

# OFFICE PROCESSING OF GEOGRAPHICAL NAMES

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## 1. Overview

One of the major responsibilities of a national names authority is to act as a focus of geographical names activity. As such, the support office for the board is required to process all the names information, to keep comprehensive records of ongoing activities, and to make sure that the data are available for wide government and public distribution.

Particularly in the past, records were often kept in large ledgers, on file cards, and in various forms of hand-written documents. Today, considerably more emphasis is put on word processing, digital databases and public use through easily accessible web sites.

It is not necessarily the type of data required for geographical names records that has changed, but rather the methods of processing, storing and distributing the data that are being transformed as technology moves forward. Nevertheless, the key qualities of accurate and carefully created records are just as important. Remember that the usefulness of records and a database can only be as good as the quality of data entered. Bear in mind, too, that it is always better to create the records more slowly, but to get them right the first time. Correcting records later can often be a difficult and painstaking task ... as errors can be elusive. Proliferation of errors can produce a data set that is unreliable and of dubious value.

## 2. “Office processing” of geographical names

What is included under this umbrella title? Likely different people would provide different answers to this question. Also the type of structure of a national names authority will affect what “office processing” may be in any given circumstances.

For the general purpose of discussion here, I am considering the subject to be the administration of geographical names in a government setting involved with the standardization of toponymy. And for this purpose, I am breaking down processing into various phases:

1. Gathering of names information
2. Authorizing the toponyms
3. Storing the data and maintaining records
4. Disseminating the data

I am visualizing these activities being undertaken by a secretariat or support office for a names board, although in reality the activities may be split up among different groups of individuals – in different parts of the country, or perhaps within different branches or departments of government in the same general location.

### 2.1 *Gathering of names information*

Identification and recording of the written forms of geographical names and their application to particular features create the basis of the names standardization process. This information should be collected in a consistent way so that the records can be presented to the national names authority for decision purposes. Regardless of whether the information is recorded on cards, maps, paper forms or in a computer, the record keeping is a major part of the office time and effort. Information handling has to be done thoroughly and carefully, so the approach should be carefully thought through before embarking on a system which might be unsuitable or too complicated for the resources available for maintenance.

The names information can be collected from various sources, including:

- Existing documents ... for example, existing maps and office records, archival records, publications (e.g. geographical/historical reports)
- Names from other government departments
- Submissions from government offices or the public
- By telephone or written postal surveys to enquire about particular names
- Field investigation ... where names information is systematically collected by oral enquiry from local residents

#### (a) Existing documents

When a board is starting up, it is often a suitable approach to consider for approval the names that already exist on published national topographic maps and hydrographic charts. Clearly this approach must be treated with care if the latest maps are very old or if the names do not conform to established local usage or acceptable orthographic criteria.

Before a board is established, a considerable amount of office records may exist in paper form. These

records may provide useful information on names being brought forward for board recognition.

Archival and library reference material may also be a valuable source of names, to supplement that collected from the public.

(b) Names from other government departments

It may be appropriate for names used by municipal governments, or by census, statistics, national parks or postal authorities to be gathered for acceptance and entry into the records of the board. These names will then be integrated with toponymic data available for mapping and other uses.

(c) Submissions of names

In some countries, names boards consider names proposals received from the public. Such submissions might be for features which have no names shown on a map, or to challenge the accuracy of names found on already published maps. To streamline this procedure, most board offices have created standard forms which can be supplied to the public for this purpose. Such forms should be devised to obtain clear information about the name proposed, how long it may have been in local use, any information about the meaning or origin of the name, its application to a geographical feature, whether other names are known, etc.

(d) Name surveys – telephone or postal

To follow up on name submissions, some boards make use of information forms that are submitted to regional offices and local individuals to verify names information. Some will also use phone calls to obtain information that might support or refute names being submitted. In general, field surveys are expensive propositions, and other ways of gathering and verifying names in established local use have had to be found.

(e) Field investigation

Fieldwork by people knowledgeable of the area and of the languages involved is considered the ideal method of obtaining information about the local use of geographical names. Such an approach will reveal conflicts between official published names and local oral usage. It can also reveal written forms of names used on signs and in local records.

Field investigation is an expensive proposition, but in some cases cooperation may be possible with topographic mapping personnel, regional office staff, or local councils that are operating in the area. Univer-

sity and college projects may also be able to assist with this work.

