ANNUAL





January 2022 - June 2023

Open Mapping for Sustainability
Bhumandala Awards 2022
Booster Grants 2022
Community Meet-Up

2022-2023



This report is provided into Bahasa and English. Perkumpulan OpenStreetMap Indonesia is the author of this document. All the image and data source from the document is derived from POI itself as stated below.

RREVIEWER & THEME DESIGN: Dewi Sulistioningrum

EDITOR: Anjar Akrimullah

CONTENT:

Iko Panji Rukmana Mukhlis Akbar Zainab Ramadhanis R.L Kartika Sari Catherine Pamela Felita Fatisua Ilani Yusuf

OpenStreetMap® is open data, licensed under the Open Data Commons Open Database License (ODbL) by the OpenStreetMap Foundation (OSMF).

The maps created in this report use licensed OSM data © OpenStreetMap Contributors.

October 2023

Contact Us:

Plaza Marein Lt.23, Jl. Jenderal Sudirman Kav. 76-78 Jakarta. 12910



www.openstreetmap.or.id



perkumpulan@openstreetmap.id

Table of Content



Tabel of Content

2

Preface

Message from our Head of Operation Introduction Our Team Bhumandala Awards 2022

6

Project

Project Stats
Our Effort to Support Open-Mapping
Highlighted Projects

10

Community Engagement

Mapping Competition Community Meet Up Booster Grants OSMGeoWeek

15

Sustainable Cities

S2Cities SiPetani DKI EV Data Collection

20

Disaster & Climate Resilience

Disaster Mapathon Training for Trainer Lake Crowdsource Mapping Disaster Response Training

28

Innovation & Infrastructure

Map With Ai Historical Crowdsource Data

32

Our Community

33

Data Insight

Data Analytic
Data Quality
Social Media

40

Financial Reports

41

Impact Partners

Message from Head of Operation

In November 2021, we transitioned from the Humanitarian OpenStreetMap Team Indonesia to the Perkumpulan OpenStreetMap Indonesia (POI). Since 2011, we have actively engaged in initiatives and activities to provide and update free and open geospatial data using OpenStreetMap (OSM) in Indonesia. POI is a non-profit organization established in 2017 in Indonesia to facilitate seamless collaboration between local partners and POI in executing various projects. In this transition period, we collaborated with the Open Mapping Hub Asia Pacific - HOT to build the capacity of local communities to improve free and open mapping and produce quality OSM data so that it can be used for sustainable development by communities and stakeholders in Indonesia.

POI is dedicated to enhancing and keeping the quality of OSM data by engaging local individuals and communities in mapping activities across Indonesia. We are also actively developing an open monitoring and reporting platform using Ushahidi. Throughout 2022-2023, we collaborated with the partners and donors outlined, resulting in notable impacts in humanitarian efforts, disaster management, and community capacity building.

We express our gratitude to our partners and donors, with special recognition for the community, universities, and local government that supported us in conducting open and free mapping initiatives. Additionally, we appreciate the Geospatial Information Agency (BIG) for acknowledging our efforts with the 2022 Bhumandala Award.

We recognize the significance of open and accessible geospatial data that is up-to-date and readily available to aid humanitarian efforts and sustainable development. Therefore, we actively promote collaborative partnerships with various stakeholders to support Indonesia's OSM initiatives.

Dewi Sulistioningrum POI Head of Operation

Happy Mapping

Introduction

Perkumpulan OpenStreetMap Indonesia (Indonesian OpenStreetMap Association), or POI, is a non-profit organization dedicated to enhancing capacity development and fostering sustainable development through OpenStreetMap.

In 2011, the Humanitarian OpenStreetMap Team (HOT), a non-profit organization that emphasizes humanitarian efforts and capacity building using the free and open mapping platform OpenStreetMap, initiated a project in Indonesia. The project aimed to promote awareness regarding the significance of spatial data in disaster risk reduction and to establish a local OpenStreetMap community.

In the span of 6 years, we have persistently worked towards encouraging the adoption of OpenStreetMap among community members through diverse training initiatives and regional mapping endeavors across Indonesia.

In 2017, we took a step further by establishing a local entity known as the 'Perkumpulan OpenStreetMap Indonesia' or POI. With the same objectives, POI is positioned further to advance the promotion of free and open geospatial data to address various societal needs in Indonesia.

VISION

Promote the use of open geospatial data for sustainable development and capacity building for community

MISSION

Promoting the Utilization of Open Geospatial Data

Through spatial analysis, we aim to produce an accurate, open, and accessible data for public

Capacity Development

We initiated to engage and doing a capacity building for peoples from different sectors such as grassroots, open-source communities, and universities as agents of change.

Data Innovation

As an open-source based organization, we are committed to maintain a good quality's standard of geospatial data to provide a solution for public needs

Our Team

Perkumpulan OpenStreetMap Indonesia comprises eight key staff members actively involved in the organization's operations and project execution. Collaborating with the community, our collective effort advocates for open spatial data to support humanitarian initiatives and sustainable development.



Dewi Sulistioningrum *Head of Operations*



Anjar Akrimullah *Project Manager*



R.L Kartika Sari Finance & Admin Manager



Iko Panji RukmanaData Quality Lead



Mukhlis Akbar GIS Technical Specialist



Zainab Ramadhanis Open Innovation Specialist



Catherine Pamela Felita
Communication &
Community Engagement
Specialist



Fatisya llani Yusuf Project & Training Officer

Bhumandala Awards 2022









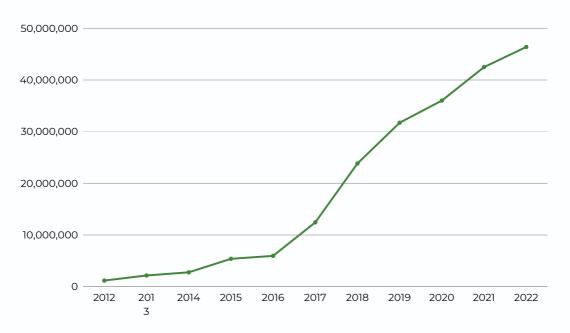


In November 2022, POI was honored with the Bhumandala Awards 2022, emerging as the winner in the 'Bhumandala Nama Rupabumi' category under the 'Organization' classification. This respected honor, organized by the Geospatial Information Agency (BIG), represents recognition from BIG—the primary government institution in Indonesia that supervises geospatial mapping endeavors. The award is presented to organizations that exhibit strong dedication to the precise and accountable designation of Indonesia's topography. The success attests to the efforts of POI, which were enabled by the proactive involvement of the OpenStreetMap community in Indonesia and the assistance provided by POI partners in furthering initiatives for free and open mapping.

Project Stats

From January 2022 to June 2023, we actively participated in expanding OpenStreetMap (OSM) data alongside the community. These metrics encompass the quantity of objects incorporated into OSM as part of POI's activity program. The OSM data is accessible for download and analysis by various stakeholders, facilitating extensive utilization of geospatial analysis.

