

‘To take up arms against a sea of troubles’: finding safe havens for the national archives of low-elevation Pacific islands and nations threatened by climate change

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Climate change is not new, and history suggests that low level geographic areas are prone to environmental impacts. The national archives of threatened nations are therefore at risk of damage and/or permanent loss. This article aims to identify many of the issues needing consideration if national archives are moved from potential risk. To achieve the aim, the article discusses the plausibility of transferring national archives from Pacific islands and nations threatened by rising sea levels to safer havens with appropriate cultures, geographies, infrastructures and above all a political will to preserve international archives.

1 Introduction

Throughout human history civilisations have collapsed due to climate change.¹ At present low-elevation Pacific islands and nations are at risk due to rising sea levels, which may be attributable to climate change.² Many capital cities, which for economic reasons are located within the coastal low-lands of such nations, are especially vulnerable.³ These cities and towns often contain the documentary heritage of the nation. Rising sea levels threaten to literally wash away these nationally valuable records. As a result many archival collections may require preventative steps to be taken to ensure their ongoing preservation.

While a number of programs currently exist that can protect the archives of nations outside their original national borders, for example the United Nations Educational Scientific and Cultural Organization (UNESCO) Memory of the World program, the work of the Pacific Manuscripts Bureau at the Australian National University, and the copying of records and storage of copies in other national archival institutions, we believe that one solution has not been considered to date. The paper describes the results of our initial research and attempts to establish if the issue we have identified has been previously addressed. It also attempts to spell out a path for future research into the issue of archives at risk from climate change.⁴ In this article we shall discuss the issues and problems that might arise if the decision were taken to relocate the archival records of one nation state to another nation state to ensure their long-term preservation.

This solution differs to those described above, as they all concentrate on the preservation of copies of records, the originals of which are left in situ within the national boundaries of the creating nation. Some have argued that developed nations owe ethical responsibility towards the public health of those under threat.⁵ Here we suggest that developed nations on higher ground owe similar ethical responsibility towards the cultural heritage, and more specifically the national archives, of these threatened nations.

When considering the issues of global warming, sea levels and archives, our specific focus has been the impacts upon archives, archivists and record managers in the Pacific region. This focus is partly a consequence of geography. It is also inspired by the fact that global warming and

rising sea levels are likely to exert significant impacts upon the poorer, low-elevation nations that lack the resources and technical infrastructure to manage these impacts.

Another reason for our focus on the Pacific region is that the problems facing archivists in the region are well documented.⁶ In considering this region our current focus is upon records written in English. This limitation is imposed by our inability to read records in other languages, however we believe that lessons from our work can be applied more widely.

We are also considering limiting our research and attention to the less wealthy nations of the region, on the basis that their need is the greatest. Currently, some islands in the Pacific region have close political and economic ties due to their status as overseas territories of wealthy developed nations, for example the relationships between American Samoa, French Polynesia, Guam, New Caledonia and the United States of America and France. Where such a relationship exists we surmise that it will enable more effective assistance with regard to archives threatened by rising sea levels.

For the purposes of our research we take it as axiomatic that global warming is in fact causing rising sea levels. We also assume that these rising sea levels may in turn require some low-elevation islands and nations in the Pacific region to evacuate their populations and their archives.

To achieve its aim, this article covers the issues associated with identifying, prioritising and understanding the at-risk nations, followed by issues associated with identifying safe haven nations.

2 Identifying, prioritising and understanding at-risk islands and nations

A first task, then, is to identify the at-risk islands and nations. A related task will be to identify their cultural, professional and technical capabilities in order to ascertain the plausibility and resource requirements of transferring threatened archives to safe havens.

Following a review of the literature, one archival research program directly relating to climate change has been identified. The Collections Care Department of the National Archives (UK) is working with Tate Britain and the University College London's Centre for Sustainable Heritage,⁷ to support a research cluster: Environmental Guidelines: Opportunities and Risks (EGOR). According to its website the program is investigating:

the implications for current environmental guidelines, standards and targets for the conservation of cultural heritage in a changing climate, including the associated risks and uncertainties facing the sector.⁸

The work to date suggests that the focus of the research cluster is on the impact of climate change upon managing archives and cultural heritage in situ in the United Kingdom, rather than the relocation of archives, which is the focus of our research. Our findings suggest that similar work needs to be undertaken to plan the safekeeping of national archives across the Pacific region.