The details of field investigation are dealt with elsewhere in this course; see also the work of Donald Orth in *World Cartography* (1990). But in relation to office treatment, it should be noted here that pre-field preparation is extremely important and can assist the field work by – identifying local informants, local leaders, and interpreters; noting protocol needed; assembling the appropriate maps, air photos, forms and stationery needed; identifying any particular names that require verification of conflicting information found in document research; and planning logistics.

When the field investigations have been completed the results will be an organized collection of annotated field maps, report sheets, and other support material, recording geographical names of a specific area. Office staff will then need to process the data, reviewing it for completeness and accuracy.

If the board has the final decisions on names, any steps that need to be taken to allow for public review will be done at this stage, before material is prepared and presented to the board for official adoption.

## 2.2 Authorizing the toponyms

For the toponymic information to be presented to the board, documents have to be prepared in a consistent way to show the information collected on the names and their applications. Variant names, conflicting opinions, etc. should be included, so that board members have a full picture in front of them. Written forms of names will need careful preparation, particularly if from oral tradition in languages with no well-established writing system.

It is quite likely that name records are already entered into a database before they are sent to a board. The coding in one of the data fields allows the operators to know what stage the name has reached.

If the board recommends actions to the departmental minister, office staff must take care of the next steps in the processing. Perhaps this is only presentation to the minister for signature. However, it might first include other steps..... e.g. presentation to a local politician's office, posting in newspaper/community office for confirmation.

In some cases, publication in a gazette or similar legal document is then required for final acceptance of the name for general use.

Even though most records are today being kept as digital files, it is widely considered that printed copies of names decisions, with original signatures, should be kept on file for future reference. These “decision lists” should as a minimum contain the geographical name (and any variants to be noted), a short statement of the location, and coordinates (latitude and longitude, preferably to the second). The status of a name should be noted – e.g. approved, rescinded, spelling changed, etc. Usually names will be grouped by map sheets of a selected scale (e.g. 1: 50,000), and the list will be signed and dated by the Chair of the board, the Minister, or whoever has this responsibility.

Generally speaking geographical names boards keep away from standardizing pronunciation. A general pronunciation guide can certainly be a useful tool, particularly for media use, and for those unfamiliar with the language. However, in many countries this is outside the jurisdiction of the board and not considered a part of the names standardization process.

### 2.3 Storing the data and maintaining the records

Generally today, records will be maintained in some sort of database or spreadsheet format in a computer environment. Of course, systems may be more sophisticated with the toponyms as a GIS layer, or the database being maintained on the web with direct regional input. Even if records are still maintained on cards, some decisions have to be made on what fields should be gathered and stored for each name.

Digital databases may be created from existing handwritten card records, from various types of lists, by digitising maps at one or more scales, or by entering names newly collected from fieldwork. When entering from card records, many decisions will need to be made along the way, as likely the record-keeping was not as rigorous as is needed to complete the data fields of a digital data base.

The fields of data for each geographical name will vary considerably from country to country according to their needs. However, there are some core fields of data that are required. The list below must, of course, be modified for individual needs, but is based largely on the Canadian Geographical Names Data Base and the recently created Sistema de Gerência de Topônimos of Mozambique.

1. Toponym  
For names that have been standardized they should be entered with the correct capitalization, hyphens, diacritics, etc. Only if abbreviations are a standardized part of the name, should they be entered this way (e.g. St. John’s, Newfoundland).
  - a) Natural order (as it would be found on a map or text)e.g. Lake Ontario
  - b) Inverted order (as it would be needed for an alphabetical look-up list)e.g. Ontario, Lake
2. Feature type  
e.g. river, mountain, populated place .... (or a more detailed breakdown)  
The feature type is important, particularly where ambiguity exists. For example, are Baker Lake and Mount Pearl (in Canada) physical features or populated places?
3. Administrative units in which the feature is located
  - a) First level of administrative unit below the country itself.  
(e.g. province, state, etc.)
  - b) Second level (... and third level might also be useful)
4. Geographical coordinates
  - a) Latitude (degrees, minutes, seconds)
  - b) Longitude (degrees, minutes, seconds)

If a feature such as a river crosses administrative boundaries, it is useful to be able to indicate more than one administrative unit in the name record.