Total Edit OSM Mapping in Indonesia



Our Achievement



2.4 million building mapped and validated



2.358 public facilities mapped



5.5 million highways mapped and validated



7.2 million population mapped



1,092 participants \mid **6** 600 \mid \triangleleft 492

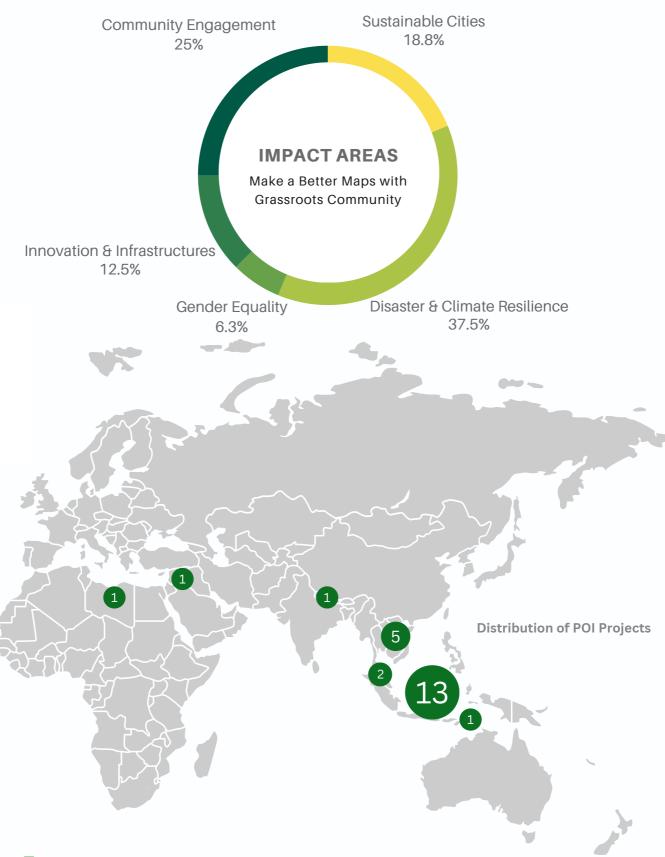


15 universities staff and students trained



11 local communities trained

Our Effort to Support Open Mapping



Highlighted Projects

Project Name	Partner	Focus Area	Scope of Work	Location	
Mapping Competition for Completeness OSM Data Gaps to Support Urban Resilience Open Mapping Hub Asia Pacific, GOJEK		Capacity Building			
	Hub Asia Pacific,	Community Engagement	Open Spatial Data Promotion and Innovation	Jabodetabek	
	OMH AP, Universitas	Community Engagement	Capacity Building	Maluku, Cianjur, Jakarta, Kendari, Jawa Tengah, Pulau Miangas, Yogyakarta	
Booster Grants for Indonesia, Community Niskala Institu	Peduli, Barakati Indonesia, Niskala Institute, TERAS, GeoSDS, Wana Karya		Open Spatial Data Promotion and Innovation		
	Lestari, Space Time UGM		Open Data Analytic		
Community Meet-Up 2022	Open Mapping Hub Asia Pacific, GOJEK, BIG, Wikimedia Indonesia	Community Engagement	Open Spatial Data Promotion and Innovation	DKI Jakarta	
OSMGeoWeek 2022	Gojek	Community Engagement	Open Spatial Data Promotion and Innovation	DKI Jakarta	
Output Course Creation	WRI Indonesia,	Sustainable Cities	Capacity Building	Kota Bandung	
Light for Silinport Safa			Open Data Analytic		
	GIB, GERAK		Open Spatial Data Promotion and Innovation		
Electric Vehicle (EV) Zone Planning Data	WRI Indonesia	Sustainable Cities	Capacity Building	Bali	
Collection	_	011100	Open Data Analytic Capacity Building	_	
SiPetaniDKI: Urban Farming as A Solution for Climate Change Adaptation in Jakarta	Dinas Ketahanan Pangan, Kelautan dan Pertanian DKI Jakarta	utan Sustainable	Open Spatial Data Promotion and Innovation	DKI Jakarta	
for Disaster Risk		Disaster &	Capacity Building		
	Climate Resilience	Open Spatial Data Promotion and Innovation	Shah Alam, Selangor		

Highlighted Projects

Project Name	Partner	Focus Area	Scope of Work	Location
Training of Trainer Community Epidemic and Pandemic Preparedness Program	Palang Merah Indonesia (PMI)	Disaster & Climate Resilience	Capacity Building Open Spatial Data Promotion and Innovation	Jabodetabek
UN Mappers Activation to Support Peace in Libya	UN Mappers, HOT	Disaster & Climate Resilience	Capacity Building Open Spatial Data Promotion and Innovation	Tripoli, Libya
Artificial & Natural Lake Crowdsource Mapping Design	UNDP Accelerator Lab Indonesia, PMO Jabodetabekpunj ur	Disaster and Climate Resilience	Capacity Building Open Data Analytic Open Spatial Data Promotion and Innovation	Jabodetabek- punjur
Involvement of Scout Community in Disaster Preparedness through OSM	Open Mapping Hub Asia Pacific, Gerakan Pramuka Indonesia	Disaster & Climate Resilience	Capacity Building Open Spatial Data Promotion and Innovation	Megamendung, Cisarua, Kabupaten Bogor
Timor Leste Open Mapping Training for Disaster Response	Open Mapping Hub Asia Pacific, WVTL	Disaster & Climate Resilience	Capacity Building	Timor Leste
Meta Road Mapping (Map With AI & MapRoulette)	Meta, HOT	Innovation & Infrastructures	Open Spatial Data Promotion and Innovation	8 countries in Asia
Historical crowdsources spatial data for sustainable development and inclusive mapping	Wikimedia Indonesia, Komunitas Aleut, Niskala Institute	Innovation & Infrastructures	Capacity Building Open Spatial Data Promotion and Innovation	Indonesia



Community Engagement

The initiatives and undertakings of the Perkumpulan OpenStreetMap Indonesia primarily revolve around engaging the OpenStreetMap community in Indonesia. This is particularly focused on promoting the adoption of unrestricted spatial data and improving proficiency across all mapping levels. We strongly believe active community participation is essential for sustaining the OpenStreetMap ecosystem in Indonesia.

Mapping Competition for Completeness OSM Data Gaps to Support Urban Resilience

Open Data & Mapping Tech Promotion and Innovation | Capacity Building

Highlights

Partners: OM HAP, GOJEK

By continuing the partnership with universities that was initiated in 2014 to address the demand for high-quality fundamental maps via participatory mapping with OpenStreetMap in Indonesia; POI and Gojek executed OSM Data Gaps Mapping activities in the Jabodetabek and Bandung City areas with the support of the Open Mapping Hub Asia Pacific - HOT. This initiative aims to augment the availability of spatial data in regions that are vulnerable to disasters, with a specific focus on strengthening the resilience of urban areas. Each participant may gain something valuable from this collaboration regarding expertise, methodology, and data integrity.

The OSM Data Gaps Mapping program is a comprehensive mapping initiative designed to tackle spatial data shortcomings in priority communities prone to disasters in Indonesia, where disparities in OSM data are notable. We believe that the younger generation is invested in and ready to participate in improving spatial data in their local surroundings. Furthermore, Gojek can leverage the results of this effort to improve OSM data in crucial urban areas, leading to enhanced navigation outcomes.

The activity implementation was conducted virtually for three months, from November 2021 to January 2022, successfully involving 95 students from 10 universities in Indonesia. Most participants are Java Island residents, such as Central Java, Yogyakarta Special Region, and East Java.