Islands and nations across the Pacific region are becoming increasingly aware and vocal about the impacts of climate change upon them. We discovered evidence of this awareness in the National Adaptation Programs of Action for Tuvalu, Kiribati, Samoa and the Solomon Islands. These programs were prepared as part of these nations' contributions to the United Nations Framework Convention on Climate Change.⁹

A number of common threads were evident in the program reports. These include awareness of the likely impacts of climate change, concern about the impact of climate change on water quality and availability, impacts upon agriculture and concerns that rising sea levels may lead to the eventual swamping of low-lying islands and nations.

Pacific islands and nations also recognise that their ability to reduce climate change risks will require adaptations to their national economies, political institutions and local communities. Examples of adaptive actions being taken include the move to sustainable electricity generation schemes as opposed to the use of diesel-powered generation plants and the move to include adaptation to climate change within national economic planning.

These actions reflect a change to the initial adaption practices that attempted to protect existing physical boundaries through the installation of barriers to rising sea levels, for example, rock and concrete walls.¹⁰

In the event that all other protection and adaptation methods fail, Pacific islands and nations are aware of the option of retreating from threatened land masses. An example of this can be seen in the widely reported relocation of the population of the Carteret Islands due to increasing sea levels.

There is a relatively straightforward process ahead of mapping the location of existing national archives in low elevation nations against the predictions of climate change models. This should enable archivists, economists and geographers to compile a prioritised list of at-risk islands and nations. Sensitivity will be required when making decisions about including any nations or islands on such a list and their relative positions in the list.

Prioritising this list will require an economic model to calculate the short, medium and long-term costs of transferring, storing and returning the archives. Such a model should include the training required for archivists and records managers in the originating island or nation to arrange and describe the records sufficiently for the needs of the safe haven. As we will discuss below, it also needs to include answers to similar questions for the safe havens.

Another complexity will be possible language barriers between the creating island or nation and any potential safe haven. Records in the Pacific region can be created in English, French, German or Dutch as well as the indigenous language or languages of the originating island or nation – for example, Samoan. As a result, the languages of the record creators as reflected in their records need to be considered and training costs need to be calculated. This will need to include consideration both for those wishing to access records located in a safe haven which speaks another language and for those wishing to manage any relocated records written in another language.

However, far more complicated economic questions and issues lie ahead that should affect any project plan and its risk register. For

example, consider an at-risk island or nation that wishes to transport its archives in the short term and then continue to manage them in the medium or long term? Does it make economic sense for a safe haven to act as a short-term storage provider and then return the archives to the original location once the record creators are able to store the archives at less risk-prone locations? Who will decide when the records can be returned to safer ground? These are policy questions that require predictive models encompassing economic, geographic and political variables.

Another complicating political factor for such a model concerns the risks that a rise in sea level will cause changes of governments or, at the very least, changes of priorities from long-term planning to short-term fire-fighting. A closely related issue concerns the national security implications for the at-risk islands or nations, especially in the event of a civil or international war.

When calculating the risks associated with resistance to change in the at-risk island or nation it is important to include issues of cultural sensitivity and difference. Archivists and recordkeeping professionals will need to be sensitive to the possibility of behaving in a fashion that is seen as cultural colonialism or a form of paternalism. We do not want to be accused of, or be seen as, making decisions across a region of nations with pre-existing inter-nation tensions. Nor do we wish to exacerbate any existing suspicions about the behaviour and/or motives of richer developed nations.

The model for international cooperation that seems most likely to achieve success is one based on the joint efforts of equals. While it is true that some nations in the Pacific region have greater financial, technical and geographic resources (for example Australia, New Zealand, the United States of America, and so on) these nations cannot in any way assume a role of dictating the approach to be taken when protecting archives at risk. Help will have to be offered to those islands and nations whose archives are at risk, rather than being in any way forced upon them.