Although other grid systems may be in use, a mathematical algorithm should allow their conversion to systems, which can be joined with data from other countries. Also, location north or south of the equator, and east or west of the prime meridian may need including if there is possible confusion within the country. For use of the data outside the country the N, S, E or W designator will need to be added in some suitable way.

Coordinates should be read as accurately as possible from large-scale maps or possibly with a GPS.

Even if the extent of a feature is being identified on a digital graphic system, it is still useful to have one set of reference coordinates. For areal features (e.g. lakes) these are selected at the centre; for flowing water features the mouth is used (and headwater coordinates could be recorded as a secondary value); for urban areas, the central core is usually the value recorded. The coordinates of some features, such as

glaciers, canals, multiple features (e.g. an island group, twin peaks) may need special consideration.

5. Location narrative

This is a brief statement relating the feature to towns or other major features (e.g. “Flows southeast in Blue River”, or “North of Pembina”).

6. Map sheets

This could be one map sheet that corresponds with the coordinates of the feature. There could also be several map sheets on which the feature is located (e.g. Mackenzie River). It might be separate fields for different scales (e.g. 1:50,000; 1:250,000)

7. Variant names

Other names which should be cross-referenced to the main toponym. For example, historical names, other language forms, other spelling variations.

8. Status

At a minimum, this could indicate whether the name has approved status, whether it had approved status in the past, or whether it is unapproved. The field can be expanded to indicate many other levels of information (e.g. name change, one of multiple official names, rescinded by the board). This same field, or a similar one, could also be used to show what stage the name had reached in processing (e.g. ready for submission to the board, waiting for signature of the minister).

9. Date of approval

Year, month, day that the name acquired approved status. (If the date of board recommendation is different from the approval date, this could be added as another field.)

10. Record identifier

In a digital system each record will require its own unique identification – perhaps an alpha field, or perhaps a number field. In a strictly toponymic database, the record identifier will be attached to each name. However, in a GIS system a record identifier might be associated with the feature itself, with the name record as an attribute of this. (Using both name and feature identifiers is also a possibility.)

Other fields can be added, to show for example: the geodetic reference of map bases used, the language of the name, its meaning and origin, its legal status, sources of data, etc. Possibly older card records can be scanned and added as fields of information on the name record. If more than one board is responsible for names approval, a field may be necessary to indicate approving authority.

Some toponymic databases may include other information, such as population data and altitude. However, one should bear in mind that clients expect data to be up to date, and information for which one does not have responsibility requires more resources to keep accurate. In today’s digital environment, links to other databases responsible for such information, may be a better option.

On any digital data base, other fields will be created to allow for identification of the operator who has entered or modified records and when it was done, explanations of any codes used in the different data fields, etc.

From the viewpoint of data exchange, it is important that the database be set up to follow the appropriate ISO standards for the languages in question. Even so, there may be characters that cannot be represented. For example, in Canada in the Athapaskan languages there are “hard-to-construct” characters that cannot currently be entered into the national database following any national or international standards. At present a list of substitution characters is maintained to cover such name entries.

From the perspective of office processing, a comprehensive “Records Manual” needs to be available to staff members inputting data. It will indicate how to format data for entry or modification in the different fields. The better the instructions and the more familiar the staff are with the data base, the more accurate will be the records created ... and it is the records themselves that are the essential part, that will be accessed and used over and over again.

In addition to the alphanumeric data of the toponyms, it is very important that the extents of the features named (i.e. the applications) be maintained in a graphic form. This might be on reference copies of paper maps, or in today’s increasingly digital world limits may be included in digital map files.

#### 2.4 Dissemination of the data

As we know, geographical names are an important aspect of communication ... important to each of us. They help us to identify our landscape and form part of our perception of our surroundings. In the past, explorers and settlers have needed names to communicate their whereabouts, and to “tame” the unknown lands through which they travelled. Today names on maps may be part of our “dreams” of far-off lands, yet at the same time they link us to the reality of today’s world events.

Names in our locality are familiar to us, and we expect to see them correctly represented on maps. Their incorrect

representation – misplaced or misspelled – may immediately put in question the quality of the map. As a result, names can be considered as one of the key elements in ascertaining the accuracy and usefulness of published maps and charts.

