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English

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Technical expertise: Geographical names data management

Gazetteer Creator QGIS Plugin: A Tool for Automating PDF Gazetteer Creation

Summary [**]

One of the key modules presented during the International Training on Toponymy held in Bali in 2023 was Geographical Names Data Processing and Management. The training emphasized the importance of cost-efficient and straightforward tools for standardizing geographical names data and incorporating them into gazetteers. To address this need, the Indonesian Geospatial Information Agency (*Badan Informasi Geospasial*-BIG) developed innovative tools tailored to participants' with diverse professional backgrounds, prioritizing open-source solutions. QGIS was chosen as the primary software for practical sessions due to its versatility in handling and disseminating geographical names data.

Producing gazetteers in PDF format with embedded spatial attributes has traditionally been challenging due to limitations in existing QGIS functionalities, which lack direct support for exporting spatial data attributes to PDF. This process often requires multiple manual steps, complicating short-term training for participants without geospatial expertise. To overcome these challenges, the Indonesian Geospatial Information Agency (*Badan Informasi Geospasial*-BIG) introduced the Gazetteer Creator QGIS Plugin, a tool designed to streamline and automate the creation of PDF-format gazetteers.

The plugin simplifies the production of basic gazetteers by leveraging attributes such as feature type, name, and coordinates. The plugin automatically calculates coordinates of the spatial data using the WGS 1984 system if the data do not have coordinate columns. This functionality reduces manual processing steps and enables users to produce standardized outputs efficiently.

Initially developed as a training tool, the Gazetteer Creator QGIS Plugin has undergone iterative improvements based on user feedback. Following its publication in the QGIS Plugin Repository, it gained substantial traction, with over 1,000 downloads

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[**] Prepared by Hanif Arafah Mustofa, Kiki Nur Putra, and Aji Putra Perdana, Indonesia, Geospatial Information Agency (BIG). The report will be available under document symbol GEGN.2/2025/123/CRP.123, in the language of submission only, at https://unstats.un.org/unsd/ungegn/sessions/4th_session_2025/

worldwide within a year. This widespread adoption demonstrates its accessibility and utility for geospatial and non-geospatial professionals.

By automating the gazetteer creation process, this plugin contributes to the broader goal of geographical names data management, ensuring that standardized data is quickly produced and disseminated. It also aligns with the objectives of the United Nations Group of Experts on Geographical Names (UNGEGN) by facilitating the efficient handling of geographical names data for integration into official gazetteers. This paper highlights the development and application of the Gazetteer Creator QGIS Plugin as a practical solution for automating gazetteer production.