The primary objective of the event was to enhance OSM data in three mapped regions: Jabodetabek, Bekasi Regency, and Bandung City. These areas, housing millions of residents, are susceptible to disasters. Students were tasked with completing mapping projects using the HOT Tasking Manager in these regions. Additionally, we conducted map validation to improve geospatial data quality, contributing to disaster mitigation efforts and accurate navigation.



381.000 buildings mapped



4,485.6 km highway mapped



1.5 million population mapped



Community Meet-Up 2022

Open Data & Mapping Tech Promotion and Innovation

Highlights

Partner: Open Mapping Hub Asia **Pacific**

The 2022 Community Meet Up is funded through the community's ongoing Booster Grants for 2022-2023. The purpose of this assembly is to gather people who are enthusiastic about open spatial data. The event was conducted in Jakarta, and the attendees comprised a heterogeneous assemblage from Jakarta and the surroundings. The event is organized in a hybrid format to provide access to participants from diverse geographical areas, facilitating virtual participation for open spatial data enthusiasts spanning throughout Indonesia.



This activity facilitated the opportunity to share experiences and expertise related to open spatial data. GoTo offered valuable insights regarding the pivotal significance of OpenStreetMap (OSM) in developing the Gojek application's database. BIG disseminated information regarding significance of toponymic spatial data, focusing on how Indonesia's OSM community and contributors can enhance their consideration of this component while participating in open mapping on OSM.

Wikimedia Indonesia provided a perspective on the critical significance of the community, the process of its development, and strategies to amplify its impact. Additionally, the Youth Mapper Sebelas Maret University Chapter also participated alongside two other OSM contributors.







communities, speakers from the organizations, government agencies, and companies.

Furthermore, the Community Meet-Up 2022 has successfully convened OSM devotees representing a wide range of backgrounds and experience levels, enriching their understanding of the significance of community engagement and its long-term viability.

Booster Grants for Community

Open Data & Mapping Tech Promotion and Innovation Capacity Building | Open Data Analytic

Highlights

Partner: Open Mapping Hub Asia Pacific

To boost OpenStreetMap ecosystem activities in Indonesia, the Open Mapping Hub Asia Pacific, in collaboration with the Perkumpulan OpenStreetMap Indonesia, is actively working to involve communities in the country and amplify the utilization of OSM in project implementations. Regarding open mapping via OSM, a combined sum of proposals for Booster Grants was submitted by 19 local communities spanning 11 provinces. Seven communities from Java Island are chosen and provided with funding as part of the evaluation process to promote open mapping initiatives in their respective regions.

The program implementation was initiated in November 2022 and concluded in April 2023, during which time seven local communities in Indonesia established fruitful partnerships. Collaboratively, they employed and contributions to OSM, which yielded diverse outcomes spanning domains, including public health, natural resource management, disaster and climate resilience, sustainable cities and communities, gender equality, inclusivity, and capacity development.

"OSM Community in Indonesia is unique, they use OSM at the mountain, urban, rural and coastal area" Mikko Tamura (Open Mapping Hub AP - Community Manager)



Check out the project implementation report for the OpenStreetMap Booster Grant in Indonesia

OSMGeoWeek 2022

Open Data & Mapping Tech Promotion and Innovation Capacity Building

Highlights

Partner: GOJEK

The OSM Geography Awareness Week is an annual event coordinated by academics, communities, and map enthusiasts globally. It serves as a gathering to celebrate activities in the field of geography and to create maps using OpenStreetMap (OSM) as a editable and freely open-world map. collaboration with **GOJEK** Indonesia. OSMGeoWeek 2022 offered a platform for the OSM community in Indonesia to explore and heighten awareness regarding using free and open data with OSM in the country.

In addition to being a collaborative partner, GOJEK assumed a key role as a primary speaker during OSMGeoWeek 2022. QGIS Indonesia also joined as a speaker to expand participants' understanding of utilizing OSM in the largest transportation company and employing free and open tools for spatial data management. During this session, POI shared insights into Indonesia's road network mapping process through Al-assisted mapping, collaborative project with HOT funded by META.

Apart from being a collaboration partner, GOJEK took on a significant role as a primary speaker in OSMGeoWeek 2022. QGIS Indonesia also participated as a speaker to enhance participants' comprehension of utilizing OSM in the largest transportation company and utilizing free and open tools for spatial data management. In this session, POI provided insights into the process of mapping road networks in Indonesia through Alassisted mapping, highlighting a collaborative project with HOT funded by META.

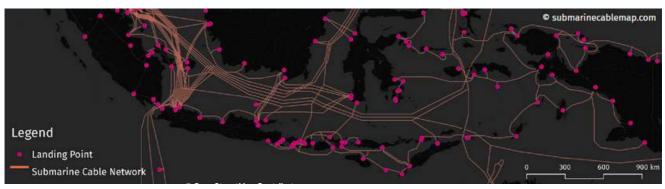


51 Participants in OSMGeoWeek 2022

The winners of Community Story:

Zainab Ramadhanis - Exploring the Quality of OpenStreetMap Road Data in Jakarta Ahmad Zaenun Faiz - #30DayMapChallenge with OpenStreetMap

Rima Al Hazmi - Highway in Batu Island



Ahmad Zaenun Faiz - #30DayMapChallenge



Sustainable Cities

POI actively contributes to realizing Sustainable Cities by utilizing free and open spatial data, collaborating with local communities, government, and academia. This is undoubtedly an effort to support the SDGs' initiatives proclaimed by global organizations. It illustrates that urban issues and challenges can be addressed through the availability and analysis of free and open geospatial data via participatory mapping.

Crowd Source Spatial Data for Support Safe and Sound Cities

in Bandung Open Spatial Data Promotion and Innovation | Capacity Building | Open Data Analytic

Highlights

Partner: WRI Indonesia, S2Cities GIB, GERAK, ICLEI, Pemerintah Kota Bandung



Youth Participants for S2Cities Bootcamp in 2022

The open mapping initiative, conducted from March 2022 to June 2023, is a collaboration involving WRI Indonesia, GERAK, ICLEI, and the City Government of Bandung. The objective of the S2Cities Digital Map project is to promote a sustainable and secure urban environment in Bandung by enhancing the capabilities of the youth. The program aims to instill awareness among the youth to realize a secure and comfortable Bandung.

Perkumpulan OpenStreetMap Indonesia's primary role is to foster the development of skills and ideas among the youth, empowering them to contribute to creating a secure and comfortable city in Bandung. The project includes various sub-activities such as training. data collection, the establishment of a monitoring platform using Ushahidi, and the development of a webGIS to visualize the analysis of the project's outcomes.

This is accomplished using OSM and Ushahidi to collect spatial data related to community and youth reports on phenomena and events occurring in the study area.

By employing both tools, young individuals can pinpoint on-site challenges, visualized as an accessible open map. This map serves as a resource for local governments, providing data and information to inform policies aimed at enhancing the safety and comfort levels of the city.

In the second year, POI is actively involved in realizing a sustainable program for youth communities and local governments, utilizing and monitoring urban issues through the developed S2Cities Digital Map. This entails organizing Training of Trainers activities and crafting guides, enabling youth and local governments to continue the established program in Bandung.