As names are vital elements of communication, it is important that names authorities disseminate the information that they have been gathering, documenting and approving as official names in the areas for which they are responsible. This information is of little value if it is buried in record files and not available for general use. It is not in the interest of any names board for their records to be the “best kept secret”! “Office processing” includes disseminating the names data and information about the names board and its activities.

In the process of developing its first Strategic Plan, the Geographical Names Board of Canada (at the time, 1997, the Canadian Permanent Committee on Geographical Names) noted the dissemination of information as one of its main responsibilities and a core area of activity. In addition to the geographical names themselves, distribution includes information about the Board, its principles, standards, and procedures.

Figure 1 shows some elements of dissemination of geographical names. For purposes of discussion, these can be divided into eight groups.

#### 2.4.1 Official government maps, private sector maps, gazetteers and gazetteer atlases

Maps and gazetteers are a fundamental way of making correct and up-to-date geographical names information available to the general public. Such hard copy products should reflect the standardized names of the national names authorities, as they are prime ways of distributing standardized names nationally and internationally.

Gazetteers, according to the 2002 United Nations *Glossary of terms used in the standardization of geographical names*, can be either:

- a *gazetteer* ... “list of toponyms arranged in alphabetic or other sequential order, with an indication of their location and preferably including variant names, types of topographic feature and other defining or descriptive information”, or

- an *index gazetteer* ... “an ordered list of toponyms with or without additional data, serving as a guide to the source in which they appear – example: index gazetteer appended to an atlas”.

Gazetteers provide reference tools and look-up lists of names of places and geographical features, so that correct spelling can be determined and each place or feature can be properly located. For lists in the Roman alphabet, the alphabetical arrangement of entries makes for the easiest reference use. Gazetteers can cover regions or complete countries; they can contain all named features, or selected ones, for example only populated places, or just mountain names.

In a gazetteer, one would expect to find the names currently approved (including reference to more than one name if that is applicable). It is also useful to include names that have recently been changed, with cross-referencing to the names that have replaced them.

Resolutions of the United Nations Conferences on the Standardization of Geographical Names have addressed the need for national gazetteers, and since 1967, nations have been strongly urged to prepare such documents. In addition, the resolutions address the main fields of data that should be provided for each entry: toponym, feature type, geographical reference (coordinates), administrative or regional area, map/chart on which the feature lies.

In some countries the cost of producing print runs of paper copy gazetteers has in recent years been considered too expensive considering that digital names files are now available – through CD-ROMs and through data bases accessible on the World Wide Web.

#### 2.4.2 Distribution of digital data

Many geographical names databases are now maintained in a digital environment – either independently, or as integral parts of geographical information systems. Toponyms and their attributes can be distributed as a digital file to data users. These may include private mapping companies, delivery firms, hotel chains, genealogists, educational establishments, etc. Data may be available as off-the-shelf standard packages (e.g. all toponyms; populated places; hydrographical features), or could be customized for individual clients.

