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**United Nations Group of Experts On  
Geographical Names****2025 session**

New York, 28 April – 2 May 2025

Item 5 (c) of the provisional agenda \*

**Technical expertise: Writing systems and pronunciation****Audio pronunciation functionality in the *New Zealand Gazetteer*  
for Māori geographical names**

Submitted by New Zealand \*\*

**Summary**

The report builds on the information provided in the New Zealand government report for the 2023 session of the United Nations Group of Experts on Geographical Names.<sup>1</sup>

Most New Zealanders and visitors mispronounce Māori geographical names. To encourage correct pronunciation, the New Zealand Geographic Board Ngā Pou Taunaha o Aotearoa has engaged an expert licensed translator and linguist to record audio files for those Māori geographical names in the *New Zealand Gazetteer*<sup>2</sup> whose standardized orthography has been confirmed. This is a relatively recent initiative that the Board has undertaken despite having historically shied away from any form of advice on pronunciation, preferring in the past to focus on correct written orthography.

Last year the Board completed audio recordings of a further 2,152 Māori geographical names, making 6,382 in total available in the *Gazetteer*.

The Board has also established a free bulk download function to enable all the audio files to be reused in other systems and products, for example by the media when delivering news items on television or the radio, in online Māori language dictionaries and in public consultations on public works being undertaken in specific named places.

The report includes comments on the evidence-based value of the new functionality, which has provided the Board with the impetus to continue to pursue proper pronunciation, although it is not a statutory requirement. The functionality includes recognition of growing user expectations that audio files be included in the *Gazetteer* to assist with pronunciation and meaning. The report will include a discussion of some challenges that have emerged, such as regional accents and dialects that were not fully captured and the resulting criticism by some groups. The connection with relevant Sustainable Development Goals will also be addressed.

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\* GEGN.2/2025/1

\*\* Prepared by Wendy Shaw, Secretary for the New Zealand Geographic Board Ngā Pou Taunaha o Aotearoa

<sup>1</sup> Available at [https://unstats.un.org/unsd/ungegn/sessions/3rd\\_session\\_2023/documents/GEGN.2\\_2023\\_32\\_CRP32.pdf](https://unstats.un.org/unsd/ungegn/sessions/3rd_session_2023/documents/GEGN.2_2023_32_CRP32.pdf).

<sup>2</sup> See <https://gazetteer.linz.govt.nz/>

### **When and why were pronunciation audio files introduced?**

Prior to 2020 the Board made a conscious decision not to support pronunciation guidance for Māori geographical names. This was partly due to the Board's statutory focus being on the correct written form of any language used for geographical names, typically English and Māori. Also, the Board recognizes that people pronounce words differently, depending on their accents from different regions or countries and so it has no control over that. Dialects also play a part in differing pronunciations, presenting themselves with different spellings which affect pronunciation.

However, the Board's current and changed intentions relating to pronunciation of Māori geographical names arose from its own strategic objectives first published in 2020. The driver for the Board relates to making information about geographical names more readily available. The Board's outreach strategy finalised in 2021, identified success factors including 'A refreshed web presence incorporating the *Gazetteer* and geographic features, stories/meanings, pronunciation, process, social media, etc.' In addition to these two drivers, the past decade has seen:

- a groundswell of public expectation in using and understanding Māori – for example evidenced in news and weather reporting,
- government agencies (central and local) increased use of Māori resulting from initiatives to revitalize the language,
- the new education history curriculum rolled out in 2023-24 specifically including Māori geographical names, and
- campaigns by non-governmental organizations promoting the use of Māori as part of their everyday services, for example Vodafone's 'Say it Tika (right)' campaign, and Air New Zealand's onboard greetings and farewells in Māori plus their onboard quiz with answers in English and Māori.

Revitalization initiatives over the past several decades have seen an increase in Māori speakers. In particular, the Māori Language Act 1987 (updated in 2016), has been the impetus for Te Taura Whiri i te Reo Māori (the Māori Language Commission) who administer the Act, to be instrumental in promoting, preserving and standardizing the official language, running programmes and publishing material. Many government agencies uphold the taonga (treasure) of revitalizing the Māori language including Toitū Te Whenua Land Information New Zealand – the government agency administering our national naming authority – stating in its strategic intentions 2023-2027<sup>1</sup>: '*Our people have the necessary skills and capability to engage with Māori and iwi [tribes], through improved knowledge and understanding of Te Tiriti o Waitangi [the Treaty of Waitangi], tikanga [protocols] and te reo Māori [the Māori language].*'

One of the most compelling reasons for Māori geographical names pronunciation audio files in the *New Zealand Gazetteer* was that correct pronunciation is based on standardized orthography. This new functionality therefore became a greater priority for and justifiable by, the Board. Noting also that it meets a stated intention in the Board's *Māori Language Plan*<sup>2</sup> 'Pursue pronunciation audio in the *Gazetteer*.'