The secret and sacred references to Aboriginal people held in records in Australian archives provide a model of the feelings of an at-risk population and whether they will be comfortable with relocating their records to another nation. Another example may be the manner in which

Maori sensitivities concerning official records are managed in New Zealand. Alternatively, archivists in safe havens like Australia would be well advised to consider their own reaction if it were proposed to relocate Australian archives to Washington DC, for example. An awareness of their own likely reaction to such a proposal could be used as a guide to managing behaviours, expectations and reactions in managing the relocation of archives of Pacific islands and nations.

In sum, listing at-risk islands and nations is a fairly straightforward geographical task. However, creating a list of at-risk islands and nations that will benefit from whatever limited funds and other resources may be available is a more complicated geopolitical task.

3 Identifying safe havens: resources

The next task is to identify candidates for safe havens offering a combination of higher ground and appropriate socio-technical infrastructure. To identify such candidates for safe havens, three questions need to be raised and resolved on the subject of resources. The first question is where will any relocated archives need to be relocated? Since rising sea levels will be the root cause of the evacuation, any recipient nations will need sufficient high ground with appropriate infrastructure to preserve the archives above raised sea levels.

Secondly, which nations will be willing and able to pay for the relocation of threatened archives? The recipient nations will need to invest considerable resources to manage an increased archival collection. Forces such as the unforeseen global financial crisis and the costs of carbon emissions reduction may mean that nations who want to do the right thing for their low-elevation neighbours may simply be unable to do so.

The third question is, which nations have sufficient capacity of archivists to take on the archival needs of low-elevation islands and nations? The recipient nations will require an archival profession with sufficient capacity and professionalism to manage the relocated records now and into the future.

4 Identifying safe havens: legal and professional jurisdiction

Assuming that nations with sufficient resources and the political will to intervene can be found, a second part of identifying potential safe havens involves consideration of legal and professional jurisdictions. The process of relocating a national archival collection from a low-elevation island or nation to a resource-rich safe haven will require a transfer of the legal and professional jurisdictions of the archival collection from one nation to another. This transfer of legal and professional jurisdictions for an archival collection raises a raft of questions. This transfer will be more complicated if the originating nation and its government has ceased to exist due to the complete submergence of its territory by rising sea levels.

Among these questions the following will need to be addressed. Do the islands or nations at risk have cultures and laws which allow their archival records to be stored elsewhere? Could, for example, historical tensions between former colonies and colonisers threaten this process? Could differences in national governance systems become sources of future conflict or confusion? Can recipient nations legally accept custodianship of records from another country? Could a transfer agreement remain valid if the originating country ceases to exist due to flooding? Do freedom of information and personal privacy laws exist in the originating countries and are these compatible with those of any potential safe havens?

Moreover, there are ethical questions for the safe havens that might have legitimate qualms about returning sensitive records to new regimes with suspect policies on human rights. Such issues need to be planned for in order to forestall legal conflicts well before control of archives is potentially lost by the at-risk nations.

5 Specific issues for archivists

In this section we will survey similar questions relating to various parts of the archival and records management profession including: access, arrangement and description, disaster management, disposal, appraisal, preservation and repository management.

However, lest we put the cart before the horse, the whole proposed endeavour relies on finding satisfactory answers to three basic economic questions: (1) who will pay for the cost of relocating the records to their new homes?; (2) who will pay for storage of the relocated archives?; and (3) will there be a difference between costs or charges for temporary or permanent storage of archives?

If policy makers in safe havens are to even consider these questions, then we believe they require a broad understanding from the archives and records management communities of the economic, political and technical issues and risks.

5.1 Access

When considering access a number of questions will need to be addressed. Whose access regime will apply? Will it be that of the originating island or nation or that of the safe haven? Where would the records be accessed: in an archival institution or company premises within the safe haven, or at the embassy or consulate (if one exists) of the originating island or nation (thus allowing their laws to be applied to the records in the embassy or consulate)? Issues of cultural sensitivity and difference will need to be addressed. An example might be to follow a path similar to the management of secret or sacred references to Aboriginal people in records within Australian archival institutions. How would issues of access to the culturally sensitive material of another island or nation be managed within any online access regime? How will the ability of citizens, relocated from a swamped island or nation state, to travel to and access records be addressed? Will access be provided online and would this be possible for displaced persons of a former island or nation?

