

The Offline Oriented (TOO)

An introduction presentation to TOO,
an offline available map in a ZIM file.

The world has a connectivity problem

- The digital divide is still prevalent:
 - Only 53.6% of the world population has Internet access (source: ITU)
- Schools, community centres, etc. may provide Internet...
 - ... but simple tasks such as homework upload or an article lookup have to be planned and require an extra trip.
- Even with internet access at home, the connection could be
 - Intermittent and unreliable
 - Slow
 - Metered
 - Shared with many others
 - Censored or limited to a single use case

Kiwix

- Kiwix is a non-profit organization that aims to bridge the digital divide.
- The Kiwix browser can read from ZIM files.
 - ZIM file examples: Wikipedia, Gutenberg books, TED talks, Phet, ... etc.
 - Supported devices: PCs, Tablets, Smartphones, Browsers (Raspberry Pi Hotspot), ... etc.
- Kiwix's approach integrates well with sneakernets.
 - Sneakernet: sharing files with storage devices.
- Access to knowledge is possible in areas without Internet
 - In rural areas
 - On the sea
 - Etc.
- Kiwix does not provide maps.

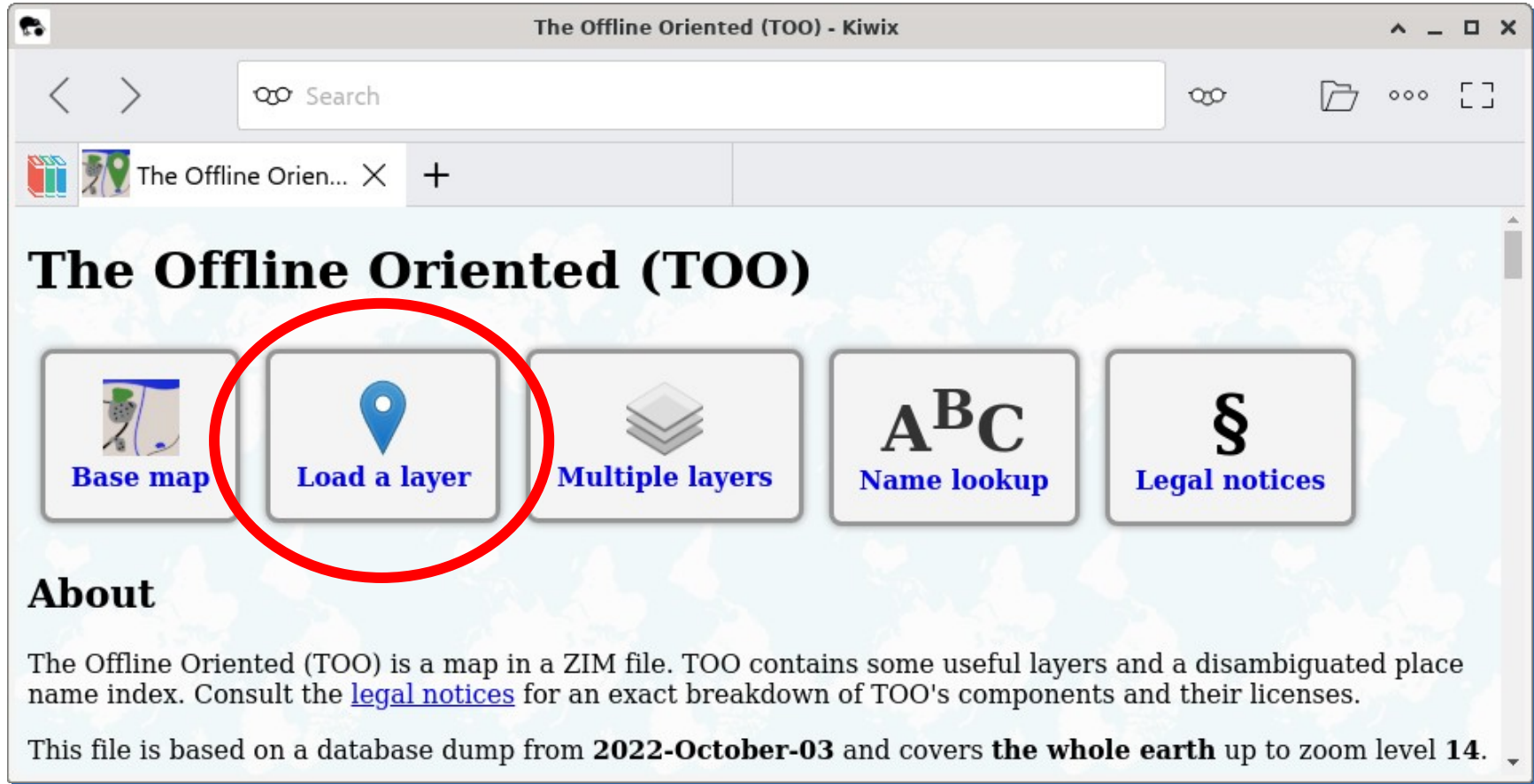
Spatial knowledge

- Spatial data is difficult to represent in textual encyclopedic articles.
- Maps in general contain many helpful, useful and very relevant information pieces.
- But: looking up the nearest hospital, for example, isn't exactly easy.
 - This holds true **with Internet** ...
 - ... but even more so **without Internet!**

The Offline Oriented (TOO)

- TOO contains a rendered map in a ZIM file.
- **SDG**-oriented layers are included.