### **Confirming the decision to pursue audio pronunciation files for Māori geographic names**

In recognizing that the geographical naming landscape had changed significantly, both in New Zealand and globally, the Board saw its Māori geographical naming work as a critical part of creating a sense of belonging, of connection with home, community, and place, which all relate to wellbeing and are aligned to the UN's Sustainable Development Goals.

As part of meeting the 2021 outreach strategy, the *New Zealand Gazetteer* was therefore identified for enhancement, including stories and pronunciation.

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<sup>1</sup> <https://www.linz.govt.nz/sites/default/files/corp/Toitu%CC%84%20Te%20Whenua%20Strategic%20Intentions%202023-27.pdf>


<sup>2</sup> <https://www.linz.govt.nz/resources/strategy/maori-language-plan-nga-pou-taunaha-o-aotearoa-new-zealand-geographic-board>

## Making it happen

In April 2021, the Board discussed with Te Taura Whiri i te Reo Māori (the Māori Language Commission) how to progress a *New Zealand Gazetteer* geographical name pronunciation function. All aspects of delivery were subject to funding approval.

In March 2022 the Board arranged for an expert licensed translator and linguist to record audio pronunciation files for Māori geographic names in the online *New Zealand Gazetteer* – specifically for those that have had their standardized orthography formally confirmed.

Recording began in August 2022. The *New Zealand Gazetteer* backend database was enhanced to provide an audio function for pronunciation with an automated process to pull the uniquely named sound bites (MP3 files) with name IDs and their geographical names, for data linking to the online *Gazetteer*. The search function looks for ID matches and the audio function will be activated if they are present. The file will then be served up alongside the geographical name through the online *Gazetteer*. Quality assurance checks and additional links were added for duplicate names, before copying the sound bite files to a dedicated Amazon Web Service (AWS) cloud-based server.

The pronunciation audio functionality in the *Gazetteer* went live at the start of Māori Language week on 12 September 2022. The symbol to click on to hear the pronunciation is a small speaker  next to the searched name. There is no metadata, such as when recorded, who recorded, copyright, selection of names, etc. All information is held in the Board's records.

The criteria for the first batch of 882 names was: official Māori place names of towns, cities, suburbs, plus dual names, Treaty names, and 'significant' geographic feature names based on Topo font size. For dual place names and place names with English generics, the expert licensed translator and linguist also said the English part. This ensured that the full official geographical name was spoken.

## How many audio files have been published?

A total of six batches of Māori geographical names received audio pronunciation between August 2022 and May 2024, making 6,382 in total available in the *New Zealand Gazetteer*.

No further batches are scheduled for the immediate future as there are currently no Māori geographic names left with confirmed standardized orthography. There are still nearly 19,000 Māori geographical names that require pronunciation audio files, but until they've been assessed for standardized orthography by an expert licensed translator and linguist, they will remain without the pronunciation functionality.

## Examples of pronunciation audio in the *New Zealand Gazetteer*

- Aoraki/Mount Cook <https://gazetteer.linz.govt.nz/place/7297>
- Te Oneroa-a-Tōhē / Ninety Mile Beach <https://gazetteer.linz.govt.nz/place/55202>
- Rotorua <https://gazetteer.linz.govt.nz/place/38867>
- Matiu / Somes Island: <https://gazetteer.linz.govt.nz/place/3308>
- Whanganui: <https://gazetteer.linz.govt.nz/place/6879>
- Taupō: <https://gazetteer.linz.govt.nz/place/41913>
- Wānaka: <https://gazetteer.linz.govt.nz/place/6876>
- Te Taumatawhakatangihangākōauauotamateaturipūkākāpikimaungahoronukupōkaiwhenuakitanatahu: <https://gazetteer.linz.govt.nz/place/60053>. Refer also to the Dictionary of New Zealand's recording in song of this long place name: <https://teara.govt.nz/en/music/24219/longest-place-name-in-the-world>.

## Downloads and use

In 2023 the Board established a bulk download function to enable the audio files to be used in other systems and products. This is a manual download function delivered by the Board's Secretariat and is not available as an online data download or machine to machine web feature service.

### **Benefits**

*Positive feedback:* the Board has received positive feedback about the audio pronunciation clips currently available in the *New Zealand Gazetteer*.

*Cultural preservation:* pronunciation audio files help preserve the correct pronunciation of Māori geographical names, especially those of original/ancestral/traditional origin. This is crucial for maintaining the cultural heritage and oral traditions of communities.

*Educational value:* pronunciation audio files serve as an educational tool, helping people learn and correctly pronounce Māori geographical names and understand their meanings with the nuance of stressed vowels or word separation or composite words. This is particularly beneficial for non-native speakers or those unfamiliar with the Māori language.

*Inclusivity and respect:* using correct pronunciation shows respect for the local culture and language, promoting inclusivity, national identity and cultural sensitivity.

*Enhanced user experience:* for digital gazetteers, pronunciation audio files can enhance the user experience by providing clear and accurate guidance.

*Tourism and communication:* tourists and visitors can benefit from knowing how to pronounce Māori geographical names correctly, improving communication and making their experience more enjoyable.

*Future generations:* where language is not spoken or written, it is gradually lost. It is vital therefore that every opportunity is taken to ensure that one of the foundations of culture, ie language, continues to endure and thrive.

### **Challenges**

Contrary to the benefits, opposing issues must be weighed up to assess whether a national naming authority might pursue audio pronunciation of geographical names or not.

*Resource intensive:* creating, populating and maintaining a comprehensive database of pronunciation audio files requires significant time, effort, commitment and financial resources. This includes recording, editing, and updating files as needed.

*Accuracy and consistency:* ensuring the accuracy of pronunciations can be difficult, especially for places with multiple accepted pronunciations or dialectal variations. Consistency across different regions and languages is also a challenge. Ngāi Tahu<sup>3</sup> has informed the Board that the pronunciation audios are not quite right for some of their names, but overall they are pleased with the initiative.

*Technical issues:* integrating audio files into digital platforms, such as maps and navigation systems, can be technically complex. Issues like file compatibility, storage, and playback quality need to be considered.

*User accessibility:* not all users might have the necessary technology or internet access to use audio files effectively, which can also mean large file sizes. This can limit the reach and usefulness of the pronunciation aids.

*Cultural sensitivity:* pronouncing Māori geographical names correctly is important, but it can also be sensitive. Mispronunciations or incorrect representations can lead to cultural misunderstandings or disrespect.

### **International examples of audio pronunciation for geographical names**

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<sup>3</sup> The tribe covering most of the South Island or Te Waipounamu

First Languages Australia published its *Gambay - First Languages map*<sup>4</sup> reflecting the names and groupings used by community. The map and search function offer multiple pronunciations, videos and stories.

Canada has shared over 400 geographical name audio files of the *Innu Nation in Labrador*<sup>5</sup>. Canada has also produced interactive maps entitled ‘*Stories from the Land Indigenous Place Names in Canada*’<sup>6</sup> and these have provided a pronunciation field, though appear not to have been populated yet.

The *Placenames Database of Ireland*<sup>7</sup> includes audio pronunciation sound bites for some of its geographical names, in Irish and English. All data is available for linking through an API (Application Programming Interface) and downloads are available in multiple formats.

Searching for international gazetteers with audio pronunciation clips for geographical names did not reveal many. There will be other Member States offering this function but they are not listed.

### Relevant UNGEGN resolutions

The Board’s own relatively recent initiative to proceed with pronunciation audio files for geographical names in its *Gazetteer*, while independent of UNGEGN resolutions, has nonetheless met UNGEGN’s intentions.

UNGEgn has raised the question of pronunciation through various resolutions<sup>8</sup> over many years. These resolutions have focussed on the standardization of geographical names, including their pronunciation, to ensure consistency and clarity in international communication:

*Resolution VIII/11*: ‘Noting that a geographical name has both oral and written forms, Noting also that the transliteration of geographical names from the script of one language into the script of another with or without diacritical marks, such as romanization, does not normally provide a guide to the correct pronunciation of such names by persons who are unacquainted with the source language,

Noting further that the Third United Nations Conference on the Standardization of Geographical Names in its resolution 7 recommended taking up the subject of pronunciation,

Recommends that a Working Group on the Pronunciation of Geographical Names be established within the United Nations Group of Experts on Geographical Names.’ [This Working Group was later disbanded.]

*Resolution VIII/4*: The Working Group on Exonyms, formed in 2002, has a task in preparing measures for the publication of pronunciation guides for endonyms. This task has not yet been fulfilled by the Working Group.

*Resolution IV/4*: recommends that toponymic guidelines include ‘Aids to pronunciation of geographical names’.

*Resolution III/7*: ‘Noting that the transfer of names from one writing system into another would be facilitated by information on pronunciation,’

‘Recognizing the practical difficulty of indicating precise pronunciations but the feasibility of providing indications of approximate pronunciations adequate for comprehension in the received script’,

<sup>4</sup> <https://gambay.com.au/languages>

<sup>5</sup> <https://natural-resources.canada.ca/maps-tools-publications/maps/geographical-names-canada/innu-aimun-audio-place-names-labrador>

<sup>6</sup> <https://maps.canada.ca/stories/storymap-en.html?lang=en&appid=acbd8457a3fa46df874351e1179ea237&appidalt=83e6463db5194c33be31f456f2cbd913>

<sup>7</sup> <https://www.logainm.ie/en/>

<sup>8</sup> <https://www.ngii.go.kr/portal/ungn/detailFre.do>

‘Recommends that the Group of Experts consider the nature and design of research and experimentation that may help to establish the ranges of comprehensible pronunciation.’

*Resolution I/16:* In relation to recording unwritten languages ‘Where necessary, a narrow transcription of the pronunciation of the geographical name will be carried out in order to record as precisely as possible the full phonetic character of each name’,

‘Recording directly into a conventional alphabet or other writing system, if possible by a person familiar with the language from which the recording is made; if the person making the recording is unfamiliar with the language, as much information as possible will be recorded in order to assess the reliability of the names as finally written.’

*Resolution I/10:* ‘Recognizing that the accents and diacritical signs which accompany the Roman alphabet letters of many languages are an integral part of the spelling of these languages, in which they express such essential features as the tonic accent, the length and degree of openness of vowels, and other significant aspects of pronunciation and meaning, Recommends that in international use all geographical names officially written in these alphabets by the countries concerned should remain unmodified and keep their distinguishing marks, even, and indeed particularly, when they are written in capital letters.’

*Resolution I/4&4.5:* Standardisation in respect to the collection of geographical names recommends that research provides:

- ‘Written and spoken form of the name and its meaning according to local inhabitants’ and
- ‘The local spoken form of the name be recorded on tape and written in the phonetic notation approved by the national names authority’ and
- For gazetteers, ‘When national authorities determine it possible, both technically and economically, they may include such information on geographical names as gender, number, definite and indefinite forms, position of stress, tone and pronunciation in the system of the International Phonetic Association and such other linguistic information as may lead to the better understanding and use of names both nationally and internationally.’

The Working Group on Romanization Systems, which deals with the transliteration of names from non-Roman scripts to Roman scripts, also ensures that pronunciation is as accurate as possible.

### **Relevant UN SDGs**

*4 Quality Education:* Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. ‘*Accessible pronunciation audio files will be available for education and learning purposes.*’

*10 Reduced Inequalities:* Reduce inequality within and among countries - implementing social protection measures, combating discrimination, supporting marginalized groups. ‘*Correct pronunciation respects the language which is deeply identified with by those to whom it belongs.*’

### **Points for discussion**

The Group of Experts is invited to:

- (1) Take note of New Zealand’s efforts to offer pronunciation of Māori geographical names (with confirmed standardized orthography) in its *New Zealand Gazetteer*.
- (2) Take note of the obstacles in pursuing this functionality.
- (3) Take note of UNGEGN’s direction and UN SDG expectations, and the resulting benefits.
- (4) Discuss Member States’ challenges with pursuing pronunciation files for geographical names, for example regional differences.
- (5) Take note of other Members States who have audio functionality available for their geographical names.
- (6) Consider whether creating metadata and capturing metrics on reuse of the data is necessary.

- (7) Decide on whether UNGEGN's direction should be strengthened for producing pronunciation audio files for geographical names in gazetteers.
- (8) Consider how other government agencies, academics or map providers might collaborate to produce pronunciation audio files for geographical names in gazetteers.