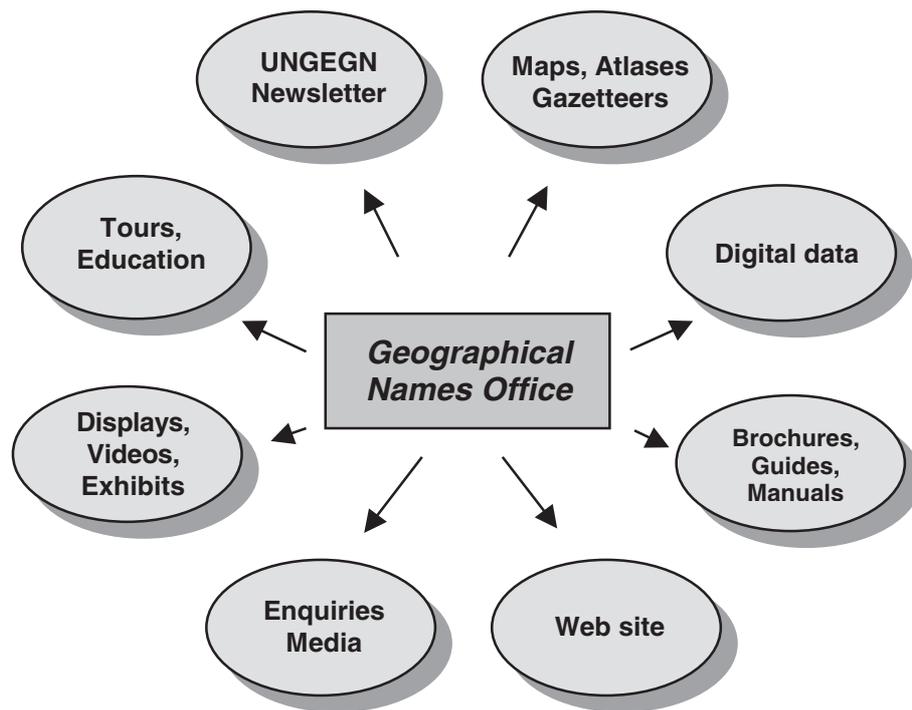


Figure 1. Some aspects of the dissemination of geographical names

As far as possible, the cost to the user should be kept to a minimum, so that there is encouragement to use the data that have been recorded in conjunction with the names authority. Actual recuperation of the cost of collecting and recording of all the names would put the price of files far higher than anyone would be able to pay! So alternatively, one could just consider charging the cost of creating the file for the user. Often, however, the administration associated with charging for small items is far more burdensome than the returns are worth, hence another possible approach is free distribution of data.

A viable alternative today is public access to the geographical names database through the Internet. World wide web servers allow remote access to the centrally maintained database, and can allow querying on the name or on a variety of other fields, as well as the possibility of downloading data. At the Seventh UN Conference on the Standardization of Geographical Names (1998), resolution 9 recommended that country toponymic Web sites be established and used for a variety of purposes, including:

- a) Information on the standardization of geographical names
- b) Toponymic guidelines

- c) Information on training courses in toponymy
- d) Nationally standardized names
- e) Interactive capabilities for handling geographical names enquiries
- f) Facilitation of the international exchange of toponymic data

The resolution further recommended that “access to data included on toponymic Web sites be provided free of charge in the interests of international standardization”.

For information to be provided free, a national names organization will likely require the wider support of the department responsible for such policy decisions. Another factor to consider – which varies widely from country to country – is whether or not licences must be issued (free or for a fee) for those private companies wishing to re-use the names data for value-added products.

#### 2.4.3 Other publications

As part of a web site and/or as hard copy publications, a names authority should consider some of the following types of material being generally available:

- Information about the board and its work  
(*e.g. general brochure about geographical names, the role and membership of the board, the principles and procedures of the board, how to be involved with the naming programme*)
- Tools for the guidance of the board, its researchers, and the users of the toponymic data  
(*e.g. field collection guide, generic terminology in use, rules for writing toponyms, guides for translators*)
- Publications on the names themselves, their history and origin  
(*e.g. dictionaries, regional names guides, toponymic bibliographies, educational items and quizzes on the web*)
- Newsletters, or “What’s new?” on a web site  
(*e.g. information sheets, web pages, article in government or organization newsletter*)

#### 2.4.4 A geographical names Web site

The possible uses of a World Wide Web site for geographical names have been mentioned several times. It is a very useful way of reaching a wide public (national and particularly international) and provides the ability to distribute information more easily than by creating many paper copy products. It also has the great advantage of being easily updateable – which is not true of paper copy material. Ideally, a web site should contain access to the national geographical names database. However, if that is not an immediate possibility, a web site can provide access to textual material, for example:

- Describing the board and its functions, introducing its members, and stating its principles and guidelines, even posting the name decisions made
- Listing data files, publications etc. that are available free or for certain costs
- Providing a bulletin board for information about which parts of the country are under study, or which regions are having names verified
- Allowing individuals (through an interactive form or simply by an e-mail address) to communicate questions and comments directly to the names office
- Providing documents about naming that have been presented at meetings, conferences, workshops, etc. to be more widely available
- Creating background materials / lesson plans for inclusion of toponymy in educational classes

There are many more possibilities for material to include on a geographical names Web site. Imagination and the availability of resources to launch and maintain the web site within an approved mandate are really the only constraints!

#### 2.4.5 Responding to enquiries from members of the public and the media

As far as possible, one of the aspects of office processing should be to answer questions and requests for information on spelling of names, their location, status, origin, etc. It may be difficult to plan ahead for these services, as the number of requests cannot necessarily be predicted, and may increase as the geographical names programme becomes better known. The introduction of a names web site may increase the volume of requests, but makes the answering process less costly than using postal and telephone services. In some offices, it is quite possible that the public may be able to make personal visits to view records and make their own research into the files. If so, some sort of space should be available for visitors, or arrangements should be made with another reference area to handle this.