Through this initiative, the local government demonstrates significant interest in utilizing open mapping tools to support regional programs. This interest is apparent in ongoing discussions about leveraging Ushahidi in a livable city program spearheaded by a government agency, specifically the City Planning, Research, and Development Agency of Bandung.

Field Events Report



Road Safety 232 Reports



Crime Safety 69 Reports



Environmental Safety 95 Reports



Disaster Safety Public Event 16 Reports



104 Reports



Bullying Case 7 Report 7 Reports

Facilities Report





133 Reports



Security 228 Reports



157 Reports



Transportation 447 Reports



Education 106 Reports



Waste Management



Water

https://s2city-bandung.ushahidi.io/views/map

SiPetaniDKI: Urban Farming as A Solution for Climate Change **Adaptation in Jakarta**

Open Spatial Data Promotion and Innovation | Capacity Building

Highlights

Partner: Food Security, Marine Affairs and Agriculture Agency Special Capital Region of Jakarta

DKI Jakarta Food Security Information System Map or Sistem Informasi Peta Ketahanan Pangan DKI Jakarta (SiPetani DKI) was initiated in 2017 as an effort to address food security and climate change crises in Jakarta by encouraging the community to engage in urban farming. Complimentary seeds for vegetables, fruits, and seasonings are provided through this initiative. At the program's inception, Jakarta's residents who desired free seedlings could pick them up directly at the Technical Implementation Unit or Unit Pelaksana Teknis office in South Jakarta.

However, due to the COVID-19 pandemic, SiPetani DKI's seed distribution process has completely shifted to an online platform. In collaboration with POI, a dynamic website for SiPetani DKI has been developed using the Ushahidi platform, which is free and open-source. Currently, POI and DKPKP DKI Jakarta (Food Security, Marine Affairs and Agriculture Agency Special Capital Region of Jakarta) persist in improving SiPetani DKI, addressing the needs of residents, farmers, and DKPKP staff involved in urban farming in DKI Jakarta.



From September 30, 2020, to the present, anyone requesting seeds-whether individuals communities—must access through the website https://openstreetmap.id/dkpkp. To make it easier for the public to fulfill their seed needs, 14 plant seed gardens located in five Jakarta cities have offered a variety of seeds, including biopharmaceutical plants (medicinal plants), vegetables, and fruit plants.

Once a request has been submitted, these seedlings will be dispatched via online delivery services, with the shipping costs covered by the resident who request the seeds. The map feature on SiPetani DKI proves extremely beneficial for Jakarta residents when ordering seeds, as it allows them to freely select the nearest seed garden location to their residence, helping estimate shipping costs.

Citizen Reports on SiPetani DKI



Total 205 reports with six categories



109 of 205 reports are about urban farming



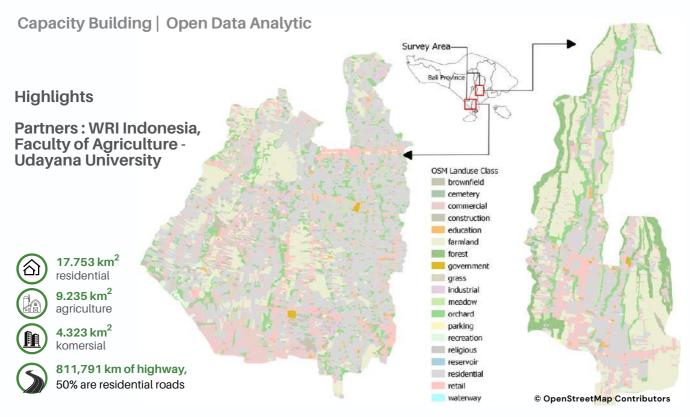
47 of 109 urban farming are located in the communities' alleys and private yards



16 seed gardens are distributed in SiPetani DKI to estimate the distance to their home

https://openstreetmap.id/dkpkp

Electric Vehicle (EV) Zone **Planning Data Collection**



The joint effort between World Resource Institute (WRI) Indonesia and POI in this initiative is aimed to acquire detailed-scale datasets on land use, road widths, and road classifications for the Collection of Data Related to Battery-Based Electric Vehicle Zoning Plans (KBLBB) in Bali Province. The research scope encompasses nine villages in Ubud and North Kuta Villages.

During the field data collection phase, we partnered with the Faculty of Agriculture at Udayana University. We engaged with eight students to conduct surveys and input data in the designated area. Hence, local expertise is essential to enhance the data and information related to the collected objects.

The entire data collection process spanned eight days. Using a complex data engineering procedure, this undertaking produced datasets pertaining to road networks and land use in the study area.







Disaster & Climate Resilience

Perkumpulan OpenStreetMap Indonesia (POI) has consistently worked to enhance disaster resilience and climate change adaptation. Through a range of collaborative initiatives, POI and its partners aim to promote the significance of open spatial data in enhancing disaster resilience and addressing climate change challenges within communities.

Disaster Response Mapathon Open Spatial Data Promotion and Innovation | Capacity Building

Highlights

POI actively promotes disaster resilience and climate change efforts by advocating for participatory mapping activities. The organization actively engages in mapathon activities, collaborating with international and local partners. Using the open mapping tool Tasking Manager, mapathon facilitates mapping disasteraffected areas, aiding in on-site victim evacuation. approach involves reaching out to communities and mapping volunteers for active participation disaster in response humanitarian actions. These include peace support in Libya, floods in Timor Leste, and earthquakes in Cianjur (Indonesia), Turkey, and Syria.

This commitment reflects POI's ongoing dedication to collaborating with the community and utilizing open spatial data to enhance disaster resilience and address climate change challenges comprehensively.

1. UN Mappers Activation to Support Peace in Libya

POI collaborated with UN Mappers to organize a mapathon activity to map buildings in Tripoli, Libya. This initiative aimed to contribute to global peacekeeping efforts, specifically in Tripoli.

The mapped building data created a 3 dimensional Tripoli City model, facilitating field visualization and location analysis.

The online mapathon was conducted via the Tasking Manager Project 12289 at https://tasks.hotosm.org/projects/12289 on June 9, 2022, from 15:00 to 17:00 GMT+7.



1,200 buildings mapped



40 volunteer mappers

2. Timor Leste Flood



POI played a crucial role in a flood response through mapathon in Timor Leste conducted in July 2022, collaborated with Open Mapping Hub Asia Pacific -HOT. The severely affected cities, namely Covalima, Vigueque, and Manufahi, were promptly mapped during the mapathon in Indonesia to facilitate disaster analysis. The mapping communities and volunteers utilized the Tasking Manager, accessible at https://tasks.hotosm.org/projects/12944.



85,996 buildings mapped



222 km of road mapped



173 volunteer mappers

Disaster Response Mapathon Open Spatial Data Promotion and Innovation | Capacity Building

3. Cianjur Earthquake



POI organized a mapathon with mapping volunteers following the 5.6SR earthquake in Cianjur on November 21, 2022. The data gathered during this mapathon included information on buildings and roads, which will be utilized for in-depth analysis of potential damage and to aid victims. The Tasking Manager was employed to assist in evacuating victims and assessing the extent of infrastructure affected.

The mapathon details can be accessed at https://tasks.hotosm.org/projects/13822.



106,979 buildings mapped



326 km of road mapped



180 volunteer mappers

4. Mapathon Turkiye Earthquake



POI played an active role in responding to the earthquake in Turkey. The earthquake, with a magnitude of 7.8SR, struck southern and central Turkey and western Syria, causing extensive infrastructure damage and resulting in thousands of casualties in the affected areas.