 - They allow for easy lookups of the nearest features.
 - They contain addresses, telephone numbers, opening hours, ... etc.
 - They are searchable.
- Additionally, around 4.5 million place names are included.
 - Both the localized version and the English translation.
- TOO is tailored to old & low-end devices.

Example: Medical emergency (1)



The screenshot shows a web browser window titled "The Offline Oriented (TOO) - Kiwix". The browser's address bar contains a search field with the text "Search". Below the address bar, there is a tab titled "The Offline Orien...". The main content area features a light blue world map background. At the top of the content area, the text "The Offline Oriented (TOO)" is displayed in a large, bold, black font. Below this text, there are five buttons arranged horizontally, each with an icon and a label: "Base map" (with a map icon), "Load a layer" (with a location pin icon and circled in red), "Multiple layers" (with a stack of layers icon), "Name lookup" (with the letters "ABC" icon), and "Legal notices" (with a paragraph symbol "§" icon). Below the buttons, the word "About" is written in a bold, black font. Underneath "About", there is a paragraph of text: "The Offline Oriented (TOO) is a map in a ZIM file. TOO contains some useful layers and a disambiguated place name index. Consult the [legal notices](#) for an exact breakdown of TOO's components and their licenses." At the bottom of the page, there is another line of text: "This file is based on a database dump from **2022-October-03** and covers **the whole earth** up to zoom level **14**."

Example: Medical emergency (2)