The attention of radio or TV stations and newspapers is usually generated when some startling name decision is made, or some sweeping changes are to be put into effect! In other words, it probably has to be attention grabbing to make headlines! Requests for this sort of information are better handled if the possibilities have been worked out ahead of time, and staff assigned to answer such questions is well prepared. Sometimes the assistance of staff in a communications department may help to develop a plan for releasing material to the media, perhaps through a media information sheet.

Rather lower key are small time slots, on a regular or occasional basis, where a staff member provides an interview with interesting information for the public ... perhaps on a few names with special stories behind them, or names that fit in with a special local/national occasion or event. Speaking of administrative policies and board functions is usually of less interest to the media, who do not see this as exciting news!

Short reports on name activities might also be included in a local, regional or national newspaper. Through the Web, it is now possible to hold interviews or to have experts available in a “chat room” to answer questions online.

#### 2.4.6 Displays, exhibits, videos, open houses, poster sessions

Visual presentation of geographical names activities can be of considerable interest and of value in promoting a geographical names programme. Opportunities may present themselves for either a stand-alone display or for inclusion of photos, graphics etc. as part of mapping or cultural activities. A PowerPoint presentation could be prepared to run on auto-timing in a lobby, posters might be created to use in the building, or geographical names games and quizzes could be made to interest students of various ages.

Requiring more financial support, resources and time, is the creation of a video to illustrate and educate the public about cultural or technical aspects of toponymy and to spread the word about a names board. Within the last decade, both Canada and Finland have ventured in this direction. The Canadian video was made for introduction of the public to the work of the national names authority in Canada, a country with a vast land area, and a bilingual and multi-cultural identity. Finland produced a video to educate students in the processes of field collection of names, through personal interviews. Finland has also produced television footage relating to geographical names as part of the country's history and cultural identity.

#### 2.4.7 On-site tours, educational "kits", and training courses

Where the programme focus is located and data base maintained, it may be possible for staff to give tours and demonstrations to politicians, visiting bureaucrats, teachers, students, staff of other areas and new employees. This will help to provide an understanding of the geographical names programme and the relevance of toponymic activities to the work of government.

In-house staff training is, of course, essential; so also is the training of individuals who will be undertaking fieldwork. Sometimes the establishment of branch or regional offices will also make it necessary for staff to have an understanding of the central office procedures. Handouts and manuals will help to create a broader understanding of the tasks. Instructions on the Web may also prove very useful for training. A "kit", therefore, might be put together to provide a comprehensive collection of the manuals necessary for fieldwork and office processing (including details of data base entry).

Resolutions at United Nations Conferences have supported the concept of international training courses

(notably II/18, III/15, IV/6, V/21 and VI/13). They have also promoted the provision of cartographic toponymic training at university or equivalent (IV/5), and encouraged the provision of technical assistance or exchange visits (I/6 and II/20). Resolutions of the Seventh Conference:

- encouraged the Convenor of the UNGEGN Working Group on Training Courses in Toponymy to act as a clearinghouse for material relevant to toponymic training (VII/11);
- supported a course in association with the Eighth Conference in 2002 (VII/12);
- and recommended that the Working Group consider development of an Internet-based training course in toponymy (VII/9) – so reaching a larger number of interested groups.

#### 2.4.8 The UNGEGN Newsletter

Internationally there is a great need to obtain up-to-date geographical names information from all countries. In 1987, the UNGEGN Secretariat was tasked with producing and distributing an UNGEGN Newsletter, particularly to provide, from member countries, updates on availability of names information, significant new names decisions, and courses being given. Since then, the UNGEGN Secretariat has produced and distributed the Newsletter, once or twice a year. In 2002, the UNGEGN web site was established (<http://unstats.un.org/unsd/geoinfo>) and the last three newsletters have been posted there. From now on consideration will be given to web availability of the newsletter, and less paper copy distribution.

The Secretariat relies on the toponymy offices in the different countries to provide material for distribution. This is an ideal way for information on geographical names programmes and names boards to be distributed worldwide. Information from your country is needed by many people, and by sharing your experiences in different areas of development you will provide benefits to others embarking on similar routes to geographical names standardization.

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