Through a coordinated global mapathon, buildings and roads were rapidly mapped to facilitate a swift and comprehensive analysis of the situation.

The projects of the Tasking Manager can be accessed at bit.ly/TurkiyeEQ2023.



2,000,000 buildings mapped



71,000 km of road mapped



9000 volunteer mappers

Shah Alam Mapathon for Disaster Risk Reduction

Open Data & Mapping Tech Promotion and Innovation | Capacity Building

Highlights

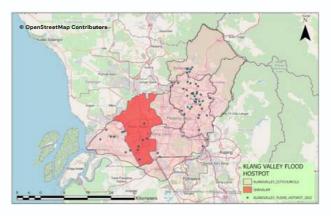
Partners: U-INSPIRE Indonesia and **U-INSPIRE Malaysia**

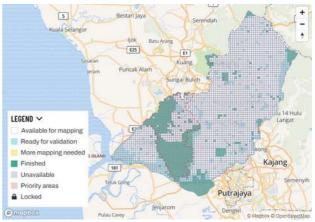
Shah Alam, situated in the Klang Valley, is susceptible to flooding. The absence of exposure data complicates planning for prevention and risk management in the region. The mapathon was organized to aid in identifying settlements for flood risk prevention and management planning.

This Mapathon continued the training conducted for U-Inspire Malaysia on March 29-30, 2022, via Zoom. It provided an excellent platform to establish a community of mappers proficient in using a free and open platform for assessing disaster aspects by digitizing objects like buildings in the Shah Alam area. The data generated can be valuable for disaster preparedness and response, specifically focusing on flood disasters, the most common type in Malaysia.

The comprehensive data available in OpenStreetMap (OSM), including buildings, road networks, structural information, and other relevant elements, can be further analyzed for Disaster Risk Reduction to support relevant agencies.

Following the mapathon activity, Perkumpulan OpenStreetMap Indonesia validated the Shah Alam tasking manager to ensure the high quality and accuracy of the OpenStreetMap data.





Mapping Statistics of Mapathon Results



41,286 buildings mapped



28 volunteer mappers

Artificial & Natural Lake Crowdsource Mapping Design

Open Spatial Data Promotion and Innovation | Capacity Building | Open Data Analytic

Highlights

Partners: UNDP Acc Lab Indonesia and PMO Jabodetabekpunjur

Findings from Field Survey of 170 Lakes in

Jabodetabek

14 lakes land conversion



73 lakes 40% have different toponymy in the field



7 lakes

inaccessible/not given permission by private managers



76 lakes 40% has not been managed by the government and there is no steward so that it experiences water pollution



41 lakes 24% of the sites experienced flooding in 2020 and 2021



91 lakes 53% of the sites have tourism potential and are visited by residents

Using the open and free Ushahidi platform, Perkumpulan OpenStreetMap Indonesia developed a citizen science-oriented approach to collect real-time data in Jabodetabekpunjur. The initiative aims to enhance in-situ data and information availability for urban flood disaster management. Project Management Office (PMO) Jabodetabekpunjur and UNDP Acc Lab Indonesia are working to optimize the utilization of situ data in Jabodetabekpunjur for flood mitigation analysis.

This undertaking was implemented from March 2022 to September 2022, covering 170 sites across eight districts/cities. The data collection process involved 12 zones, with local communities actively participating as enumerators. Leveraging Ushahidi and Mapillary, the team identified qualitative data developed by PMO Jabodetabekpunjur and UNDP to be documented in the designated 170 sites within the respective zones.





Ciantra Lake (left) and Telaga Subur Lake (right).

The transformation of lakeside areas utilized for rice fields by residents, as seen in Ciantra Lake in South Cikarang, and repurposed as a restaurant facility at Telaga Subur Lake in Depok.

https://situ-jabodetabekpunjur.ushahidi.io

According to the Ministry of National Development Planning/National Development Planning Agency or BAPPENAS (2021), qualitative data comprises information about the site's physical state, economic activities within the community, presence of nearby communities, flood mitigation efforts, governance, and community participation.

Furthermore, this initiative serves as a compelling example of how open mapping can offer solutions related to the government's policy direction in situ management. It also forms the basis for further studies grounded in significant field findings openly accessible to and involving the community.

The local community and the public were enthusiastic about participating in lake data collection activities. To address sites inaccessible to enumerators, a Public Mapathon was conducted, enabling anyone to contribute by submitting situ reports on Ushahidi. This week-long mapathon participants not only from Jabodetabekpunjur area but also from Padang, Riau, Cirebon, Semarang, and Kediri. Within this short period, a total of 58 situ reports were successfully gathered.

Training of Trainer Community Epidemic and Pandemic Preparedness Program Open Data & Mapping Tech Promotion and Innovation | Capacity Building

Highlights

Partner: Indonesian Red Cross

2019, the Perkumpulan OpenStreetMap Indonesia (POI) and the Indonesian Red Cross (PMI) collaborated to provide training on the use of QGIS and OpenStreetMap (OSM) for PMI volunteers in various regions. Currently, PMI volunteers are still utilizing OSM to facilitate collaborative spatial data mapping, which aids in preparedness and disaster response endeavors.

As part of the Community Epidemic and Pandemic Preparedness Program (CP3) in 2022, mapping activities are set to be carried out in 16 new villages identified by the CP3 program. To meet this objective, volunteers in the respective regions are undergoing training to conduct mapping using OSM in their areas. Experienced facilitators from various regions will oversee the mapping implementation in their respective areas until the completion of village maps.

To ensure the smooth progress of the mapping process, the designated PMI facilitators must undergo refresher training on OSM, JOSM, and QGIS. Subsequently, these facilitators will train volunteers from their respective regions and coordinate Mapathon events to finalize the spatial data for each village. The Mapathon activities and OSM data validation will be independently conducted, involving PMI volunteers from each region, with the collaborative aim of creating village maps from February to April 2022. The participatory mapping in each village will utilize the Tasking Manager facilitated by POI.

This initiative aims to foster mutual support between PMI and POI, contributing to the OSM community in Indonesia and engaging in humanitarian activities that leverage OSM data as a foundational database.

Pandeglang district 1. Cigadung Village 2. Juhut Village 3. Pagerbatu Village 4. Saruni Village **Bogor City** 1. Mekarwangi Village 2. Baranangsiang Village Boyolali district Tabanan district 3. Tanahbaru Village 1. Singosari Village 1. Beraban Village 4. Tegalgundil Village 2. Siswodipuran 2. Kukuh Village Village 3. Samsan Village 3. Sumberagung 4. Bengkel Village Village 4. Banyuanyar Village Mapathon Area Coverage and Field Survey

Involvement of Scout Community in Disaster Preparedness through OSM

Open Spatial Data Promotion and Innovation | Capacity Building

Highlights

Partners: Open Mapping Hub Asia Pacific, Indonesian Scout Movement

In April 2022, the Indonesian Scout Movement, in collaboration with the Open Mapping Hub Asia Pacific (OM HAP), committed to providing OSM training and exploring the potential of open mapping to support youth members of the Indonesian Scout Movement in pre- and postdisaster humanitarian activities. POI conducted capacity-building training and field surveys in Bogor Regency, focusing on Cipayung Girang Village, Megamendung.