5.2 Arrangement and description

Having agreed to store any relocated archives, consideration would have to be given to the arrangement and description of the records in their new home. Would it be possible, and desirable, to integrate any arrangement and description practices of the originating country into those of the recipient?

How would any descriptive data about the relocated records be integrated into the increasingly common and increasingly sophisticated online archival systems of a recipient country? As an example, State Records of South Australia has experienced difficulties integrating the arrangement and descriptive data for records transferred to it by the National Archives of Australia. It is conceivable that even greater problems could arise when records are transferred from islands or nations with less technically and professionally sophisticated archival arrangement and description practices.

Who would be the successor agency if the original island or nation state has ceased to exist? Does the recipient nation become the de-facto successor agency or is this a role to be undertaken by an impartial third party (perhaps the United Nations Educational, Scientific and Cultural Organization (UNESCO) in some form)? If the originating records creators were to continue to maintain an embassy or consulate within the borders of the recipient nation, could this embassy or consulate be designated as a continuing form of the originating country?

5.3 Disaster management

Having successfully moved the records into storage with a recipient nation's archive, consideration needs to be given to issues that arise for their long-term management. In the event that a disaster strikes the recipient archive (by which we mean 'normal' disasters rather than further flooding impacts caused by continued rising sea levels) how will salvage priorities be determined? Whose records get saved first, those of the originating island or nation, or those of the recipient? On a more prosaic level, who would pay for any disaster recovery work that would affect relocated records?

5.4 Disposal

As relocated records age it may become necessary to reconsider their eventual disposal status, especially if their relocation took place in a rush, with a primary focus on saving the records from an initial drowning. Should it become necessary to re-examine the disposal status of any relocated records the question will arise of who will authorise disposal

of any relocated records? Whose appraisal criteria will be applied to the records in order to make any new disposal determinations? If records are appraised in advance of their relocation and deemed, by mutual consent, to be temporary records, how and where would these records be stored? If the recipient jurisdiction required that the records be stored with a commercial storage provider, who would pay for these storage costs?

5.5 Appraisal

Similar issues arise when considering the appraisal of relocated records. Will it be possible [and necessary] to align the appraisal criteria of the recipient country and that of the originating island or nation? Can any original appraisal criteria be equated with those in the recipient nation? It is possible that the recipient may be required to store relocated records on a long-term basis that would be deemed as temporary under their own national appraisal criteria.

5.6 Preservation

Given the focus of national archival bodies on the long-term storage of records, issues of the preservation of any relocated records may well arise. This is especially so if the storage conditions for the records in their originating island or nation were less than ideal. Should extensive conservation work become necessary on relocated records, who will pay for this work? Given that modern papers are a relatively recent form of recordkeeping medium it is probable that relocated records may contain material in widely differing formats. Will the recipient nation have the technical expertise to conserve and preserve these formats of records? Will significant alterations be required to the standardised storage facilities of the recipient nation to ensure the ongoing preservation of records in differing formats?

5.7 Repository management

Lastly, the relocation of records to a recipient nation will have an impact upon the already, usually, limited storage facilities within that nation. Questions to be considered here include: is there

sufficient room in repositories of the recipient country for a possibly large influx of new records at short notice?; who would pay for any new repositories that may be required to be built?; is it advisable to relocate records to suit local groupings of nationalities in a geographic section of a particular nation? For example, if the largest relocated population lived in Melbourne, do the records get stored in Melbourne to allow easiest access to their relocated archives? What involvement, if any, would the originating island or nation have in any decisions to relocate their archives from the first place of deposit in the recipient country?

6 Work to date

To date we have found some evidence of work by archivists and those in related fields that provide some clues for future research. If we follow the sequence of issues we have just outlined then we can report the following:

6.1 Governance regime

Clearly the resolution of governance issues are vital to the orderly relocation between islands and nation states of any at-risk archives. Fortunately this field is not completely barren. UNESCO has undertaken research concerning the issues that arise when archives are relocated between nation states. This work culminated in a report in 1978 that advocates the use of bi-lateral and multi-lateral agreements between states to resolve the issues of conflicting rights by nation states to archives.¹¹

Model bi-lateral and multi-lateral agreements and conventions concerning the transfer of archives between nation states have been developed for UNESCO, based on the earlier work in 1976 and 1978.¹²

Finally, the Vienna Convention on Succession of States in Respect of State Property, Archives and Debts was developed by the United Nations.¹³ While this convention has never been approved and adopted it does exist in draft form and provides a useful starting point for further research.

