

DISASTER ACTIVATION · NEPAL · 26 AUGUST 2026

MAPPING THE NEPAL FLOODS

Flash floods and mudslides swept down the Lhende Khola valley into the Bhoté Koshi, in Rasuwa district. By 7 September at least 1,355 people had died and 4,996 were missing. Timure and Syaphrubesi were hit hardest, and most map data for them was missing.

< 24 HRS

Flood to first mapping project

338

Experienced volunteer mappers engaged

799

Volunteer validators in MapSwipe

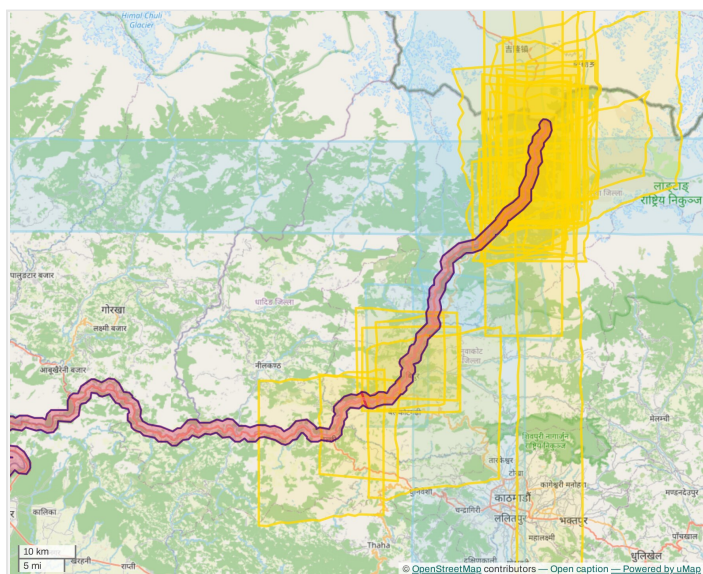
20,100

Buildings added to OpenStreetMap

Activation record

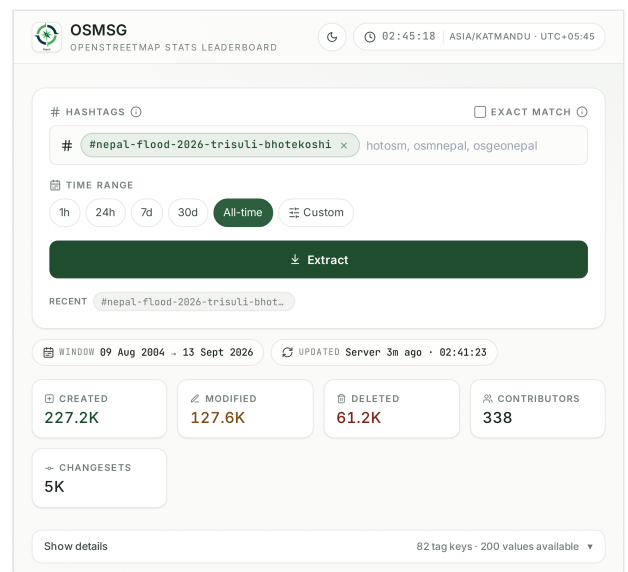
Sources: OSM wiki, MapSwipe

26 Aug	27 Aug	28 Aug	29–31 Aug	1 Sep	2–7 Sep
Flash flood	Mapping campaign launched on Tasking Manager. Humanitarian datasets published on HDX. Vantor agreed to release imagery.	AI-assisted damage assessment published on HDX	Mapping expanded to the lower river corridor. Settlement extents mapped at the request of Nepal's disaster authority (NDRRMA).	First four projects 100% mapped and validated	Four MapSwipe projects opened to validate the AI damage results



umap.hotosm.org, Nepal Floods 2026.

Red: observed flood extent of 27 Aug. Yellow: after-flood Vantor images.