The Offline Oriented (TOO) - Kiwix

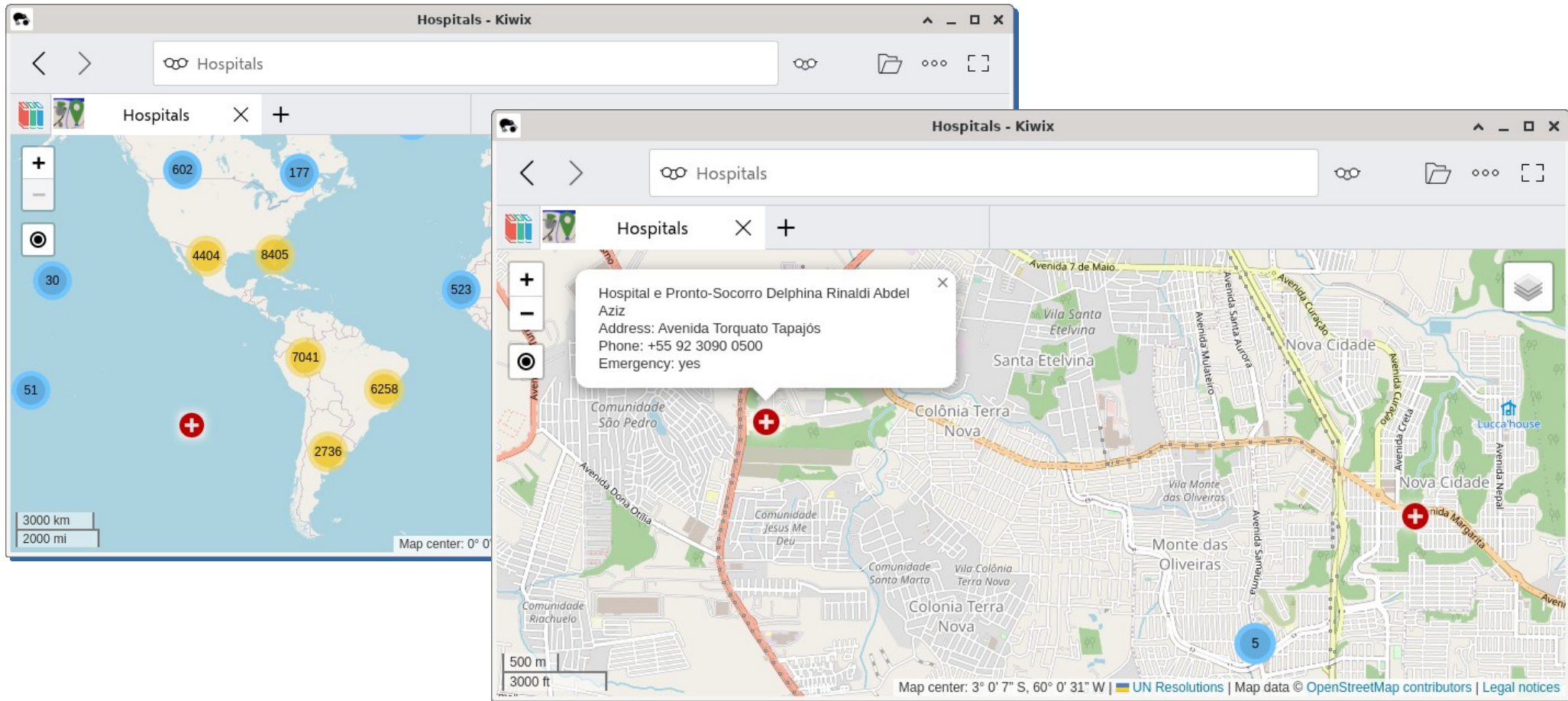
Search

The Offline Orien... X +

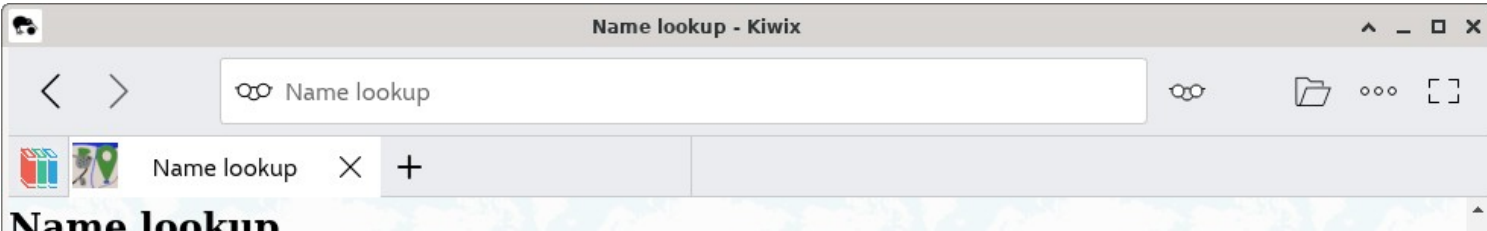
Layer list

Name	Description	Fields in tooltip
 Health: Hospitals (30)	Hospitals that are supposed to deal with medical emergencies thanks to its medical personnel, medical equipment and emergency department. This layer includes hospitals where data does not tell whether there effectively is an emergency department or not. <ul style="list-style-type: none">Small Wiki: HospitalSmall Wiki: Emergency ward entrance	Name, street, house number, phone, email, information related to emergency.
 Health: No emergency	Medical care when there is no emergency, i.e. medical attention requiring an appointment. This layer contains hospitals which explicitly aren't equipped for emergencies, clinics and doctor's offices. <ul style="list-style-type: none">Small Wiki: ClinicSmall Wiki: Doctor's office	Name, street, house number, phone, email, opening hours.