All of these documents provide useful guidance for our research but they have two fundamental flaws. Firstly, none of them make any mention of global warming (unsurprisingly as this issue was not commonly debated at that time). Secondly, they are predicated on the assumption that if a nation state ceases to exist (due to war, de-colonisation or other effects) that one or more successor nation states will come into being as a successor party to any agreement. As we mentioned earlier one of our assumptions is that rising sea levels will swamp an existing low-lying island or nation state thus causing it to cease to exist. In such a case we believe the current work from the United Nations will be insufficient as there could be no successor island or nation state.

6.2 Access

Maurice Line raises the prospect of libraries having to restrict the current universal right of users to visit a library for research purposes when he suggests that:

To avoid unstoppable and catastrophic climate change severe restrictions will have to be imposed on travel, especially by air. Proof will be required of the need to fly anywhere ... Access to documents will be dramatically affected. The humanist scholar's traditional trip to national and other research libraries in other countries to consult documents will cease to be an automatic right. The loan of books between countries will be much slower.¹⁴

Line goes on to suggest that access to documents via electronic means may replace physical access by the researcher. Clearly this issue of access has similar application to the work of archives and archivists.

6.3 Other aspects of archival administration

To date we have not found any evidence of work in the other areas of archival administration that are directly relevant to our research. However, we have identified one issue that has received considerable attention concerning archives and archivists in the Pacific region and that is the need for professional education and development for archival staff outside of Australia and New Zealand.

As we delve further into the question of archival training it becomes clear that most of the islands or nations likely to be badly affected have few, if any, archival training programs. This lack of training is an issue that has been exercising the minds and attention of archivists as far back as the work of Cook in 1979 for UNESCO. More recently we have seen the work by Laura Millar and others for the International Records Management Trust,¹⁵ the work of the University of California, Los Angeles and Monash University,¹⁶ and many others in between. The regrettably common thread to the work in this area has been the lack of training opportunities for archivists and records managers in the Pacific, and the prohibitive cost of the training that is available.

Given the complex issues that the relocation of archives at risk raise it is clear that both the records creators (or their archivists) and the recipient nation state will require significant professional skills to manage these issues successfully. It is to be hoped that the work currently underway to provide training to archivists in the Pacific region will allow this to happen.

7 Conclusion

It is clear, from even this preliminary piece of work, that further research and study will be required to solve the issues we have outlined above. A next step is to investigate the known change in climate across the Pacific region, to research projections for future climate change impacts and to establish the geography of islands and nations in the Pacific region. Once this data has been compiled a selection of those islands or nations for further study and investigation can be made. Issues such as national political systems, legal systems, existing international cooperative arrangements and cultural concerns of any islands or nations involved will need to be addressed.

Over the past quarter of a century, issues such as global warming and rising sea levels have become pressing issues for a broad range of professional bodies. However, we can find no evidence, with the exception of the UK case mentioned above, that archivists and their professional bodies have widely considered these issues as central to their working futures. Here, we have outlined how we believe global warming and rising sea levels could impact upon the archival profession in the Pacific region. Despite the resources implications brought about by

other pressing issues, such as the world economy and reducing carbon emissions, we suggest that safeguarding archives for future generations of citizens of the Pacific region is a task that the developed nations of the region and in particular their archivists have an ethical duty to undertake.

Endnotes

¹ J Diamond, *Collapse: How Societies Choose to Fail or Succeed*, New York, Viking Adult, 2005.

² RJ Nicholls and RSJ Tol, 'Impacts and responses to sea-level rise: a global analysis of the SRES scenarios over the twenty-first century', *Philosophical Transactions of the Royal Society*, no. 364, 2006, pp. 1073–95.

³ G McGranahan, 'The rising tide: assessing the risks of climate change and human settlements in low elevation coastal zones', *Environment and Urbanization*, vol. 19, no. 1, 2007, pp. 17–37.