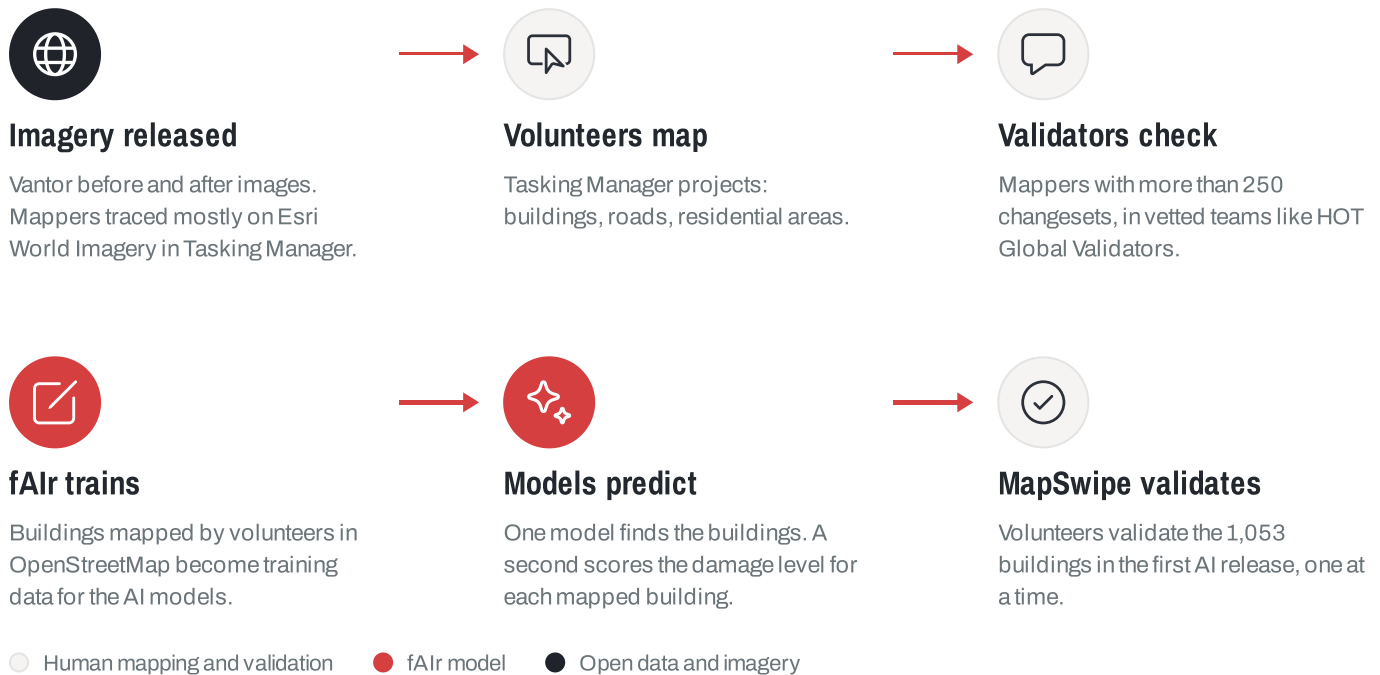


Campaign totals on osmsg.osgeonepal.org, 13 Sep 2026.