Example: Medical emergency (3)



Example: Search in layers



Name lookup

Layer features

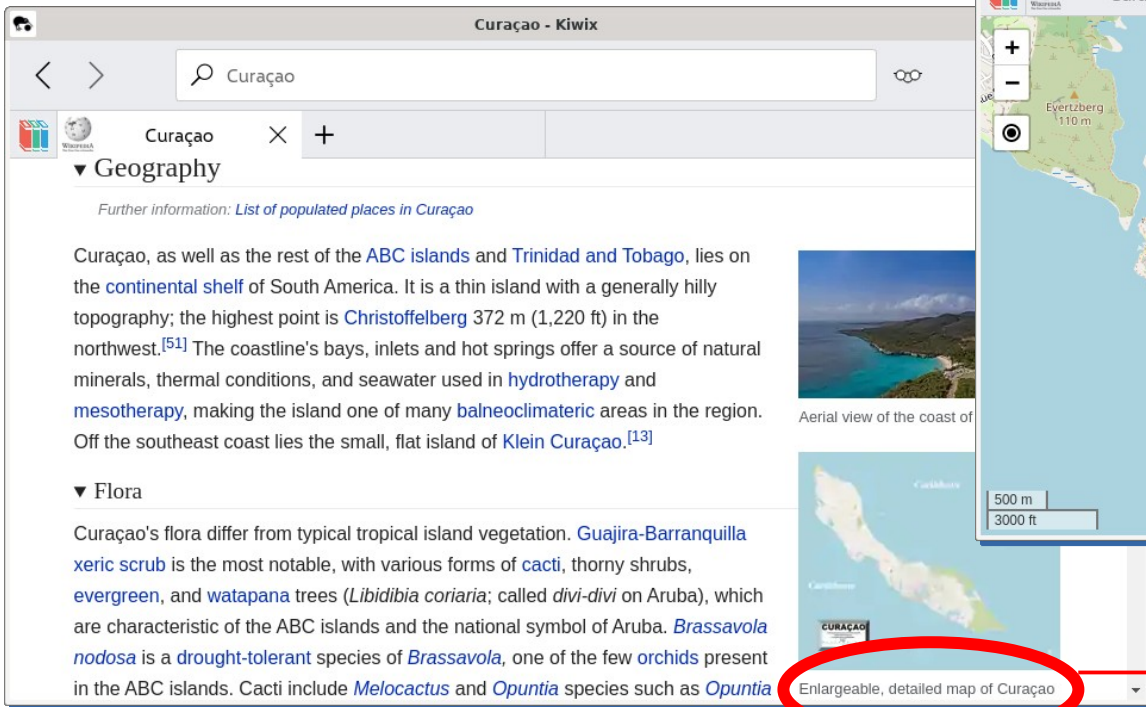
You can display layer features matching a search term only.

Layer	
Health: Hospitals (193589)	
Health: No emergency medical care (320925)	
Health: Pharmacies and medical supply (362196)	
Health: Chemists (43863)	
Security: Police stations and customs (140775)	
Education: Libraries (110769)	
Infrastructure: Public transport stops (486437)	
Infrastructure: Fuel (492998)	
Infrastructure: Drinking water (299581)	
Infrastructure: Toilets (435433)	
Infrastructure: Showers (26609)	
Infrastructure: Laundries and lavoirs (73477)	
Infrastructure: Shelters (428890)	
Social: Social facilities (127310)	food_bank



Search in layer "Social facilities"