⁴ The authors would like to acknowledge the assistance of Dr Jo Hanisch at the University of South Australia, Dr Marian Whitaker at Flinders University and from Helen Onopko in completing and polishing this article. Support was also received from staff at State Records of South Australia whilst developing and completing the article, which is an expanded version of papers delivered at the Records Management Association of Australia conference in Adelaide (September 2009) and the Australian Society of Archivists conference in Brisbane (October 2009).

⁵ H Frumkin, J Hess, G Luber, J Malilay and M McGeehin, 'Climate change: The public health response', *American Journal of Public Health*, no. 98, 2008, pp. 435–45.

⁶ K Anderson, M Crockett and L Millar, 'Distance Education for Records and Archives Management in Pacific Island Nations: A report prepared for PARBICA', International Records Management Trust, 2002.

⁷ The presence of the Centre for Sustainable Heritage in this research cluster is not surprising when one recalls the work by the Centre in its report 'Climate Change and the Historic Environment'. This report describes the likely impact of global warming, rising sea levels and changing weather patterns on the historic environment in the United Kingdom. Whilst this report is interesting its focus on the United Kingdom is not a great help with the issues we are considering. It does however indicate that practical work focused on similar issues in our region can be undertaken.

⁸ See project description at <<http://www.nationalarchives.gov.uk/preservation/research/egor.htm>>, accessed 20 April 2010.

⁹ United Nations Framework Convention on Climate Change, *Republic of Kiribati, National Adaptation Program of Action (NAPA)*, January 2007, available at <<http://unfccc.int/resource/docs/napa/kir01.pdf>>, accessed 29 March 2010, United Nations Framework Convention on Climate Change, *Tuvalu's National Adaptation Programme of Action*, May 2007, available at <<http://unfccc.int/resource/docs/napa/tuv01.pdf>>, accessed 29 March 2010, United Nations Framework Convention on Climate Change, *National Adaptation Programme of Action (NAPA), Samoa*, December 2005, available at <<http://unfccc.int/resource/docs/napa/sam01.pdf>>, accessed 2 April 2010, United Nations Framework Convention on Climate Change, *Solomon Islands, National Adaptation Programmes of Action*, November 2008, available at <<http://unfccc.int/resource/docs/napa/slb01.pdf>>, accessed 2 April 2010.

¹⁰ G Sen, 'Climate Change in the Pacific Islands: Impacts and Scope for Action Working Paper 1', available at <http://www.spc.int/lrd/Climate_change/Publications/CChangePacific_Sem_GTZ08.pdf>, accessed 18 April 2010.

¹¹ UNESCO, General Conference, Nineteenth Session, Nairobi, 1976, *Report by the Director-General on the Study on the Possibility of Transferring Documents from Archives constituted within the Territory of other Countries or relating to Their History, within the Framework of Bilateral Agreements*, 19 C/94, 6 August 1976, Paris, UNESCO, 1976. See also UNESCO, General Conference, Twentieth Session, Paris, 1978, *Report of the Director-General on the Study regarding Problems involved in the Transfer of Documents from Archives in the Territory of Certain Countries to the Country of their origin*, 20 C/102, 26 August 1978, Paris, UNESCO, 1978.

¹² C Kecskemeti and E Van Laar, *Model Bilateral and Multilateral Agreements and Conventions Concerning the Transfer of Archives*, PGI-81/WS/3, Paris, UNESCO, 1981.

¹³ United Nations, Vienna Convention on Succession of States in Respect of State Property, Archives and Debts, 8 April 1983, available at <http://untreaty.un.org/ilc/texts/instruments/english/conventions/3_3_1983.pdf>, accessed 20 April 2010.

¹⁴ M Line, 'Global Warming and National Libraries', *Alexandria*, vol 18, no 3, pp. 3–4.

¹⁵ L Millar, 'Education and Training for Records and Archives Management in Pacific Island Nations: A needs assessment and report prepared for PARBICA', International Records Management Trust, 2003.

¹⁶ A Gilliland, S McKemmish, K White, L Yang and A Lau, 'Pluralizing the Archival Paradigm: Can Archival Education in the Pacific Rim Communities Address the Challenge?', *The American Archivist*, vol. 71, no. 2, Fall/Winter 2008, pp. 87–117.