POI and 19 participants from the Indonesian Scout Movement emphasized the significance of free and open spatial data for effective disaster management. They demonstrated how scouts could actively engage in such activities. The introduction of OpenStreetMap and field data collection enabled scouts to easily adapt to mapping technology for organizational support. displayed active involvement, **Participants** enthusiasm cooperation, and throughout activities, showcasing a rapid understanding of provided materials, organized conduct, and a commitment to overcoming obstacles, particularly during field survey simulation activities.



POI and OM HAP aspire to see other scout branches in Indonesia replicate similar initiatives in the future. This aims to support the Indonesian Scout Movement's frequent humanitarian efforts across Indonesia and promote the utilization of free and open mapping to meet the demand for spatial data.



4,510 buildings mapped



25.1 km of road mapped



50 mapped public facilities



Timor Leste Open Mapping Training for Disaster Response

Capacity Building

Highlights

Partners: Open Mapping Hub Asia **Pacific and World Vision Timor Leste**

In support of enhancing disaster resilience in Timor-Leste, Open Mapping Hub Asia Pacific, in collaboration with World Vision Timor-Leste and POI, conducted a series of capacity-building sessions for diverse regional stakeholders. This initiative carried out in August 2022, aimed to introduce the concepts of open mapping and OpenStreetMap (OSM) to participants, including representatives from the government, universities, NGOs, and corporations.

The program combined training sessions, field surveys, and analysis of disaster map creation, spanning approximately two weeks. Participants from all sectors showed great enthusiasm for OSM and other open mapping platforms, appreciating their free and open accessibility. This was particularly well-received bv aovernment agencies that strongly endorsed the initiative. The potential for developing an OSM community in Timor-Leste emerged as a tangible outcome directly realized through this activity.



Under the facilitators' guidance, all participants successfully mapped critical infrastructure in three districts (Bobonaro, Aileu, and Baucau) in Timor-Leste. This initiative marked commencement of the Timor-Leste OSM community, supported by World Vision Timor-This community actively knowledge and conducts training on OSM and Open Mapping in Timor-Leste, catering to universities, government entities, and other institutions.





Innovation & Infrastructures

In implementing the program, Perkumpulan OpenStreetMap Indonesia strives to develop innovations for the free and open use of technology and knowledge in mapping. It aims to generate widespread impact for people, communities, and multi-stakeholders in implementing activities, as well as fulfill the need for geospatial analysis in providing solutions and responses to sustainable development.

Meta Road Mapping (Map With Al & MapRoulette)

Open Spatial Data Promotion and Innovation

Highlights

Partners: Meta and Humanitarian OpenStreetMap Team

2017. Perkumpulan OpenStreetMap Indonesia (POI) has maintained a dedicated team to support the utilization of machine learning in mapping road networks and buildings. This initiative has been globally promoted under the campaign #MapWithAi, covering Indonesia and multiple countries across Asia, Africa, and Latin America. Benefiting from Meta's development of the OpenStreetMap (OSM) editor tool, the POI team has contributed to almost every region in Indonesia and several Asian nations, including Thailand, Malaysia, Vietnam, and India.

The project incorporates various open mapping tools developed by Meta, the Humanitarian OpenStreetMap Team (HOT), and other entities, such as Maproulette, Kartaview, and Mapillary. The primary tools employed are the RapiD Editor and MapWithAi Plugin, directly developed by Meta and openly licensed.

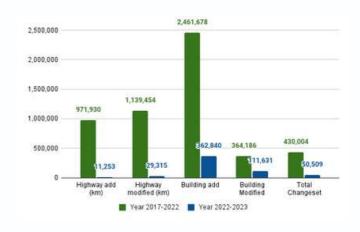
Main Focus Each Countries



In addition to utilizing AI to add new data to OSM, POI maintains a Quality Assurance team responsible for periodically verifying the quality of the data uploaded to OSM, ensuring that the project's output meets high standards. One method for quality assurance involves field data collection by delineating the road network, ensuring alignment between real-world conditions and the appearance in images. Samples collected serve as guidelines for the team to comprehend an object's context based on its field characteristics, comparing it with its appearance in images and Al-generated output.

The project successfully edited over 2 million kilometers of roads, encompassing new and existing data enhancements. Additionally, the contribution of 2 million buildings marks a significant accomplishment for the project.

While the use of AI in mapping is expected to expand, this project acknowledges AI as a tool that streamlines the digital mapping process by humans. It underscores the importance of ensuring the quality of the data produced.



Historical Crowdsources Spatial Data for Sustainable Development and Inclusive Mapping

Open Spatial Data Promotion and Innovation | Capacity Building

Highlights

Partners: Wikimedia Indonesia and Wikimedia Alliances Fund

Perkumpulan OpenStreetMap Indonesia (POI) actively backs a project carried out by Wikimedia Indonesia (WMID) focusing on the digitization of Galleries, Libraries, Arts, and Museums (GLAM) through innovative mapping, integrating OpenStreetMap (OSM) and Wiki Data. Executed from July 2022 to June 2023, this initiative involved collaboration between POI and WMID, engaging students from multiple universities across Indonesia to contribute to the cause.

Ten universities participated in various activities in this project, such as Training and Edit-A-Thon sessions. These events encompassed capacitybuilding exercises, knowledge-sharing, and friendly competitions to foster collaboration and enthusiasm among the youth contributors.

The initiatives for capacity building and knowledgesharing aim to raise awareness among the youth about the presence of GLAM institutions in their surroundings. The goal is to stimulate cultural tourism visits in various regions of Indonesia, which have declined since the onset of the COVID-19 pandemic. All these activities are conducted online, enabling youth to actively participate in the digitization process of GLAM institutions into OpenStreetMap and WikiData.

Beyond educational efforts directed at students, offline engagement was extended to youth communities in Bandung. Various local communities, particularly those interested in arts and culture, were invited to participate in workshop activities. These workshops attracted 31 participants, including members from seven local communities, 11 students, and 13 individuals.



OSM and WikiData Training Statistics (Online and In-Person)



84,632 buildings mapped



905 Mapped GLAM Objects



213 Youth trained



2,553 WikiData changes



>300 New OSM Accounts

Historical Crowdsources Spatial Data for Sustainable Development and Inclusive Mapping

Open Spatial Data Promotion and Innovation | Capacity Building

Highlights

Partners: Wikimedia Indonesia and Wikimedia Alliances Fund

As a creative approach to leveraging GLAM data, POI and WMID organized a video and infographic competition for youth nationwide, encouraging participants to share their submissions on their respective social media platforms. This strategy aimed to enhance the dissemination of information regarding GLAM institutions and their digitization, ensuring a broader and more widespread awareness among the public. As a result of this initiative, the youth community realized the abundance of GLAM institutions in their vicinity.