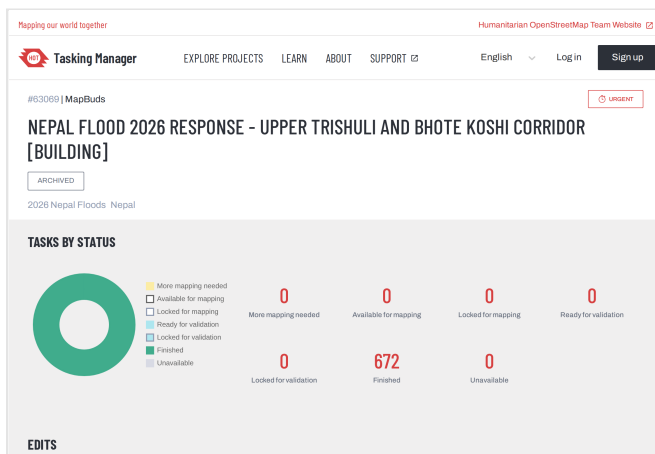
WORKFLOW

HOW IT WORKED

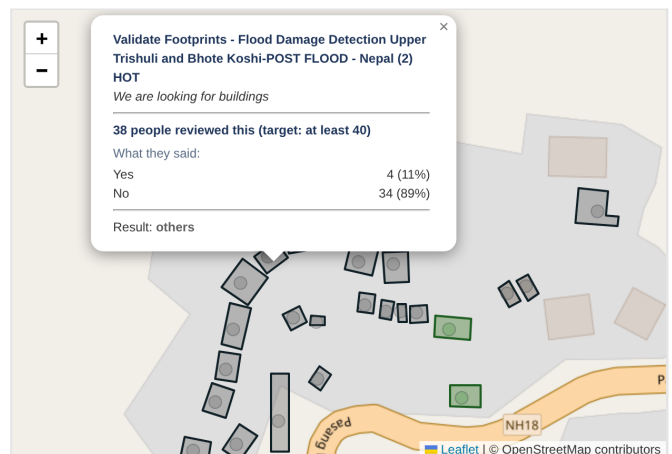
Volunteers mapped from satellite images. fAIr models learned from that mapping: one found the buildings, the other scored the damage level per building. Volunteers then validated the AI results.



↻ Mapped features go into OpenStreetMap. HOT rebuilds those layers on HDX every day.



tasks.hotosm.org, project 63069, upper corridor buildings. 672 of 672 tasks finished. 7 of the campaign's 9 projects finished 100% mapped and validated.



hotosm.github.io/mapswipe-results-analyzer, post-flood project. Each footprint is reviewed by dozens of volunteers, and the majority decides.

How damage is recorded in OpenStreetMap. Mappers keep the outline of a destroyed building, change building=yes to destroyed:building=yes, and add damage:event=2026NepalFlood. The building stays in the data as a record of the loss, and the HDX layers mark it Destroyed.

TWO LOCAL MODELS

Each model was trained on buildings mapped by hand during the response. Try both at dev.ai.hotosm.org/try-fair.

01 Buildings

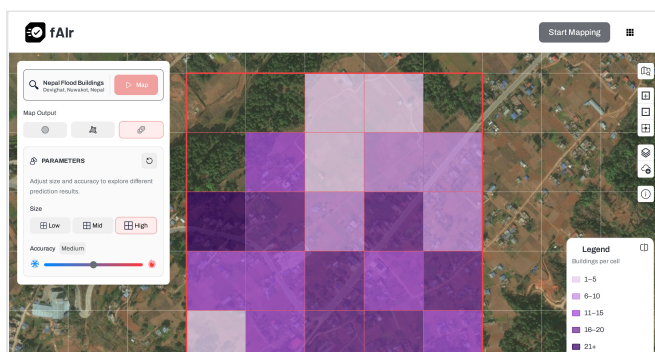
Before-flood imagery

BASE	DINOv3 (Meta) building model, the same base model available in fAIr
TRAINED ON	Buildings mapped by volunteers in OpenStreetMap, once the first Tasking Manager project was complete
PREDICTED	Buildings across the whole northern priority area
RELEASED AS	Building layer on HDX, archived once manual mapping was done

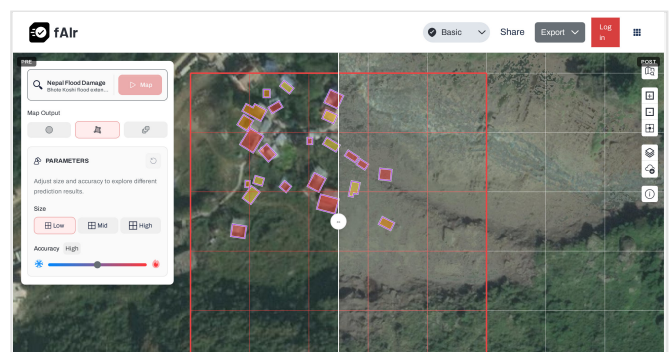
02 Damage

Before and after imagery

BASE	DINOv3 (Meta) siamese damage model, pretrained on xView and Venezuela earthquake damage data
TRAINED ON	272 buildings labelled by expert mappers for the first release: 183 destroyed, 89 intact
PREDICTED	28 Aug: 1,053 buildings in the first after-flood images. 12 Sep: 8,421 buildings across the 26-image after-flood composite, 2,276 destroyed, 594 major, 1,049 minor, the rest no visible damage
RELEASED AS	Nepal Flood 2026: fAIr Damage Assessment on HDX, first release 28 Aug, updated 12 Sep



Nepal Flood Buildings on fAIr: predicted buildings per grid cell at Devihat, