respond to the survey, the results of which will help us ascertain a better picture of the distribution, type, quantity, and state of digitisation of collections throughout the world.
3. To collect specific technical and contextual information about these collections from their owners: their ability to manage these collections, their level of technical expertise, their capacity to train and assist others, and what plans they have in place to preserve the carriers and their content.
4. To provide access to the resulting database of responses, as a means to identify and connect similar institutions for whom magnetic tape collections pose a problem (in the case of those who wished to be publicly identified).

We explicitly asked for unique recordings in the fields of oral/visual history, language/dialect, folk/traditional music, dances, rituals, cultural, historical and political documentation, popular music, natural sounds, and television and radio content. We have attempted to discover collections that are held beyond the range of contacts who typically engage with IASA, with a particular focus on privately-held collections and those held by small associations and institutions. The information gathered through the survey will help inform long-term plans to safeguard collections like these, which are at a particularly high risk due to their relative invisibility and isolation.

Equally, extrapolating data that is *absent* from the survey results is also a valuable exercise. Through the survey, IASA and UNESCO hope to identify hitherto poorly represented collection types and regions throughout the world in which we have little or no reach. Using these results, we can begin to better plan the means by which we can connect to these

stakeholders. Key to this problem is identifying national institutions, NGOs and individuals who may be able to act as access points to collections in regions throughout the world that are not readily accessible to us. Identifying existing latent networks, and strengthening existing ones by incorporating them into larger ones, will build a more comprehensive communication network between interested parties that will be of benefit to all.

An important caveat to note is that the MTAP survey results should not be understood as a list of significant institutions or collections in each country. Rather, the results should be read as representative of the institutions and individuals who are readily accessible to the network of contacts that IASA and UNESCO IFAP have built up over their respective years of engagement with these communities. Furthermore, the overwhelming majority of respondents are, necessarily, in a position to answer the specifics of the survey. In other words, before responding to MTAP they had already undertaken a preliminary survey of their holdings that has enabled the identification of formats and their quantities within their collections. Through the MTAP survey we were made aware of a number of significant collections (in scale and content) that were not reported to us due to this first stage of preservation not having been completed.

The ambitious global scope of MTAP has resulted in a number of findings that will prove invaluable in the safeguarding of magnetic tape collections, particularly for those stakeholders in vulnerable positions that have comparatively little access to equipment, expertise and funding.

2. Methodology

2.1 Past Surveys

There have been a number of surveys over the past twenty years that have gathered vital knowledge about audiovisual collections held throughout the world. These have helped us evaluate the developing state of the field and hone the questions we wish to be answered through this survey. A handful of the most pertinent cases are summarised here to provide a contextual background for the exigencies of MTAP.

TAPE: Tracking the reel world, A survey of audiovisual collections in Europe European Commission on Preservation and Access, 2004–2008

This report was published in the framework of TAPE (Training for Audiovisual Preservation in Europe), a project funded under the Culture 2000 Programme of the European Union. Its five partners included: the European Commission on Preservation and Access, Amsterdam; Finnish Jazz and Pop Archive, Helsinki; Head Of State Archives in Poland, Warsaw; Phonogrammarchiv, Austrian Academy of Sciences, Vienna; and Reproduction, Binding and Restoration Centre for the State Archives of Italy, Rome.

The TAPE survey was focused on ‘minority collections’ of all sound and vision formats in collections across European museums, libraries and institutes, as distinct from large-scale broadcast and dedicated audiovisual archives. These types of collections were determined to be most at risk due to their limited representation in national conversations of audiovisual heritage: “Most of the references to ‘audiovisual heritage’ in the political debate, especially in the EU, concern either the cinematographic heritage or the multimedia production environment and broadcasting. This view fails to do justice to the wealth of audiovisual materials kept outside the mainstream, and has resulted in lack of supporting infrastructure for those in charge of these collections” (TAPE, 2008:1). TAPE recognised that minority collections have great value at the local and regional level, for specific user communities and for “specialist research in the history of music, languages, and performing arts” (TAPE, 2008:2).

The TAPE survey received responses from 374 organisations in 34 European countries. Some key findings include a general lack of professional association across the respondents, meaning that access to information and expertise is limited. The TAPE project was particularly eager to promote training for the management of audiovisual collections,

discovering that many institutions across Europe had staff that would benefit from professional training. www.tape-online.net

Survey of Endangered Audiovisual Carriers

IASA, International Council of Archives, and UNESCO's Information Society Division, 2003 (1995)

This survey was undertaken by the Technical Committee of IASA, with assistance from the International Council of Archives on behalf of UNESCO's Information Society Division, as a follow up to an earlier same-titled survey in 1995.

The project aimed to determine the type, quantity and condition of audiovisual carriers held in collections throughout the world, and to discover the state of digitisation of those collections and their means of preservation and access in light of the increasing obsolescence of playback machines.

The survey returned 118 replies from institutions in 42 countries, detailing 32 discrete carriers. It was learned that many institutions lack adequate technical support in terms of expertise and training, whether in person or through accessible resources. Some of the respondents to the 2003 survey had previously responded to the 1995 survey, revealing a rate of decay of some of their collection items in line with expectations for those particular carriers. As a result of the survey, the UNESCO Memory of the World Programme and its Sub-Committee on Technology (SCoT) produced a series of technical guides for collection management. IASA's Technical Committee guides were also developed with information gathered from this survey.

www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/programme_doc_survey_report.pdf

Archiving the Music World

British Library and Music for Change, 1999

Archiving the Music World was a joint project between the International Music Collection (IMC) of the British Library (now the World and Traditional Music section), and Music for Change, a charitable organisation that supports community music projects throughout the world, and part funded by the Ralph Vaughan Williams Fund and IASA.

The project “aimed to compile a database of collections of recorded music throughout the world, to highlight their existence, condition, status, accessibility, and plans for preservation. It focused primarily on countries where formal structures for the preservation of sound recordings are relatively new... where resources and expertise are scarce, and existing collections are in danger of being lost” (Archiving the Music World Report, 1999:2), namely countries outside of the European Union and North America.

The project received 117 responses from a total of 66 countries. Some of the key problems that the survey encountered include the absence of a preservation policy among a significant portion of their respondents, a lack of governmental interest and funding to support musical heritage at a national level, limited professional training available to collection managers, and a lack of public awareness and/or interest in the importance of sound archives.

Quantifying the Need: A Survey of Existing Sound Recordings in Collections in the United States

AVPreserve, 2014

AVPreserve and the Northeast Document Conservation Center (NEDCC), with funding from The Andrew W. Mellon Foundation, produced this survey and report to overview the state of audio items held in institutional collections across the USA, following a call for the appraisal of such collections by The Library of Congress National Recording Preservation Plan in 2012.

This survey encompassed only institutional collections, not those held privately. The primary intention was “to acquire a dataset reliable enough to allow us to project the total quantity of preservation-worthy, not-yet-digitized audio holdings in collection-holding organizations throughout the US” (AVPreserve, 2014:17). The survey was one part of a deeper examination of institutions across the United States and an extrapolation of the results from a number of previous surveys. Another outcome was to determine an estimated cost for the digitisation of these items.

The report revealed the enormous scale of the problem: over 250 million items of preservation-worthy audio were extrapolated from the survey to exist (i.e. unique or rare recordings), whose digital preservation would cost over \$20 billion US.

www.weareavp.com/quantifying-the-need-a-survey-of-existing-sound-recordings-in-collections-in-the-united-states/

National Audit of UK Sound Collections

British Library, 2015

The National Audit of UK Sound Collections was undertaken in 2015, feeding into the British Library's expansive 'Save our Sounds' programme (2017–2022). The Audit focused on gathering information about UK sound collections, including condition, formats, extent, uniqueness and content in order to develop a UK Sound Directory. The goal was to assess the state of audio collections held by institutions, societies, associations, trusts, companies and individual collectors across the UK. The results of the audit have helped determine the extent of recorded sound collections in the UK and map the risks they face. Extending from this, through the Save Our Sounds programme, the British Library have engaged with ten partner institutions across the UK where advice, training and preservation can be implemented to save 500,000 of the most rare and fragile recordings identified through the survey and to make them available online.

Between January to May 2015 the survey collected information on 3,015 collections, containing 1.9 million items, from 488 collection holders. This is to date the most comprehensive survey of its kind in the UK. The respondents form a database of collections, the UK Sound Directory, that comprises a list of all the entities that responded to the survey.

The core findings reveal a large percentage of the collections surveyed are both unique and at a very high preservation risk, whilst only a small percentage of those surveyed had been digitised. A significant number of respondents across all types of institutions and individuals indicated they do not have the capacity to manage their collections suitably, are concerned where best to deposit them for the long term, and expressed a desire for training in digital preservation.

www.bl.uk/projects/uk-sound-directory

BFI Unlocking Film Heritage / Heritage 2022

British Film Institute, 2012–2017 / 2017–2022

Between 2012 and 2017 the BFI, aided by National Lottery funding, established the 'Unlocking Film Heritage' programme to survey, digitise and enable the preservation of film material from regional and national film archives. In an attempt to preserve the UK's film heritage, the BFI engaged with "commercial facilities, Regional and National Film Archives as well as commercial rights holders to establish, harmonise and document technical standards and requirements for preservation and access"

www.bfi.org.uk/britain-on-film/unlocking-film-heritage

Key to the project was investment in the technology required to undertake mass digitisation, a data centre, and the development of a centralised database of these audiovisual media (the BFI Collections Information Database). In collaboration with their partners, over 10,000 titles were marked for preservation and have been periodically released to the public through this programme. Following this, in 2018 BFI began another five year programme, BFI Heritage 2022 www.bfi.org.uk/2022/. One aspect of this is the Video-Tape Project. Through it, consumer and professional tape formats in regional and national film archives have been surveyed and earmarked for preservation in a similar way, using the existing infrastructure developed for Unlocking Film Heritage. However, owing to the great variety of these tape formats, a comprehensive skills transfer and training programme was necessarily developed.

FIAT/IFTA Timeline Survey

International Federation of Television Archives, 2018

The FIAT/IFTA Timeline Survey is an annual enquiry of the Fédération Internationale des Archives de Télévision / International Federation of Television Archives among its members of archives, institutions and broadcasters. The survey measures the use of preservation technologies and guidelines among its members, and examines the progress of preservation and transfer programmes, repositories of digital files, and remote access capabilities. As professionals within their industry, members are generally aware of audiovisual preservation principles, so FIAT/IFTA's focus is to assist member archives to improve their methods and upgrade their performance.

<http://fiatifta.org/index.php/2018/11/26/timeline-survey-2018-here-are-the-results/>

2.2 Summary of Past Surveys

The surveys developed by TAPE and IASA focused on obtaining a quantitative as well as a qualitative picture of audiovisual preservation. Apart from obtaining information on collections and their content, these surveys also provided important information on the awareness of audiovisual preservation methodology. Consequently, these surveys also enhanced the endeavours of capacity building in the form of drafting technical guidelines and arranging tutorials and workshops.

FIAT/IFTA's surveys are essentially for the benefit of its worldwide member organisations, but these results can be extrapolated to any broadcast organisation who wishes to compare its own practices. FIAT/IFTA's regular surveys are an annual examination of the state of the

field, where its member organisations can contribute and explore how to improve their preservation methodologies, such as metadata collection, content management systems, storage solutions, and evaluate audience accessibility to collections.

The National Audit of UK Sound Collections, TAPE, AVPreserve, and BFI surveys took the form of a national review. AVPreserve and BFI examined only institutional collections, whereas TAPE and the National Audit also took private collections into consideration. The end result of all these surveys, however, reached similar goals, in that their focus was to produce an overview of the extent and condition of archives within a discrete geographic boundary, and/or types of institution that are connected to one another through their related activities. The benefit of these restricted foci is the depth that can be achieved through them, as institutions can be more precisely targeted, their networks explored, and long-term partnerships developed. The National Audit and the BFI surveys also have an active digitisation element intrinsic to their programmes: the National Audit aimed to set up regional hubs for training and preservation, and the BFI had the added capacity to provide a centralised database and data server for digital preservation.

IASA's Survey of Endangered Audiovisual Carriers, TAPE, and the British Library's Archiving the Music World projects were similar in that they had an international focus and aimed to gather information about collections with a particular risk factor. In the case of the Survey of Endangered Audiovisual Carriers, the risk took the form of a particular range of obsolete audiovisual formats; for TAPE this was so-called 'minority collections' stored in museums, libraries and institutes that were at risk due to such institutions having limited representation at a national level; and Archiving the Music World placed its focus on institutions and individuals in worldwide locations where formal structures for the preservation of sound recordings were relatively new, and where resources and expertise are limited.

The findings of all these surveys point to the same core problems that have plagued audiovisual archiving over the past two or three decades: there is an uneven distribution of public and private investment in audiovisual preservation across the world, there remains a general lack of awareness among the general public of the scale of the problem and the impact on cultural heritage faced by the loss of our collections, there is an urgent need to pass on the specialist skills needed to digitise obsolete formats, and there remains a lack of sufficient training for collection managers. Meanwhile, evidence from repeat surveys among institutions (such as the 1995 and 2003 IASA surveys) provide clear evidence that many audiovisual carriers are, indeed, degrading at the rates calculated, maintaining 2025 as a very real deadline for preservation.

On the positive side, over the past five to ten years we have seen a general increase in the number of surveys and preservation activities resulting from them, the increasing regularity and breadth of scope of such projects, and the range of professional institutions engaged in them (as commissioners and as respondents), suggesting that the engagement in tackling these problems is rising. With the development of guidelines on best practice (such as IASA's Technical Committee publications) and the rise in accessibility of the Internet, many professional organisations offer a range of workshops, tutorials, podcasts, digital resource packs, and websites that provide access to information which can assist institutions and individuals around the world to engage with these problems and find answers to their questions.

2.3 Scope of the MTAP survey

A number of elements from the surveys and reports outlined above influenced the structure and methodology of the MTAP survey, forming a body of research that alerted IASA and UNESCO IFAP to a number of shared concerns. The questions that underpin the MTAP survey are rooted in three key areas of interest.

1. The distribution and content of magnetic tape collections:

- How many collections can we identify and where are they located?
- What type of unique content do they contain?

2. The extent of magnetic tape collections:

- What magnetic tape formats are present in these collections?
- In what quantities?

3. The management of magnetic tape collections:

- Who, or what type of organisation, holds these collections?
- What is the capacity of these stakeholders to manage these collections, in terms of technical expertise and funding?
- What plans do they have to preserve the carriers and their content?
- What form of digitisation has been applied to these collections, and to what stage has this been completed?
- Does the stakeholder actively engage in training or assisting other entities, or would they be interested in doing so?

A number of important corollary questions emerge when we interrogate the responses to these questions, such as: Which geographic regions are more or least represented? Which type of institutions are at a more advanced stage of digitisation? Which type of institutions are best placed to assist others?

We were particularly interested to learn more about collections held by private individuals, or small organisations to which IASA and UNESCO do not have easy access. We were also keen to discover collections that contain material beyond the more typical radio and television, traditional music, popular music, and art music categories, to discover collections that contain language, dialect, oral history, drama and literature, and new media art material (as examples). Major institutions were not our primary target audience; however, such institutions were often helpful in promoting our call to others.

Ultimately, owing to the varied nature and capacity of the expected respondents, it was not feasible to ask very detailed questions – such an approach may alienate the very stakeholders that we were trying to target. As such, the respondents were encouraged to provide more information in a comments field, to expand on their submission and express their concerns. This inclusivity was a key aesthetic element of the survey and the methodological approach that we took.

The survey was placed on the website www.mtap.iasa-web.org and was open for submissions between 15 July 2019 and 31 May 2020. The questions were available in six UN languages: English, French, Spanish, Russian, Arabic, and Mandarin Chinese.

The full list of survey questions were as follows.

2.4 MTAP Survey Questions

1. Holder of the collection

- a) Name of the collection / holder of the collection

Where the collection is held (this information is required but you may opt to keep it private)

- b) Address where collection is held
- c) Institution the collection is part of (if relevant)

2. Content of the collection

- a) This survey concentrates on unique recordings. Please indicate main focuses in terms of subjects and regions where recordings were made, for example, oral/visual history, language/dialect, folk/traditional music, dances, rituals, cultural, historical and political documentation, popular music, natural sounds, radio content.

3. Number of magnetic tapes in the collection?

- a) Estimate the number for each format in the collection.

Audio: open reel, compact cassettes, R-DAT, Other digital

Video: VHS, Betamax, Video 8/Hi 8, U-matic, Other analogue, DV, Other digital video

4. Is there a preservation plan in place for the transfer of contents from original carriers to a digital repository?

- a) Preservation plan: Yes / Yes, but not sufficiently financed / Not yet / Not sure
- b) Transfer to digital: File based / Carrier based / Not sure
- c) Transfer to digital: Finished / Partly finished / Not sure

5. Availability and maintenance of modern replay equipment and professional staff?

- a) Equipment: Yes / No
- b) Professional maintenance: Yes / No
- c) Trained staff: Yes / No

6. In case of positive answers to 4 and 5: Would you be ready to assist other institutions?

Yes / No

7. Would you welcome training in audiovisual preservation? (choose any of the following)

For managers / For archivists

8. Comments

9. Agreement

By filling in this questionnaire, I support the intention of the Magnetic Tape Alert Project that the information provided through the questionnaire will serve as a basis for the planning of adequate solutions for the safeguarding of these irreplaceable original documents in the long term.

I agree that information gathered will be kept by UNESCO and IASA and made accessible to (national) institutions, including government ministries/departments, and UNESCO Commissions.

I also agree that provided information will be used to compile a report that will be made publicly available.

10. Name of the person completing the survey

11. Telephone number

12. Email address

13. Collection privacy option (select one)

- I agree to the publication of the name of the collection/the collection holder and the address of its storage
- I wish for complete anonymity concerning the name of the collection/the collection holder and the address of its storage in the report made publicly available

2.5 Communication Strategies

IASA reached out to potential respondents via four main channels: email mailing lists, direct emails (drawn from a range of professional sources), social media, and word of mouth via IASA ambassadors, colleagues, and at international conferences. UNESCO IFAP made use of their network of field offices, national commissions, and regional and national committees for Memory of the World and for IFAP.

We identified the most active international mailing lists and professional communities that pertain to musicology, anthropology, language, archives, and preservation, and distributed posts to them directly, or with the assistance of colleagues. Some of these networks with the largest memberships include: American Folklore Society (AFS), Archives Portal Europe (APE), Association for Recorded Sound Collections (ARSC), Baltic Audiovisual Archiving Council (BAAC), Brazilian Association of Audiovisual Preservation (ABPA), British Forum for Ethnomusicology (BFE), Community Archives and Heritage Group (UK and Ireland), Coordinating Council of Audiovisual Archives Associations (CCAAA), Endangered Languages Project, EuropeanaTech, Federation of Recorded Music Societies (FRMS), H-Net, International Association of Music Libraries (IAML), International Association of Sound and Audiovisual Archives (IASA), International Council for Traditional Music (ICTM), International Federation of Television Archives (FIAF/IFTA), Royal Musical Association (RMA), Society for Arab Music Research (SAMR), Society for Ethnomusicology (SEM), SOAS Endangered Languages Documentation Programme, and Southeast Asia-Pacific Audiovisual Archive Association (SEAPAVAA).

We approached many other professional bodies and 80 key individuals operating within our fields of interest to share the MTAP survey to further mailing lists and to public and private networks they are a part of. As an additional phase of this process, we reached out via direct email to 451 IASA member organisations and to the 117 respondents (or their institutional successors) to the Archiving the Music World project. We also had the assistance of ten IASA ambassadors – committed IASA volunteers who represent the organisation by giving advice and assistance to sound and audiovisual heritage preservation activities occurring within their regions of experience – who raised awareness of the project and the survey among their colleagues. MTAP was also promoted at several international audiovisual archiving conferences (see Appendix A).

We posted to IASA's Facebook and Twitter social media channels on a number of occasions, promoting the call and updating readers to the progress of the project. These

posts were shared both organically and by us to a number of other groups with significant memberships. The number of followers to the social media groups that we were able to track total over 22,000. A number of large organisations shared information about the project to their websites and blogs (see Appendix A for a selection of the most prominent).

UNESCO has a large network that was mobilised for the project, comprising numerous field offices, national commissions, regional and national committees for the Memory of the World programme, and the national committees for IFAP Information Preservation Working Group. Through direct contact by Programme Specialists of UNESCO's Communication and Information Sector and the Culture Sector, a number of significant international networks were mobilised, including Coordinating Council of Audiovisual Archives Associations (CCAAA), International Council on Archives (ICA), International Federation of Libraries and Library Associations (IFLA), International Council of Museums (ICOM), International Music Council (IMC), International Council on Traditional Music (ICTM), International Union of Anthropological and Ethnological Sciences (IUAES), NGOs in close collaboration with UNESCO Atlas of World's Languages in Danger, and the Intangible Heritage and Cultural and Linguistic Diversity Sections.

It is difficult to quantify which of these methods garnered the most responses, but certain trends were noticed. The most responsive communication method seems to have been via IASA ambassadors and communication amongst colleagues, several of whom were willing to give more detailed information (and ask more questions) via email. Direct emailing also tended to return a good response rate in the immediate days that followed, as well as garnering reply messages and instigating several email discussions. Facebook posts were well received, and there was a definite upward trend of submissions following our posts, particularly from the USA and South America. The particularly high number of respondents from the latter region is possibly a result of this social media engagement. Mailing lists did not appear to generate as much of a response as we would have hoped, when we consider their high number of subscribers. However, without having put in place a comprehensive URL campaign tracking system, we cannot confirm these trends.

3. Overview of the Survey's Reach

The MTAP survey was available on www.mtap.iasa-web.org and open to submissions between 15 July 2019 and 31 May 2020. The survey received a total of 411 submissions from 355 unique respondents. The collections identified reside in 76 different countries.

A total of just over 8.5 million audiovisual items were accounted for in this survey, of which 4.4 million are audio items and 4.1 million are video items. The most common audio format by quantity is open reel tape, and the most common video format is VHS / Betamax. The most common audio format by frequency of distribution across collections is audiocassette, and for video this is again VHS / Betamax.

Almost half of the total amount of material identified is held by public and research libraries and archives. The most common types of institutions that responded to the survey are public libraries and archives, and academic institutions and associated libraries and archives.

4. Survey Results and Analysis

The results of this survey should be read in two ways. Firstly, as direct responses to the questions of the survey itself – to determine the distribution and state of preservation of the world's audiovisual heritage stored on magnetic tape – and secondly, as a reflexive assessment of the access that IASA and UNESCO have to such collections worldwide. Both of these perspectives are taken in the analysis in order to give a more meaningful interpretation to the results. The collected data can, of course, be interpreted in many other meaningful ways. The raw survey data is therefore provided separately to this report, so that it may be used by other interested parties for such purposes (redacted where requested by the respondent).

Some respondents returned submissions at collection level rather than institution level, hence there being a disparity between the number of submissions and the number of respondents. Data is analysed from one or both of these perspectives, depending on the nature of the query.

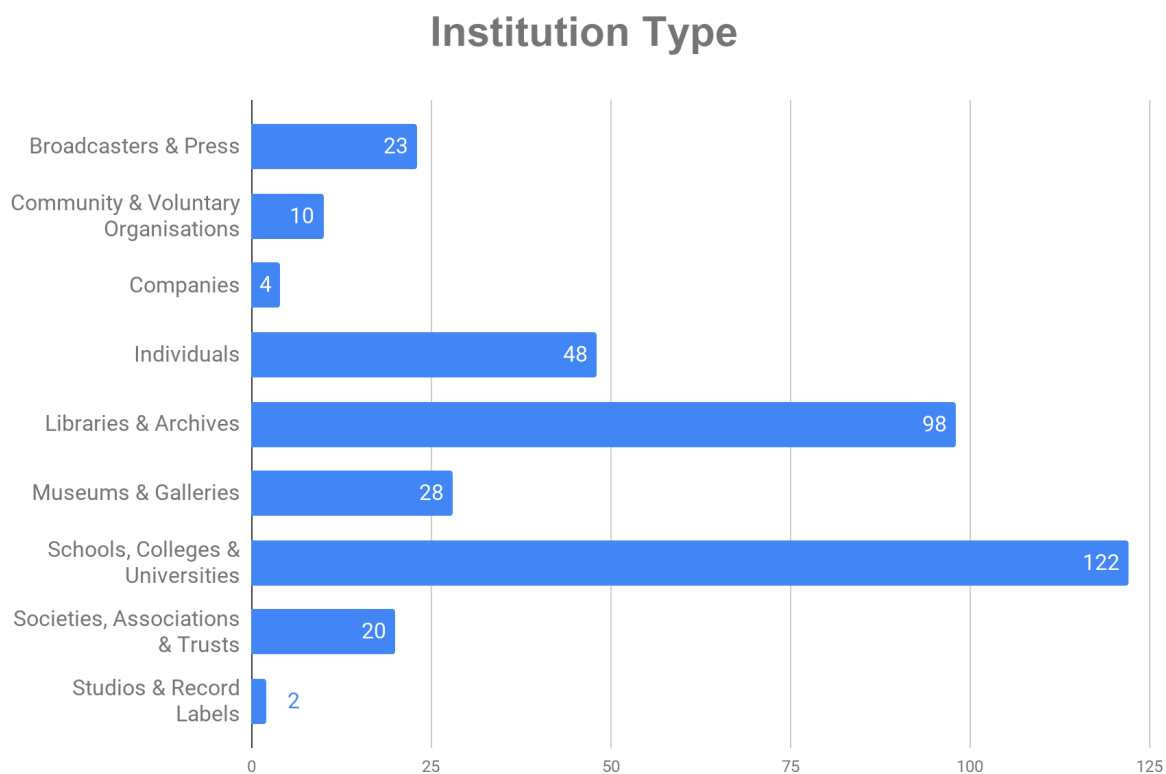
The results of the survey are arranged as follows: the type of institutions that responded, the extent of audiovisual objects, the regional distribution of collections, the preservation activities that are in place, the extent of staff expertise and prevalence of playback equipment, and the capability for respondents to provide training and assistance to others.

4.1 Types of Institution

The 355 respondents to the survey can be organised into broad 'Institution Types', determined by the nature of their organisation and their collections. In some cases these denominations were indicated in the submission itself, but in others they were interpretively assigned according to further research. These nine categories, detailed below, are adapted from those designated by the National Audit of UK Sound Collections (2015:9).

Institution Type	Description	Total
Broadcasters and Press	Radio and television (state and private).	23
Community and Voluntary Organisations	Voluntary organisations and those with a focus on regional communities.	10
Companies	Entities with a commercial interest in audiovisual material and/or archives.	4
Individuals	Private collections not affiliated with an institution, company or governing body.	48
Libraries and Archives	Institutions holding library or archive collections, including public and research libraries (not including libraries and archives associated with academic institutions).	98
Museums and Galleries	Institutions providing public access to museum collections and/or artworks.	28
Schools, Colleges and Universities	Academic institutions and associated libraries and archives providing education from secondary level to HE/FE, including independent and state schools.	122
Societies, Associations and Trusts	Scholarly and professional non-profit organisations.	20
Studios and Record Labels	Sound and video recording studios and record labels.	2

Schools, Colleges and Universities (34.4% of the total respondents) and Libraries and Archives (27.6%) account for the majority of the respondents, followed by Individuals (13.8%), Museums and Galleries (7.9%), Broadcasters and Press (6.5%), Societies, Associations and Trusts (5.6%), Community and Voluntary Organisations (2.8%), Companies (1.1%), and Studios and Record Labels (0.6%).



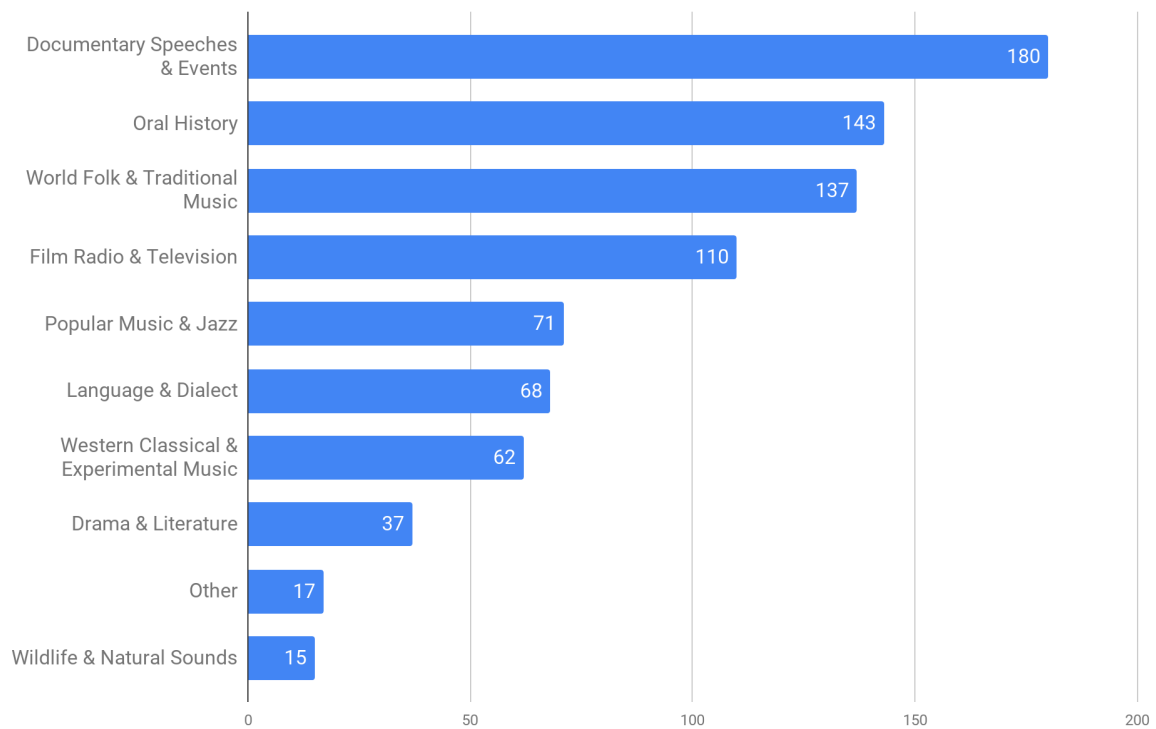
The 411 submissions were broadly labeled according to their content, following categories again adapted from the National Audit of UK Sound Collections (2015:10). The nature of each of these institutions' holdings were derived from the 'Content' description field of the survey submission. The content of each submission could be categorised by any number of the following categories.

Collection Content	Description	Total no. of instances
Documentary, Speeches and Events	Recordings of documentaries, speeches, events or ceremonies for private or commercial purposes.	180
Drama and Literature	Recordings of dramatic and literary works, including theatre recordings, prose and poetry readings.	37
Film, Radio and Television	Off-air recordings of radio and television programme broadcasts and news items, and film.	110
Language and Dialect	Recordings made primarily to demonstrate a particular language, accent or dialect.	68
Mechanical Sounds	Recordings of non-musical machines.	4

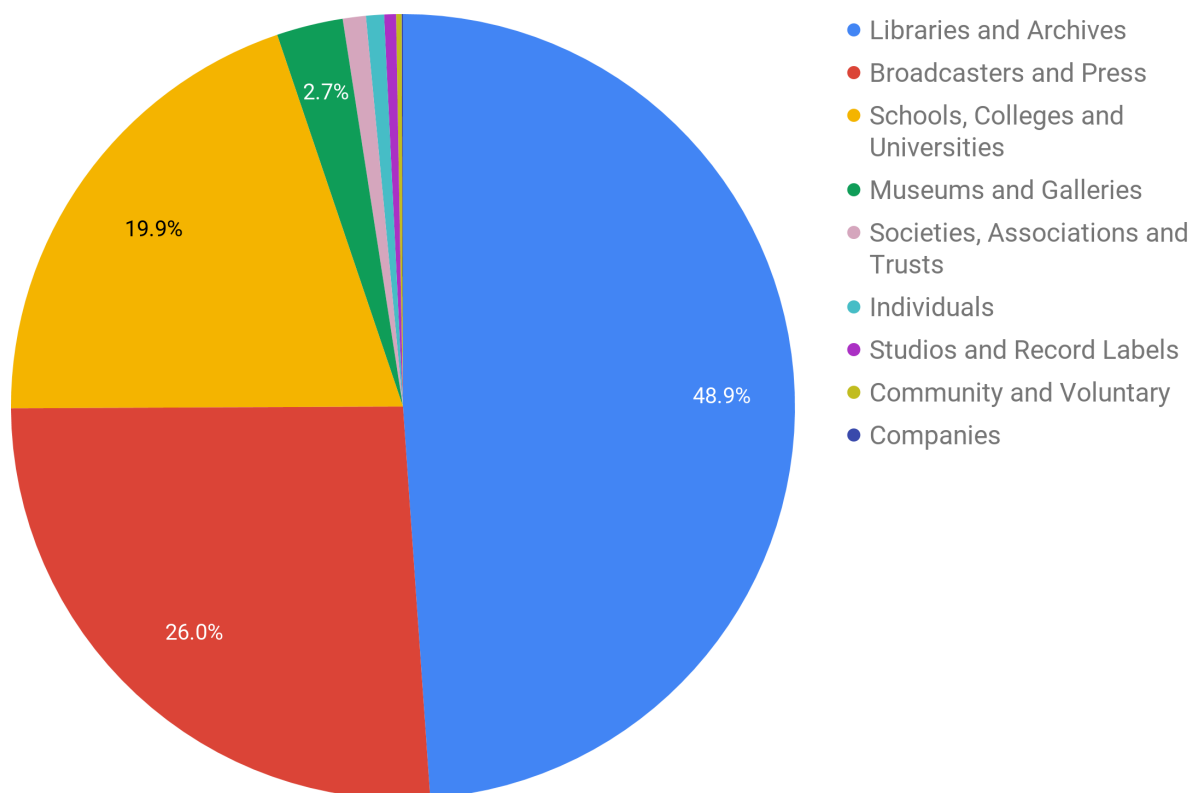
New Media and Performance Art	Recordings of performance art, new media art, video art and related documentation	3
Oral History	Recordings of interviews and personal memories relating to individuals, families, significant events and everyday life.	143
Popular Music and Jazz	Recordings of popular music that are not classified as western classical or world, folk and traditional music.	71
Western Classical and Experimental Music	Recordings of western art music, experimental music and sound art.	62
Wildlife and Natural Sounds	Recordings of animals and natural environments.	15
World, Folk and Traditional Music	Recordings of traditional music relating to particular regions or cultures.	137
Other	Any recordings not falling within the above collection subject areas.	17

The most commonly found content categories are 'Documentary, Speeches and Events' (present in 21.3% of the submissions), 'Oral History' (16.9%), 'World, Folk and Traditional Music' (16.2%), and 'Film, Radio and Television' (13%).

Content Categories



If we consider the distribution of audiovisual objects across institution types, we can discern which type of institutions hold the largest cumulative number of objects. Libraries and Archives hold 48.9% of the total audiovisual objects identified in the survey, followed by Broadcasters and Press with 26%, and Schools, Colleges and Universities with 19.9%.



Breaking this down further to consider what type of content is most prevalent in each institution type is not practical with the size of the data sample we have gathered. However, a brief glance at this data indicates that Libraries and Archives do account for the broadest range of content categories, whilst Broadcasters, necessarily, account for a high proportion of Film, Radio and Television content, and Documentary, Speeches and Events material.

However, it is prudent to not read too deeply into macro data for content, as significant and often highly focused material is often found in the smallest institutions, typically held by Individuals, Community and Voluntary Organisations, and Museums and Galleries. What is more important is to identify which institution types are at more risk (see section 4.4, under Preservation Plans) and to determine whether the content they possess is unique or rare.

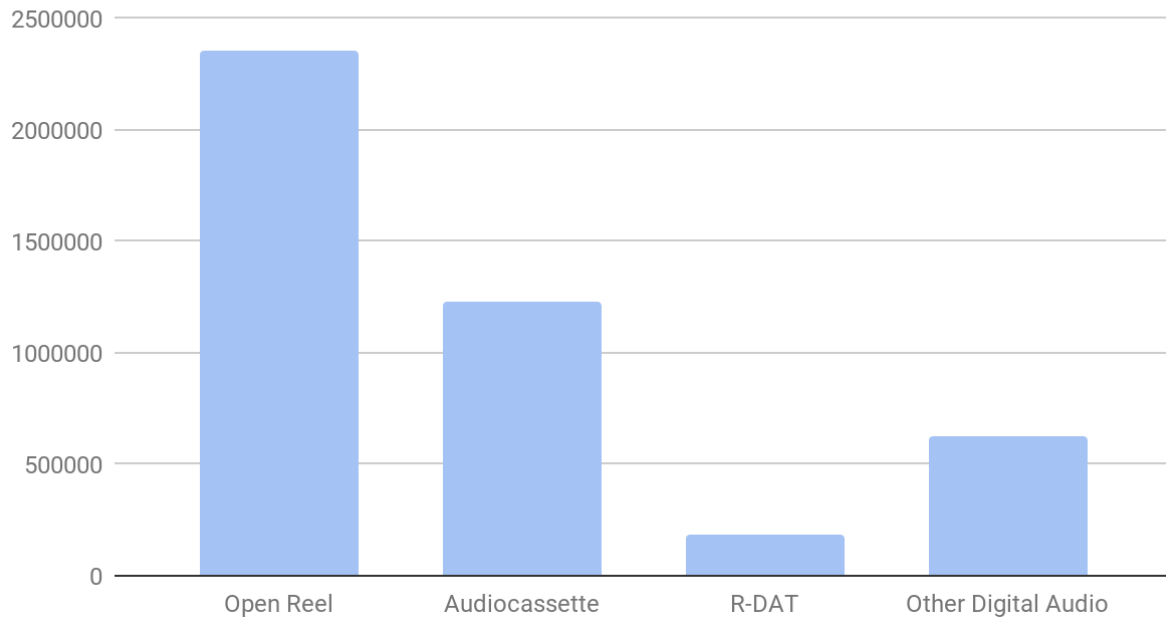
4.2 Audiovisual Objects

A total of 8,520,109 audio and video objects were identified through the MTAP survey. It should be noted, however, that some figures provided by respondents were estimates of their holdings. The survey specifically listed as categories nine of the most common audio and audiovisual magnetic tape carriers (open reel, audiocassette, R-DAT, VHS, Betamax, Video8, Hi8, U-matic and DV), and accounted for more esoteric magnetic formats through the additional catch-all categories 'Other Digital Audio', 'Other Analogue Video', and 'Other Digital Video'.

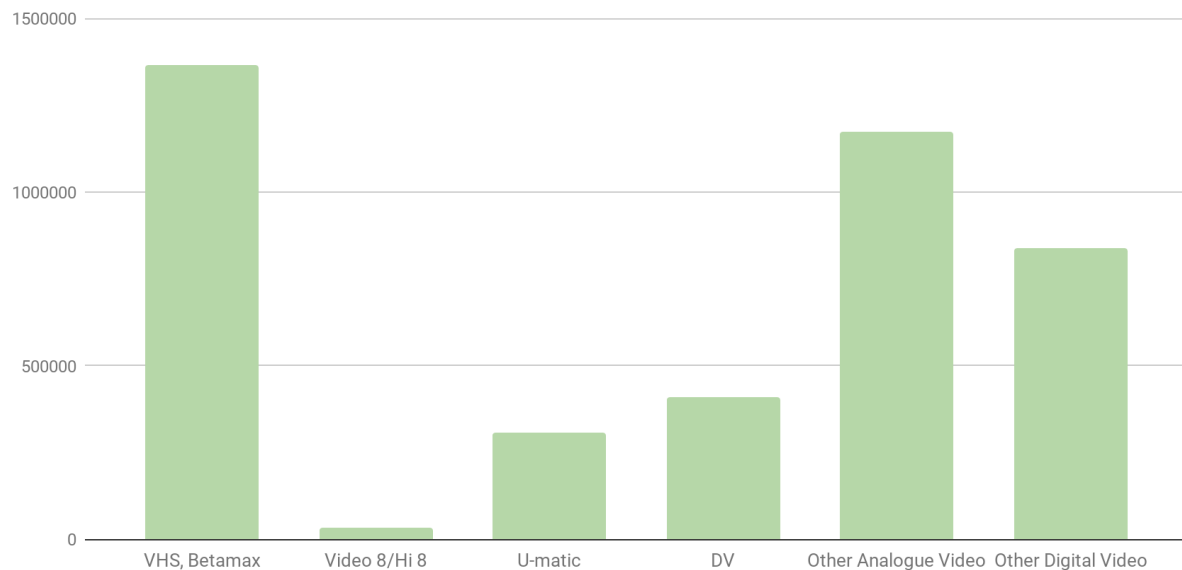
Audio	Quantity
Open Reel	2,351,225
Audiocassette	1,232,188
R-DAT	184,343
Other Digital Audio	627,504
Total	4,395,260

Video	Quantity
VHS, Betamax	1,364,531
Video 8/Hi 8	32,406
U-matic	306,914
DV	409,156
Other Analogue Video	1,171,989
Other Digital Video	839,853
Total	4,124,849

Audio Objects



Video Objects



It is not surprising that open reel tape, the format in this survey with the longest active use, accounts for over half of the audio formats and over a quarter of the total quantity of objects found in the survey. Yet, some of the other formats identified in smaller quantities may be at a greater preservation risk, owing to their faster rate of obsolescence (U-matic, Video 8, Hi8) or their cliff-edge degradation characteristics (DV and DAT tapes). VHS and Betamax are

the most common video formats in this survey, but their prevalence (particularly in the case of VHS) has become perhaps their greatest risk factor, where a general inaction toward their preservation in favour of older or more apparently fragile media has resulted in a mountain of rapidly degrading material from the very recent past.

This report is not the place to delve into the relative risks faced by these formats. More detailed information in this regard can be found in such resources as the Preservation Self-Assessment Program (PSAP) <https://psap.library.illinois.edu>, or the Museum of Obsolete Media <https://obsoletemedias.org>, among others.

The most prevalent formats found across the 411 submissions are audiocassettes (found in 296 submissions), open reel audio (286), and VHS / Betamax (252).

Audio format	Number of instances in submissions
Open Reel	286
Audiocassette	296
R-DAT	158
Other Digital Audio	123

Video format	Number of instances in submissions
VHS, Betamax	252
Video 8/Hi 8	131
U-matic	161
DV	161
Other Analogue Video	123
Other Digital Video	103

Of the total number of audiovisual objects identified in the survey, 31% are in the categories Other Digital Audio, Other Analogue Video, and Other Digital Video. It is not clear what these formats may be, but judging by some respondents' comments it would appear that a large proportion of 'Other' video formats are professional television audiovisual carriers, including 1-inch Type C, 1/2 inch video tape, Betacam / SP / SX, Digibeta, IMX, and D-2 videocassette.

In fact, 68% of the items classified in the categories Other Analogue Video and Other Digital Video come from among the 26 respondents that we categorised primarily as Broadcasters and Press institutions. Similarly, 60% of the items classified in the Other Digital Audio category come from broadcast archives. This leads us to believe that the various 'Other' categories are indeed largely professional audio and audiovisual formats, as used by broadcast organisations and archives with professional film and television material. Furthermore, figures for these 'Other' categories are heavily skewed by the typical scale of institutions that hold television material. For example, two broadcast archives together account for 40% of the Other Digital Video objects; and 49% of Other Analogue Video items are held by three broadcast archives.

4.3 Regional Distribution

The 355 respondents' collections are distributed across 76 countries. We can categorise these countries by region and subregion following the United Nations geoscheme. This presents us with a view of the global distribution of these collections. This type of continental categorisation does not take into account political, cultural or professional affinities which could affect how connected to international networks each country may be, but until countries are mapped in terms of these audiovisual archiving networks, this remains a convenient and long-established means of statistically grouping countries.

Africa region	
Subregion / Country	Number of respondents
Northern Africa	Total 2
Tunisia	2
Eastern Africa	Total 2
Malawi	1
Somalia	1
Middle Africa	Total 6
Cameroon	1
Gabon	5
Southern Africa	Total 6
South Africa	6
Western Africa	Total 5
Ghana	3
Nigeria	2
Total number of respondents	21
Total number of countries	8

Americas region	
Subregion / Country	Number of respondents
Caribbean	Total 0
--	0
Central America	Total 9
Costa Rica	1
Honduras	1
Mexico	6
Nicaragua	1
South America	Total 29
Argentina	7
Bolivia	1
Brazil	7
Chile	2
Colombia	5
Paraguay	1
Peru	2
Uruguay	4
Northern America	Total 71
Canada	10
United States	61
Total number of respondents	109
Total number of countries	14

Asia region	
Subregion / Country	Number of respondents
Central Asia	Total 1
Kyrgyzstan	1
Eastern Asia	Total 5
China	2
Hong Kong SAR	1
South Korea	1
Taiwan	1
South-eastern Asia	Total 7
Malaysia	1
Philippines	3
Singapore	1
Thailand	2
Southern Asia	Total 10
India	6
Nepal	1
Pakistan	2
Sri Lanka	1
Western Asia	Total 7
Cyprus	1
Iraq	2
Israel	2
Oman	2
Total number of respondents	30
Total number of countries	17

Europe region	
Subregion / Country	Number of respondents
Eastern Europe	Total 11
Bulgaria	1
Czech Republic	3
Poland	1
Romania	2
Russia	2
Ukraine	2
Northern Europe	Total 108
Denmark	6
Estonia	2
Faroe Islands	1
Finland	3
Iceland	2
Ireland	7
Latvia	3
Lithuania	11
Norway	4
Sweden	4
United Kingdom	65
Southern Europe	Total 24
Albania	2
Croatia	1
Greece	1
Italy	4
Kosovo	1
North Macedonia	2

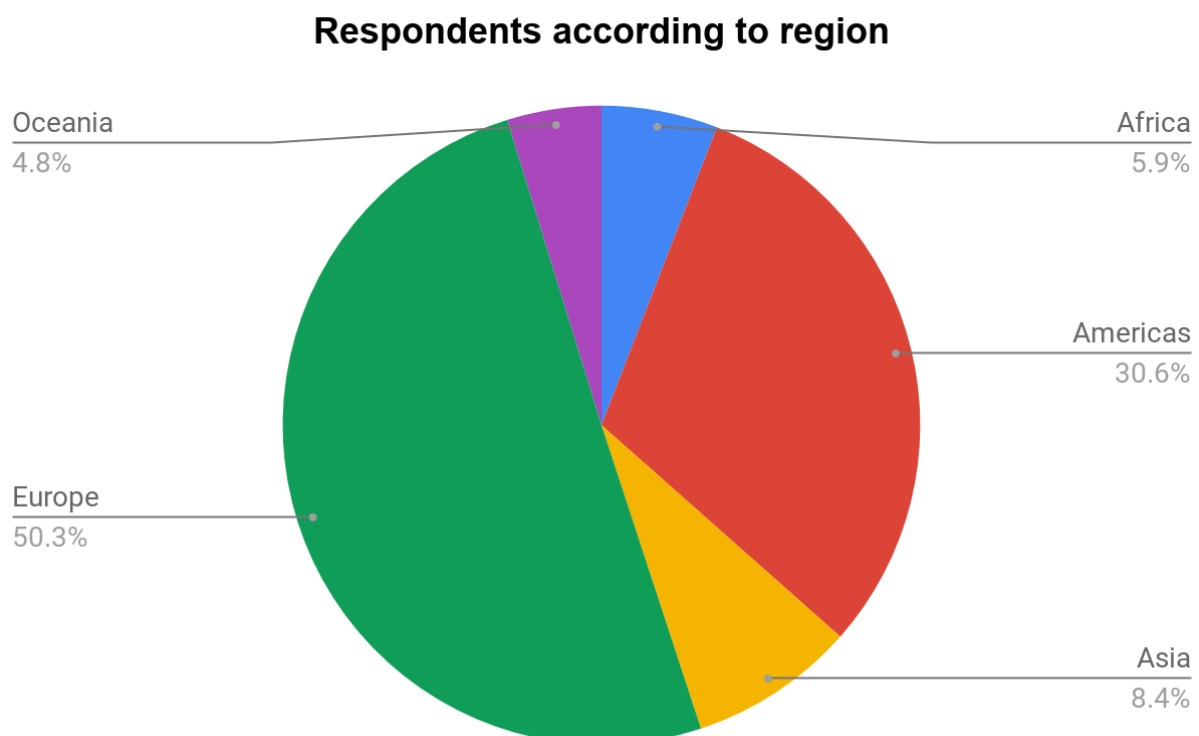
Serbia	3
Spain	10
Western Europe	Total 36
Austria	1
France	11
Germany	13
Netherlands	3
Switzerland	8
Total number of respondents	179
Total number of countries	30

Oceania region	
Subregion / Country	Number of respondents
Australia and New Zealand	Total 12
Australia	10
New Zealand	2
Melanesia	Total 1
Papua New Guinea	1
Micronesia	Total 1
Senyavin Islands	1
Polynesia	Total 3
Cook Islands	1
Niue	1
Samoa	1
Total number of respondents	17
Total number of countries	7

There are some interesting points to be drawn from this data, particularly in relation to the reach of the survey. The UK and the USA produced the most respondents by far. Institutions and Individuals in Germany, Lithuania, France, Spain, Canada and Australia contributed more than ten responses for each of their countries.

The lack of any response from the Caribbean subregion is striking, even more so when we compare the relatively high rate of responses across the rest of the Americas subregions. Conversely, across another island based region, in Oceania a number of countries responded, suggesting that their geographic remoteness from one another is tempered by good communication networks presumably within their region – and by extension to IASA and UNESCO IFAP networks. Tapping into such sub/regional networks, or facilitating their creation if they do not exist, should be a long-term aim in the promotion of audiovisual preservation.

When we aggregate the 355 respondents into their regions, as seen in the chart below, we find the majority are located in Europe and the Americas. These figures are somewhat skewed by the number of respondents from the UK and the USA (which together account for 35% of the total submissions received), highlighting an obvious bias in the reach of the survey and its methods of distribution.



It is also useful to examine the responsiveness of regions by considering how many countries in each region responded to the survey out of the total number of countries in that region. This reveals a more nuanced picture of the reach that IASA and UNESCO has in the context of this survey.

Africa	
Northern Africa	1 out of 7 (14%)
Eastern Africa	2 out of 22 (9%)
Middle Africa	2 out of 9 (22%)
Southern Africa	1 out of 5 (20%)
Western Africa	2 out of 17 (12%)
Total	8 out of 60 (13%)

Americas	
Caribbean	0 out of 28 (0%)
Central America	4 out of 8 (50%)
South America	8 out of 15 (53%)
Northern America	2 out of 5 (40%)
Total	14 out of 56 (25%)

Asia	
Central Asia	1 out of 5 (20%)
Eastern Asia	4 out of 7 (57%)
South-eastern Asia	4 out of 11 (36%)
Southern Asia	4 out of 9 (44%)
Western Asia	4 out of 18 (22%)
Total	17 out of 50 (34%)

Europe	
Eastern Europe	6 out of 10 (60%)
Northern Europe	11 out of 17 (65%)
Southern Europe	8 out of 17 (47%)
Western Europe	5 out of 9 (55%)
Total	30 out of 53 (57%)

Oceania	
Australia and New Zealand	2 out of 6 (33%)
Melanesia	1 out of 5 (20%)
Micronesia	1 out of 7 (14%)
Polynesia	3 out of 10 (30%)
Total	7 out of 28 (25%)

We can see that European countries are represented within each of its subregions at a rate of between 47% and 65%. The subregions with the most responsiveness in terms of country representation are Northern Europe (65%), Eastern Europe (60%), Eastern Asia (57%), Western Europe (55%), South America (53%) and Central America (50%).

It's also important to consider the number of responses from each country and how this relates to their subregion. In this respect, a high number of unique respondents from the South America and Northern Europe subregions, for example, suggest that institutions in these subregions are connected to one another through a number of possible channels and are actively engaged in audiovisual archiving, which helps to provide a self-sustaining and supportive network for institutions to thrive.

The Africa region was the least responsive, with countries in each of its subregions returning relatively low responses of between 9% and 22%. Eastern and Western Africa are poorly represented subregions. However, such macroscopic statistics belie the fact that in some African countries there were a significant number of responses and good engagement with the survey. South Africa, Gabon and Ghana provided a number of detailed submissions, whilst personal communications from individuals with a professional interest in audiovisual archiving provided useful background information for other African countries with few submissions.

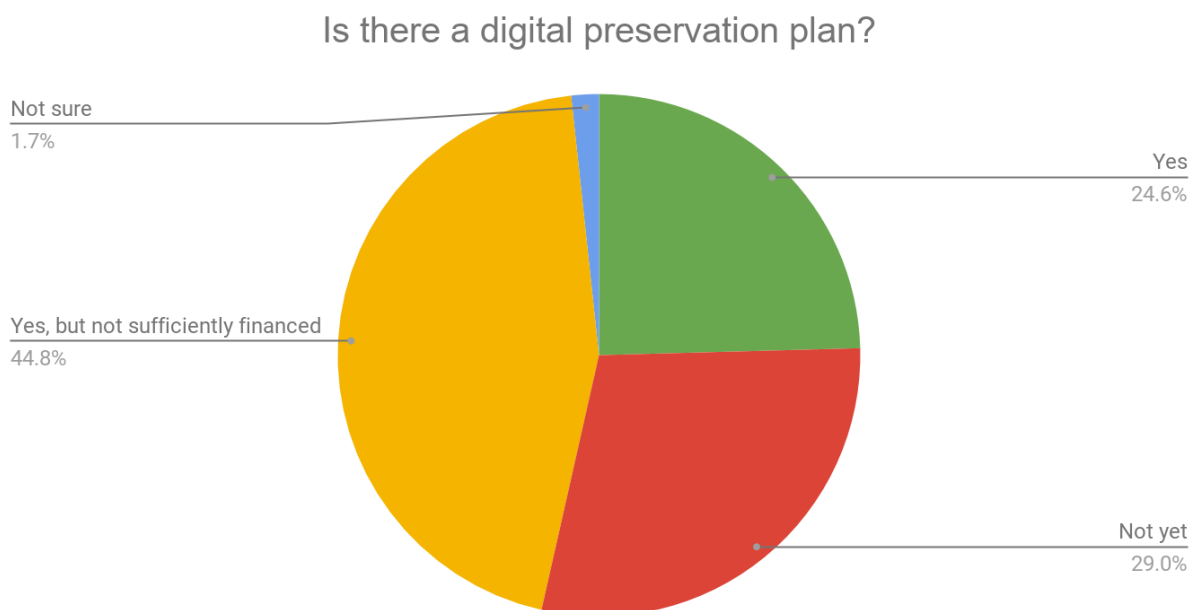
Analysing the number of respondents by country, subregion and region goes some way to reveal the relative access to collections that IASA's communications channels facilitate. It is clear that this reach primarily extends within Europe and the Americas, but there are a number of significant and willing contacts elsewhere in the world who can provide depth for regions in which we presently have less connectivity.

4.4 Preservation Plans

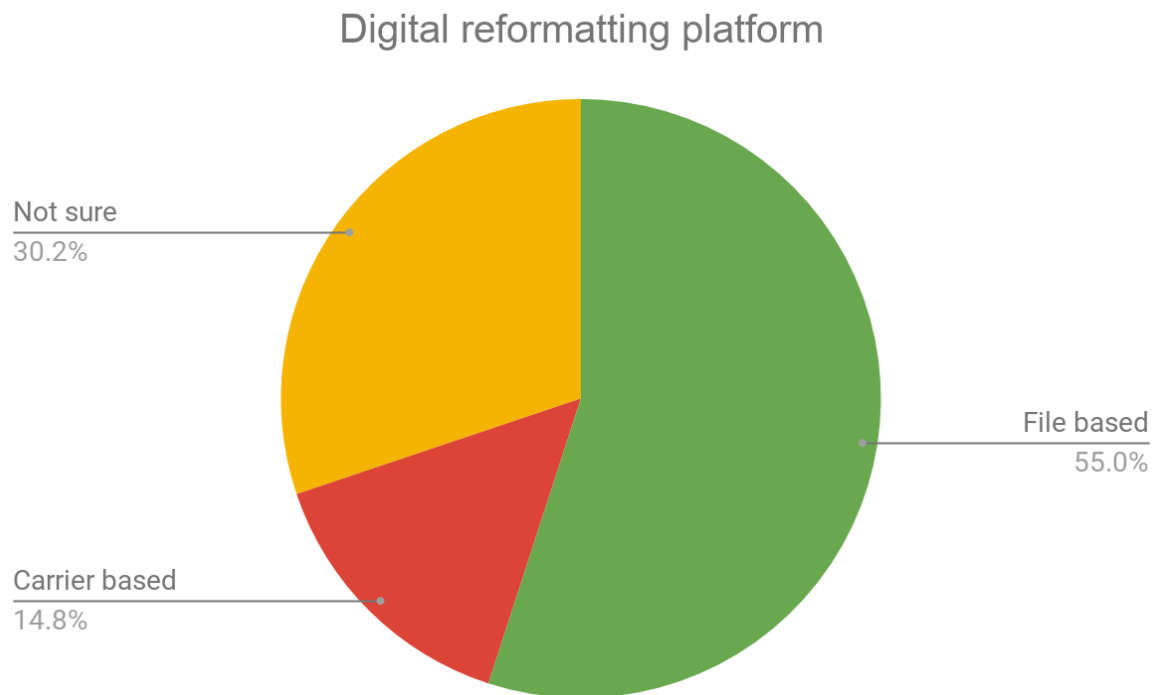
The survey question “Is there a preservation plan in place for the transfer of contents from original carriers to a digital repository?” had three constituent parts:

1. Is there a digital preservation plan?
2. Is the transfer to digital file based, carrier based, or not sure?
3. Is the transfer to digital finished, partly finished, or not sure?

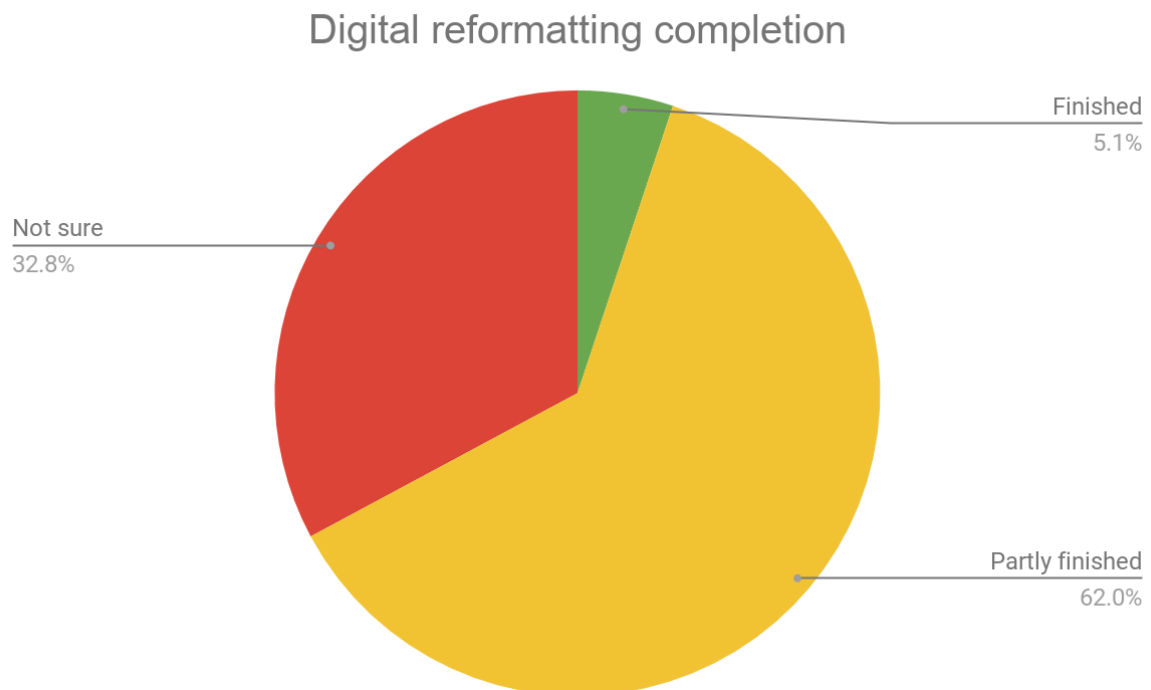
Taking figures from the 411 submissions (rather than from the 355 unique respondents, as collections in one institution may be at different stages of preservation), we can see 24.6% of the collections have a digital preservation plan in place and 29% do not. A further 44.8% have a plan that is not adequately funded, and 1.7% are unsure whether a plan exists.



55% of respondents who are undertaking digital reformatting on their collections are doing so to a file based system, with only 14.8% relying on a carrier based system. We may assume the 30.2% who responded “not sure” also include those who have no digital reformatting programme in place.



Only 5.1% of respondents claim their digital transfer process is complete, whereas 62% indicate the process is partially complete. 32.8% of the submissions returned “not sure”, which again is likely from those respondents who do not have a preservation plan in place and so have not undertaken this process.



Examining these three questions again from a narrower, institutional perspective, we can see how certain institutional types are at a better stage of digital preservation than others.

4.4.1 Is there a preservation plan in place for the transfer of contents from original carriers to a digital repository?

	Yes	Yes, but not sufficiently financed	Not yet	Not sure
<i>Average</i>	25%	45%	29%	2%
Broadcasters and Press	23%	50%	23%	4%
Individuals	10%	34%	52%	4%
Libraries and Archives	24%	55%	20%	1%
Museums and Galleries	12%	53%	35%	0%
Schools, Colleges and Universities	31%	39%	29%	1%
Societies, Associations and Trusts	30%	45%	25%	0%

Note: no preservation plan statistics were drawn for Community and Voluntary Organisations, Companies, or Studios and Record Labels, as the responses were too few to interpret meaningful statistics.

The lack of a preservation plan is a problem across all institution types, but – as we would expect – it is a clear issue for Individuals. 52% of the Individual respondents had no plan in place, and only 10% indicated that they have a plan that is sufficiently funded. The main concerns Individuals have communicated through the survey is a lack of access to equipment and the money needed to digitise, the safe storage of their physical collections (most are stored at home or else at a professional place of work, such as a university office), and the inability to find a suitable archive, library, or museum who would be willing to take their collection (a particular concern for older collection managers).

What is a little more surprising is the apparent lack of a preservation plan generally among Museums and Galleries, where 35% indicate having no plan and only 12% have a properly funded plan. A similar issue is found among Broadcasters and Press institutions, where we would expect that such commercial entities (as the majority of the broadcasters in the survey

are) would wish to commercially exploit their historic archive and therefore have a plan in place. However, this anomaly can be partially explained by the carrier formats themselves often being more difficult to digitise due to their professional nature, and therefore there are far higher costs incurred to locally source transfer equipment and expertise – if this is even possible. Indeed, a significant number of the broadcasters indicated having a plan that is not sufficiently financed (50%), and have a low average rate of ‘not yet’, or no plans, at 23%.

Clearly, it would benefit all of the survey respondents to develop a suitable preservation plan for their collections. In particular, those indicating a lack of a sufficiently financed plan would benefit from professional advice to determine ways of alleviating their problems through partnerships and awareness programmes. By developing a suitable preservation policy it would be easier to implement a plan, keep track of collection items and their preservation risks, and permit entities to more readily apply for necessary training and digitisation funds should they become available.

4.4.2 What is the transfer to digital format?

A file based preservation platform is not necessarily more secure than a carrier based one, however, the types of carriers often encountered in institutions used for preservation purposes tend to be CDs and DVDs (as indicated in some of the survey responses). In fact, this survey question included the help note “‘Carrier based’ refers to transfer to CD either as audio or data files. Such carrier based digital copies are considered at risk.” As such, we must assume the submitter accounted for this in their response. Responses of ‘not sure’ are at an even greater potential risk, as the submitter does not know exactly how their digital files are being stored.

With these caveats in place, we may take only the ‘file based’ response figures as indicative of collections in safe storage – and therefore indicative of institutions that are likely to have prepared and implemented a preservation plan. Here, we again see a pattern similar to that noted in the Preservation Plan question results (see 4.4.1): collections held by Individuals, and Museums and Galleries appear to be at greater risk than those held by other institution types.

	File based	Carrier based	Not sure
<i>Average</i>	53%	14%	32%
Broadcasters and Press	54%	19%	27%
Individuals	40%	8%	52%
Libraries and Archives	63%	19%	18%
Museums and Galleries	37%	16%	47%
Schools, Colleges and Universities	56%	14%	30%
Societies, Associations and Trusts	70%	10%	20%

4.4.3 How complete is the transfer to digital process?

This question produced disappointing, albeit expected, results. Out of the 355 respondents, only 16 (4.5%) indicated that they had completed digitising the magnetic tape material in their collection or institution. Clearly, there is a long way to go before even the collections identified through this survey may be considered secure. Societies, Associations and Trusts appear to be in a better state of partial digitisation (75%) than are Individuals (42%), or Museums and Galleries (59%).

	Finished	Partly finished	Not sure
<i>Average</i>	3%	62%	35%
Broadcasters and Press	0%	65%	35%
Individuals	4%	42%	54%
Libraries and Archives	4%	66%	30%
Museums and Galleries	3%	59%	38%
Schools, Colleges and Universities	7%	65%	28%
Societies, Associations and Trusts	0%	75%	25%

The 16 respondents who described the digitisation of their collections as complete are found in the following institution types:

Broadcasters and Press	0
Community and Voluntary Organisations	2
Companies	1
Individuals	2
Libraries and Archives	4
Museums and Galleries	1
Schools, Colleges and Universities	6
Societies, Associations and Trusts	0
Studios and Record Labels	0

4.5 Playback Equipment and Staff Training

This question consisted of three parts: whether the respondent had access to suitable playback and digital transfer equipment, whether they could professionally maintain that equipment, and whether staff are adequately trained in its use. In each case, the response could either be 'yes' or 'no'.

The results for these questions are more usefully broken down by institution type, drawing upon data from the 311 institutions.