Some GLAM facilities, particularly libraries, have experienced positive transformations in amenities and designs, becoming more attractive accommodating for various activities compared to previous years. In an innovative approach to utilizing GLAM data, POI and WMID organized a nationwide video and infographic competition for youth to share on social media platforms. This strategy aimed to amplify the dissemination of information about GLAM and its digitization, increasing public awareness. The outcome of this initiative was the realization within the youth community that numerous GLAM institutions are present in their vicinity. Notably, one such institution, like the library, has evolved to include facilities and designs that resonate with the youth, creating a comfortable environment for diverse activities compared to a few years ago.



webgis glam https://glam.openstreetmap.or.id/

Our Community

The OpenStreetMap community in Indonesia continues to grow, partly due to the community's existence and contributions to OSM in Indonesia. Perkumpulan OpenStreetMap Indonesia (POI) always strives to provide a platform for the community to contribute to improving the quality and quantity of OpenStreetMap data in Indonesia. The following are some statistics related to the existence of the community and contributors, as well as their activities to advance and utilize OpenStreetMap (OSM) data in Indonesia, which POI consistently endeavors to support for its sustainability

Our impacts on the community



17 events



8 local communities



16,686 active contributors



2,781 monthly average active contributors



257 monthly average new mappers



10 volunteer events

During the 2022/2023 period, there were a total of 16,686 contributors actively involved, averaging around 2,781 contributors per month. Continuous monitoring of new mappers revealed an addition of approximately 257 new mappers each month throughout this period. Furthermore, ten volunteers from the community successfully collaborated with POI in implementing various activities alongside the community. Active local communities engaging in collaborative efforts with the OSM community in Indonesia include Barakati Indonesia, Komunitas TERAS, Maluku Peduli, Komunitas Aleut, Niskala Institute, SpaceTime UGM, GeoSDS, WanaKarya Lestari.



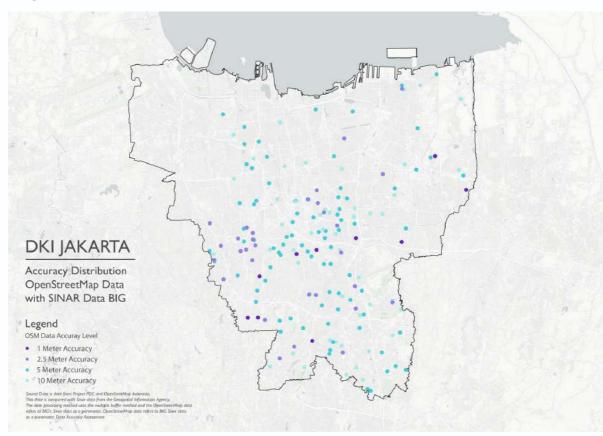
Data Analytic

Capacity Building | Open Data Analytic | Open Tech Innovation

In 2022, Perkumpulan OpenStreetMap Indonesia (POI) was honored with the Bhumandala Awards for its significant contributions to toponymic data. Significant findings can be emphasized by conducting research and analysis on the toponymic data in OpenStreetMap (OSM) in relation to the overall landscape.

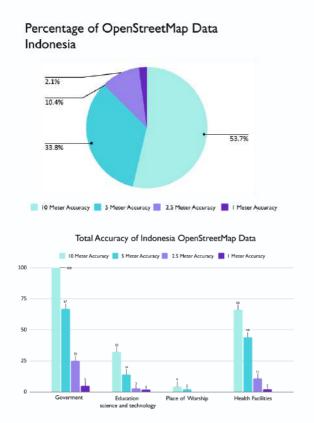
In total, 3,436 entries comprise the analyzed data, which is classified as follows: Government Data, Educational Data, Religious Facilities Data, and Health **Facilities** Data. Adjustments implemented following the distribution of SINAR data. The analysis centered on 376 entries after simplification by the SINAR data distribution. Government Data possesses the most samples among the different categories, amounting to 197 in total. In contrast, Religious Facilities is the smallest sample count, category with the comprising a mere six.

The accuracy distribution depicted on the map suggests an overall moderate accuracy level of OSM data in DKI Jakarta, with an average accuracy of around 5 meters spread across almost the entire DKI Jakarta area. Nevertheless, certain areas exhibit higher accuracy levels, ranging from approximately 1 to 2.5 meters, although this higher accuracy is limited in distribution. Conversely, regions are characterized by lower accuracy, particularly in the city center and the outskirts of Jakarta. This inconsistency is attributed to device distortion, primarily caused by tall building structures that obstruct the GPS signals used by surveyors. Furthermore, the lack of satellite signal reception in suburban areas contributes to significant distortion, deviating significantly from the actual accuracy.



Data Analytic

Capacity Building | Open Data Analytic | Open Tech Innovation

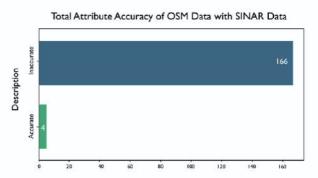


We evaluate the data quality of OpenStreetMap (OSM) by examining the accuracy of positional and thematic (toponym), compared to SINAR data which is authorized by Geospatial Information Agency (BIG).

To evaluate the positional accuracy of public facilities data in OSM, we analyzed 377 samples, comparing them with SINAR data as the reference dataset. The results show that 53.7% of the positional accuracy of OSM public facilities data is within 10 meters, and 35.8% have an accuracy of 5 meters.

In the following analysis, we assessed the thematic accuracy to determine how accurately objects are named in 283 OSM data with designated object name values.

The data sample was chosen to facilitate a comparative analysis between OSM data as the test set and SINAR data as the reference set. The evaluation method for thematic accuracy employs binary notation, with "True" and "False" or "0" and "1" labels. In this context, "0" indicates that the data lacks similarity, while "1" signifies that the data shows similarity.



The evaluation of thematic accuracy in OSM data reflects a low score. Out of 283 samples, merely four conform to BIG standards in terms of names, 166 samples differ, and 133 samples were not subject to evaluation. The limited alignment between OSM and SINAR data is attributed to the absence of a local OSM community in Indonesia, unfamiliar with toponym determination.

In general, it can be concluded that SINAR and OSM data complement each other, with OSM data being more comprehensive in certain areas due to active community involvement. The expectation is that the evaluation results, focusing on positional and toponym accuracy, will heighten awareness among local OSMcontributing communities about the significance of data quality. The hope extends to the adoption of standards set by BIG by OSM contributors in Indonesia, fostering the incorporation of highquality data into OSM, particularly in Indonesian regions.

Data Quality

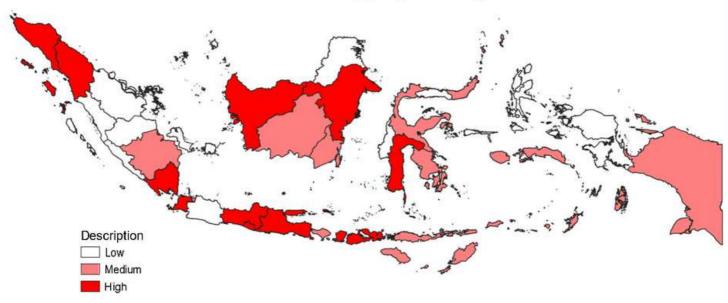
Capacity Building | Open Data Analytic | Open Tech Innovation

One of our objectives is to ensure the preservation of precise spatial information by increasing awareness among the OSM community in Indonesia and generating highquality OpenStreetMap (OSM) data. POI regularly makes efforts to reduce errors in OSM data, to improve its usability for a wide range of applications. The analysis has identified ten errors commonly found in OSM data from Indonesia.

Among these, issues related to roads and buildings overlapping are the most widespread, followed by errors involving intersecting structures.