Example: Homework assignment



Curaçao - Kiwix

Curaçao

▼ Geography

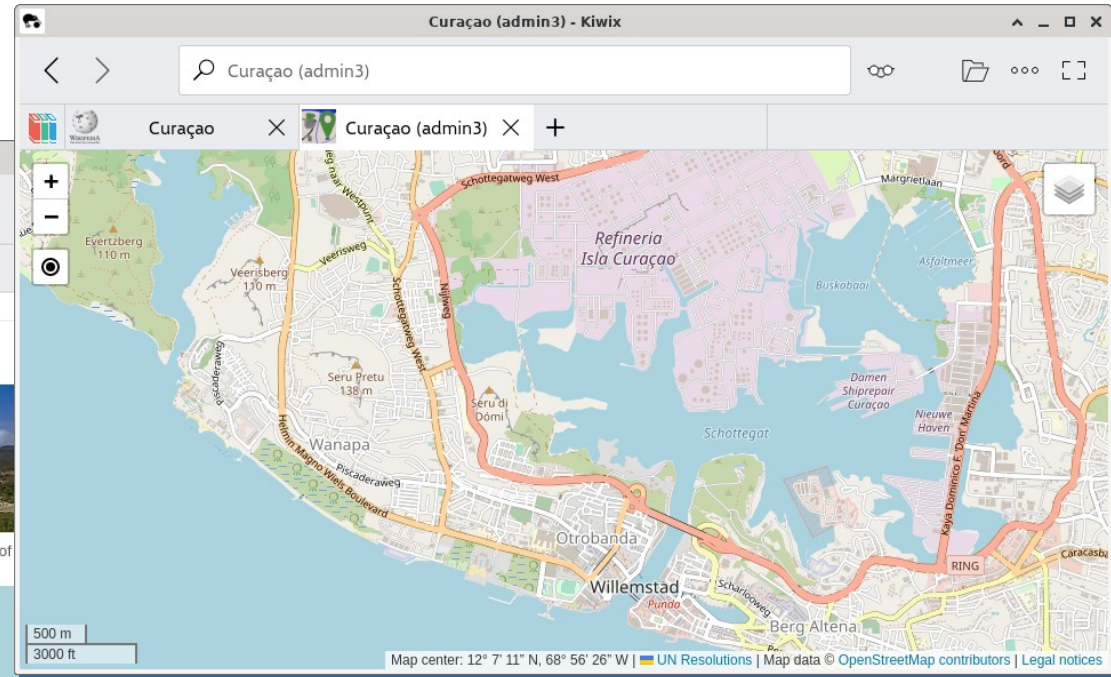
Further information: [List of populated places in Curaçao](#)

Curaçao, as well as the rest of the **ABC islands** and **Trinidad and Tobago**, lies on the **continental shelf** of South America. It is a thin island with a generally hilly topography; the highest point is **Christoffelberg** 372 m (1,220 ft) in the northwest.^[51] The coastline's bays, inlets and hot springs offer a source of natural minerals, thermal conditions, and seawater used in **hydrotherapy** and **mesotherapy**, making the island one of many **balneoclimateric** areas in the region. Off the southeast coast lies the small, flat island of **Klein Curaçao**.^[13]

▼ Flora

Curaçao's flora differ from typical tropical island vegetation. **Guajira-Barranquilla xeric scrub** is the most notable, with various forms of **cacti**, thorny shrubs, **evergreen**, and **watapana** trees (*Libidibia coriaria*; called *divi-divi* on Aruba), which are characteristic of the ABC islands and the national symbol of Aruba. **Brassavola nodosa** is a **drought-tolerant** species of **Brassavola**, one of the few **orchids** present in the ABC islands. Cacti include **Melocactus** and **Opuntia** species such as **Opuntia**

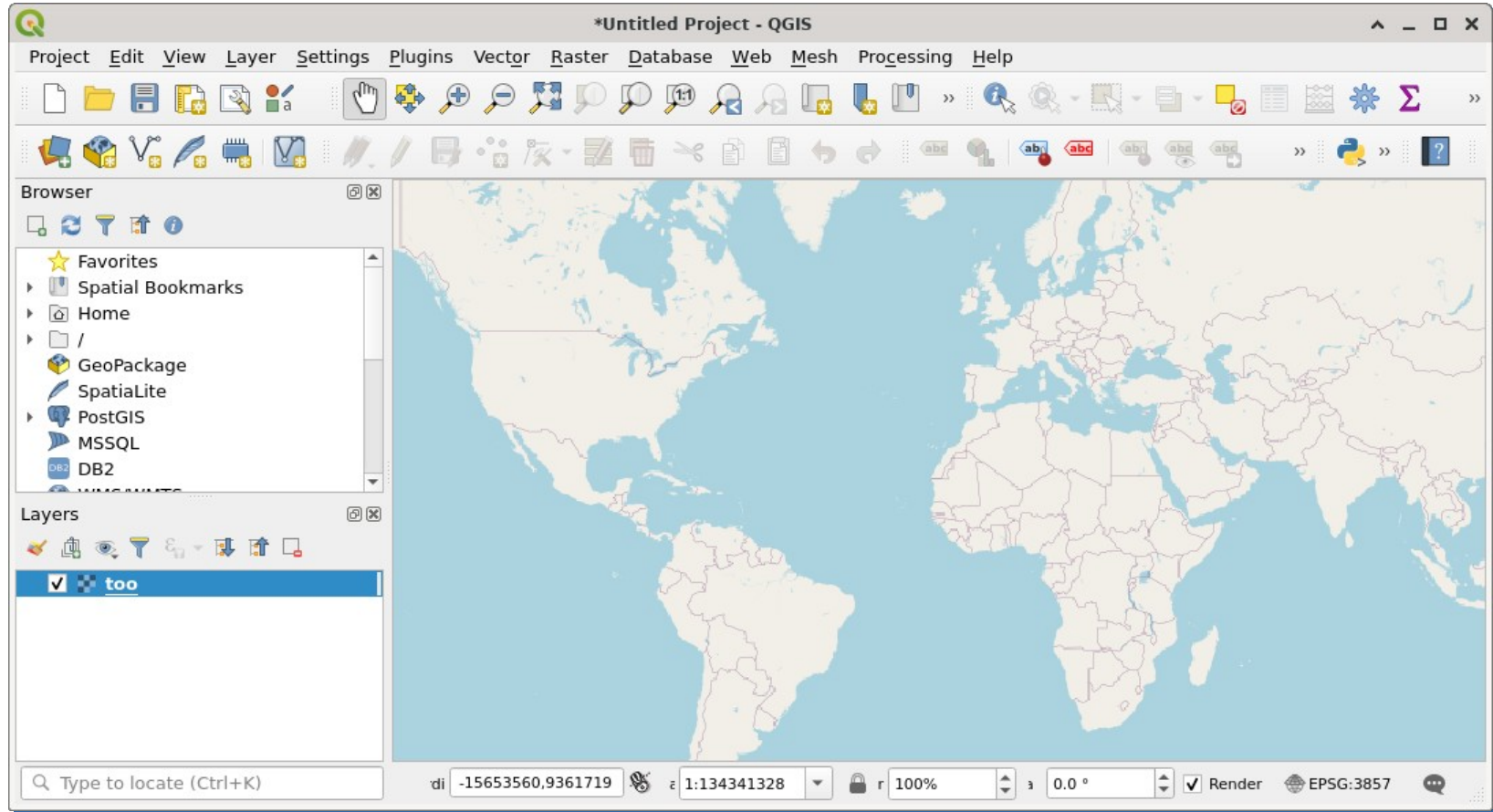
Enlargeable, detailed map of Curaçao



Unfortunately not feasible for the Wikipedia ZIM file...

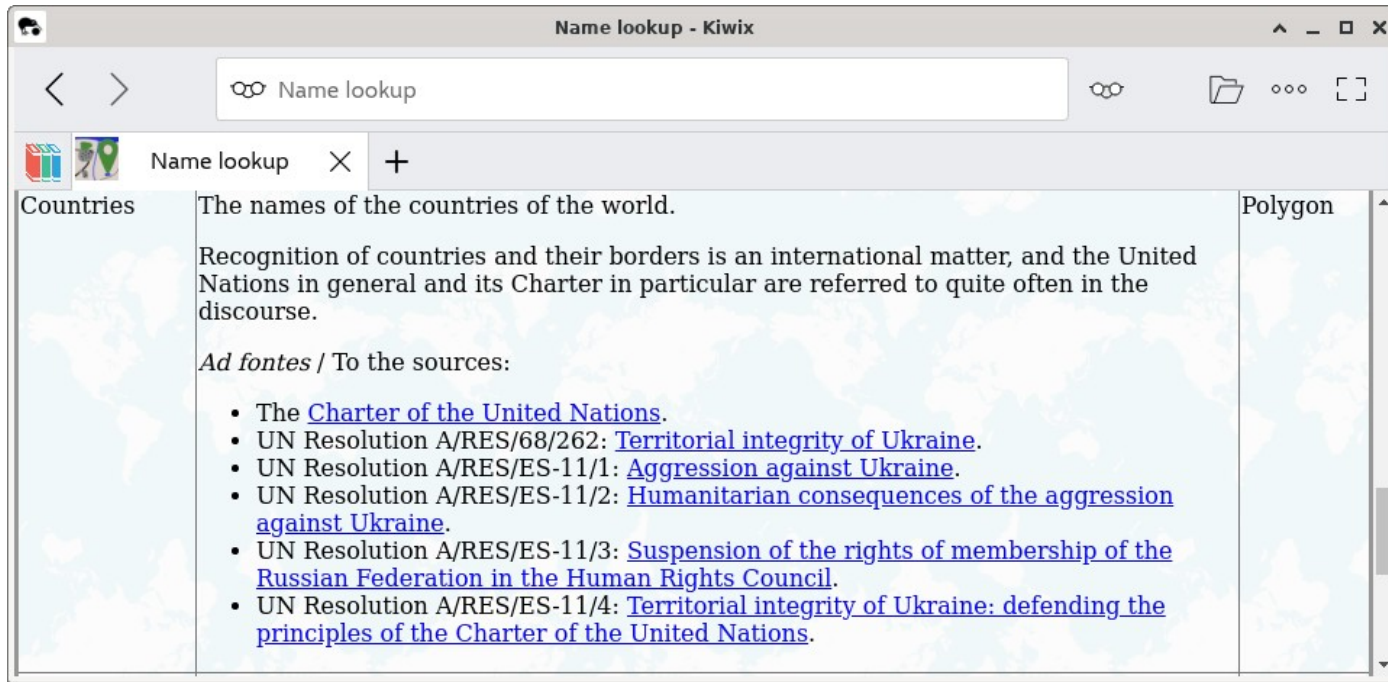
... but possible with TOO.

Example: TOO as a supporting background in QGIS



UN Charter and UN Resolutions

- TOO raises awareness regarding the Russian invasion of Ukraine.



The screenshot shows a web browser window with the title "Name lookup - Kiwix". The search bar contains the text "Name lookup". Below the search bar, there is a tab labeled "Name lookup". The main content area displays search results for "Countries".

Countries The names of the countries of the world. Polygon

Recognition of countries and their borders is an international matter, and the United Nations in general and its Charter in particular are referred to quite often in the discourse.

Ad fontes / To the sources:

- The [Charter of the United Nations](#).
- UN Resolution A/RES/68/262: [Territorial integrity of Ukraine](#).
- UN Resolution A/RES/ES-11/1: [Aggression against Ukraine](#).
- UN Resolution A/RES/ES-11/2: [Humanitarian consequences of the aggression against Ukraine](#).
- UN Resolution A/RES/ES-11/3: [Suspension of the rights of membership of the Russian Federation in the Human Rights Council](#).
- UN Resolution A/RES/ES-11/4: [Territorial integrity of Ukraine: defending the principles of the Charter of the United Nations](#).

Summary

- TOO empowers humans without internet access with spatial knowledge.
- Those humans with access to TOO can
 - Discover important infrastructure in vicinity.
 - Search for both places and features.
 - Navigate to a place.
 - Perform spatial planning.
- And everything without an Internet connection.