	Transfer equipment availability: Yes	Professional maintenance of equipment: Yes	Adequately trained staff: Yes
Broadcasters and Press	50%	40%	69%
Community and Voluntary Organisations	60%	80%	37%
Companies	50%	50%	75%
Individuals	38%	24%	24%
Libraries and Archives	66%	50%	58%
Museums and Galleries	47%	31%	41%
Schools, Colleges and Universities	68%	44%	62%
Societies, Associations and Trusts	60%	40%	55%
Studios and Record Labels	50%	100%	100%

Note: Some of these figures should be interpreted carefully, as the following institution types had few respondents: Community and Voluntary Organisations (10 respondents), Companies (4 respondents), or Studios and Record Labels (2 respondents).

Notwithstanding the note above, it can be seen that Community and Voluntary Organisations, Individuals, and Museums and Galleries are the institution types that experience the least capability to engage in magnetic tape transfers.

Schools, Colleges and Universities, Libraries and Archives, Community and Voluntary Organisations, and Societies, Associations and Trusts appear more likely to have transfer equipment available to them, although not all have the means to maintain them, or the staff training required to effectively manage them. Individuals again fare the worst, as do Museums and Galleries.

4.6 Training and Assistance

To the question 'Would you be ready to assist other institutions' by providing equipment, professional maintenance, or trained staff, 41% of respondents indicated in the positive. To what extent each of these institutions are able to provide direct assistance or guidance in these areas requires considerable follow up, but the significant willingness to share knowledge and resources is clear.

Furthermore, 291 respondents (82%) indicated that they would welcome training for archivists, and 173 respondents (49%) indicated that they would benefit from training for collection managers. This suggests that although the management of collections is an issue, training in digital transfer methods is a more pressing concern.

5. Conclusions and Recommendations

The scope of the Magnetic Tape Alert Project is broad and taps into an equally broad range of preservation concerns. The focus on magnetic tape is pertinent due to the obsolescence warnings familiar to the sector and the approaching Deadline 2025 threshold. However, it is fair to state that the scale of the problem differs between audio and audiovisual formats. Concerns for audio are focused on a relatively limited range of formats, where the problem is one of volume rather than variety; whereas the range of audiovisual magnetic tape carriers are greater, and often require more expensive equipment and very specialist knowledge to use effectively.

Yet, by combining audio and video the MTAP survey cuts through these problems to highlight shared fundamental concerns: lack of training, lack of funding, the scale of collections, and limited time. These concerns primarily relate not to the formats, or necessarily to their content, but to the management of collections. Is there a preservation plan? How to acquire funding for collection management? Where to find equipment? Where to acquire training? Where to source advice for all of these questions?

The MTAP survey is a step toward addressing these problems. By gathering a list of stakeholders from a range of institution types with a broad variety of collections, we can learn about their particular preservation concerns and begin to map a plan to address their specific issues. Moreover, we can establish more comprehensive and inclusive networks of interested parties who may be able to assist each other. Furthermore, by observing which entities respond to the survey we can discover how IASA and UNESCO may improve our communication networks to increase representation among marginalised collection owners and regions throughout the world.

A number of recommendations can be drawn from this survey, which can be used as discussion points for further programme development.

1. Intensification of cooperation on national and regional levels

The 355 respondents to the survey are individuals and institutions that actively participate in audiovisual archiving practices, or wish to do so, and express a desire to reach out to IASA and UNESCO and engage in a broader network of like-minded stakeholders. To this end, cooperation between well organised institutions and small collections on national and regional levels needs to be encouraged and intensified. The next phase of the project should

follow up on the particular concerns respondents have expressed and offer guidance, where possible.

2. Identifying key stakeholders to assist with national and regional surveys

Through the results we can identify regions throughout the world in which we have little reach. These include large portions of Africa, Asia and the Middle East, and specific populous countries, such as China, Russia and India. However, through this survey we have identified colleagues and individuals who reside or operate in such regions who are willing to help us engage with institutions and improve our networks there. It is essential to direct resources toward this end, raising awareness in these locations and identifying and cooperating with any IASA or UNESCO member organisations that operate in these places. Specifically, national UNESCO infrastructures should feel challenged to engage in completing a more global picture of the situation. Through them, national and regional surveys should be undertaken (and collated) to unearth more hidden collections. Indeed, a number of such surveys and projects currently being undertaken around the world were brought to our attention thanks to the reach of the MTAP survey. Furthermore, through coordinated organisation and strength of numbers, such surveys are more likely to spread the message further and attract essential funding to follow up with their findings.

3. Facilitating the development of preservation plans

More resources need to be allocated to helping stakeholders develop a preservation plan tailored to their collections, and assist them in surveying and cataloguing these collections. We received a number of helpful emails from individuals in knowledgeable positions who indicated that they were aware of large numbers of items in collections outside of their own institutions which had not been catalogued, and which therefore will not be submitted to the survey. In one case, an individual representing the national archive of their country indicated that over 400,000 items lay undocumented beyond their reach – a figure forty times larger than the items held by their own institution. Without the ability to catalogue collections to even a basic level, these collections will remain beyond the reach of any survey and – sooner, rather than later – will be lost. Implementing a preservation plan will help make the organisation of these collections more manageable, allowing collection managers to prioritise what parts need urgent attention.

4. Enhancing communication between stakeholders

Mapping communication networks is also a valuable endeavour to understand where regional information nodes may be established for the dissemination of context-specific advice. Identifying existing communication methods within these networks is also essential,

as despite the broad range of channels we employed to distribute the MTAP survey, we nevertheless attracted a majority of responses from European and North American sources. Are there significant international mailing lists that we do not engage with? Are social media groups more active in certain locations than are email mailing lists? Are there other social media platforms that are more popular in certain locations (such as Weibo and WeChat in China, or VKontakte in Russia)? Are there particular blogs and message boards that are a focus for discussions in certain locations? Are there regional conferences or gatherings that we need to develop stronger relationships with? Are there other languages that we could use to further the reach of a survey?

5. Raising awareness and capacity building as key elements for further action

It is essential that the warnings raised by the MTAP survey – and by numerous other projects and programmes over recent years – about the immediate risks faced by magnetic tape media are continued. Awareness of these concerns should be maintained by IASA and UNESCO and our partner organisations, with a focus on enhancing support for capacity building and broadening our networks. UNESCO member states and their governments, in close cooperation with the UNESCO Communication and Information and UNESCO Culture Sectors, can play a prominent role in this regard.

A wealth of details that cannot be summarised in this report can be found in the Comments fields of the survey. Many respondents provide details of the preservation programmes they have in place, the equipment and training that they have available to them, and the particular concerns they and their institutions face. It would not be feasible to analyse these in depth here, but they present a broad range of case studies that can each be fruitfully analysed.

Appendix A

i. Preparation of MTAP at NGO Meetings, 2016–2019

IASA Technical Committee Meetings:

- Washington, 24 September 2016
- Berlin, 16 September 2017
- Accra, 30 September–2 October 2018
- Hilversum, 29 September 2019.

Coordinating Council of the Audiovisual Archives Associations (CCAAA) Annual Meetings:

- Singapore, 10–11 March 2016
- Paris, 9–10 March 2017
- Paris, 8 March 2018

International Audio-Visual Training Summit Meetings:

- Paris, 7 March 2018
- Hilversum, 20 March 2019

ii. Presentations of MTAP at international conferences, 2018–2019

Schüller, Dietrich. *“The Linguistic and Cultural Diversity of Humanity, or Why is UNESCO Concerned about Magnetic Tape?”* AES Conference on Audio Archiving, Preservation and Restoration. US Library of Congress National Audiovisual Conservation Center, Culpeper, Virginia, USA, 28–30 June 2018.

—. *“The Magnetic Tape Alert Project: Safeguarding the documents proper on linguistic and cultural diversity”*. Annual meeting of the International Association of Sound and Audiovisual Carriers (IASA), Accra, Ghana, 1–4 October 2018.

—. *“The Magnetic Tape Alert Project”*. UNESCO Inter-regional Conference for Collaboration on Memory Preservation and Accessibility, Panama City, 24–26 October 2018.

—. *“Disaster Risks Associated with Audiovisual Collections”*. UNESCO Expert Meeting, Global Policy Forum on Disaster Risk Reduction and Management for Sustainable Preservation of Documentary Heritage. Paris, 11 December 2018.

—. *“The Magnetic Tape Alert Project of UNESCO”*. Keynote, Norwegian Triennial Archives Conference, Oslo, 8–9 April 2019.

—. *“Sound recordings. A source critical view on their permanent availability”*. Workshop, Safeguarding Strategies of Sound archives in the Pacific Region, Shanghai, China, 4–6 November 2019.

iii. Significant print and online media publications of MTAP

American Folklore Society. (15 August 2019), *The Magnetic Tape Alert Project Seeks Survey Input from Volunteers*.

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Archives Portal Europe. (27 May 2020), *Magnetic Tape Alert Project: a project by IFAP*.

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AVA_Net. (21 August 2019), *Enquête 'Magnetic Tape Alert Project' van UNESCO*.

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National Diet Library of Japan. (30 July 2019), *UNESCO Information for All Programme and International Audio and Audiovisual Archives Association (IASA) launch Magnetic Tape Alert Project to address long-term storage problems of magnetic tape records*.

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<https://en.unesco.org/news/magnetic-tape-alert-project-supported-ifap>

—. (9 October 2019), *The Magnetic Tape Alert Project is a step to save audio-visual archives*. UNESCO.
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iv. Past surveys

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Warburton, A., B. Declercq and K. Unander, (2018). *Timeline Survey 2018*. FIAT/IFTA.
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v. IASA audiovisual preservation standards publications

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IASA-TC 03, TC 04, and TC 05 are also available in several translations at

www.iasa-web.org/iasa-publications