TOP 10 MOST COMMON ERRORS						
issues	Q1	Q2	Q3	Q4*		
overlapping building	624,942	178,345	1,981,269	178,345		
objects overlap	428,348	127,265	1,291,640	127,265		
deprecated	276,188	73,449	871,145	73,449		
combinations	216,938	71,228	641,115	71,228		
street numbers	136,221	43,542	398,698	43,542		
duplicate geometry	126,008	28,912	382,299	28,912		
not-connected highway/cycleway	116,405	38,572	376,899	38,572		
approximate way	89,180	28,428	264,726	28,428		
orthograph	84,498	27,550	261,384	27,550		
elevation	58,307	19,442	174,865	19,442		

Error Distribution Overlapping Buildings in Indonesia



Source: Osmose (October 26, 2023)

Data Quality

Capacity Building | Open Data Analytic | Open Tech Innovation

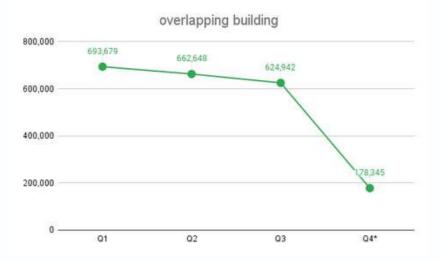
Our Achievement in Data Quality Assurance Effort in Indonesia

We are committed to continuing the positive trend of reducing errors in collaboration with the OSM community in Indonesia. Since January 2023, we have observed positive results with a decrease in errors related to overlapping buildings and roads, as well as overlapping buildings.

Most-Used Validation Tools



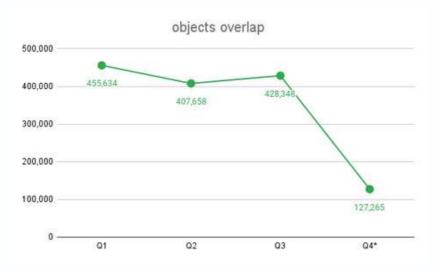
Overpass Turbo







JOSM





Osmose



MapRoulette

Social Media

POI has achieved widespread support for its initiative to map Indonesia with the communities by fostering a strong network of individuals with diverse backgrounds via social media platforms.

From 2022 to mid-2023, POI gathered a cumulative reach of 52,839 on Instagram, 9,672 on Facebook, 12,700 impressions on Twitter, 4,216 visitors on LinkedIn, and 10,000 YouTube.

This indicates the positive impact received community in POI's continuous efforts to engage the public in mapping Indonesia.



52,839

Total Reach



12,700

Total Impressions



9,672 Total Reach

10,000

Total Viewers



Views - Jan 1, 2022 - Jun 30, 2023



Apa itu OpenStreetMap? | What is O ...



Episode 2 - Pengoperasian Situs Op...

Menambahkan Data Fasilitas Umu...



4,216 **Total Page Views**

Social Media

Beyond its core goals of education, OpenStreetMap promotion, fostering contributions to free and open mapping, POI's social media platforms have played a crucial role in mobilizing the community for disaster response efforts both in Indonesia and globally. This involves mapping infrastructure, roads, and buildings in affected areas. The rapid and comprehensive response mapping has proven highly valuable for the government and various stakeholders in evacuating victims and assessing the impact of disasters.

active engagement continued since the earthquakes in Cianjur, the flooding in Timor Leste, the eruption of Mount Semeru, and the consequences of Cyclone Seroja in East Nusa Tenggara (NTT). These calls to action are implemented to promote mapping in the affected areas; the subsequent data will be of great worth in evaluating potential and determining damage necessary aid for individuals affected by disasters. POI is dedicated to persisting in its support for the Indonesian community.



Social Media

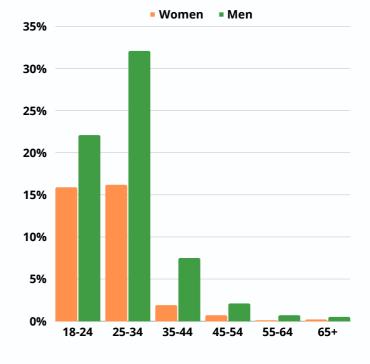
Analysis of demographics reveals that POI has the widest social media impact in the DKI Jakarta region, the most densely populated metropolitan city in Indonesia. This implies a substantial interest among DKI Jakarta residents in utilizing spatial data. Importantly, this appeal is not confined to DKI Jakarta alone; residents from other regions, including Bandung, Yogyakarta, Semarang, Surabaya, and even Makassar, also demonstrate a comparable level of interest. This underscores the considerable influence of POI's social media presence, reaching across the entirety of Indonesia.

Follower demographics @ Location * Jakarta Metropolitan Area, Indonesia - 671 (33.6%) Greater Bandung, Indonesia - 173 (8.7%) Greater Yogyakarta, Indonesia - 158 (7.9%) Greater Semarang, Indonesia · 73 (3.7%) Greater Surabaya, Indonesia · 45 (2.3%) distribution Concerning gender on

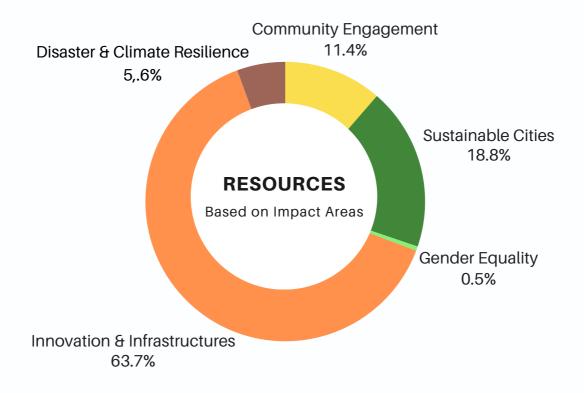
Facebook and Instagram, the majority of POI's audience comprises males at 64.9%, with females accounting for 35.1%. Despite having a higher reach among males, POI is committed to ensuring equal and inclusive representation for women in the digital and open mapping landscape. Several initiatives have been implemented to address the interests and needs of diverse groups, with OpenHerMap being one of the activities specifically designed to engage and include women's groups.

The examination of age demographics on Facebook and Instagram for POI reveals that the predominant audience falls within the youth age range of 18-24 years and the age group of 25-34 years. This implies that POI's programs and activities hold substantial appeal among the youth and productive age communities. The emphasis on providing pertinent and valuable information and content is well-aligned with the primary interests and needs of this age group in free and open spatial data and technology.





Financial Report 2022-2023



Impact Areas	Activity Budget (IDR)	
Community Engagement	499,909,870	
Sustainable Cities	828,193,977	
Innovation & Infrastructures	2,799,948,890	
Disaster & Climate Resilience	245,317,203	
Gender Equality	21,791,941	
Total Expenses	4,395,161,881	

Financial Report by January 2022 - June 2023

Impact Partners

Capacity Building | Open Data Analytic | Open Tech Innovation

With Special Thanks to Our Donor



















Our Deepest Gratitude to Our Partners





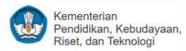






































































Capacity Building | Open Data Analytic | Open Tech Innovation

JOIN US

- openStreetMap Indonesia
- Komunitas OpenStreetMap Indonesia
- openstreetmap.id
- OSM_ID
- openstreetmap.or.id
- perkumpulan@openstreetmap.id





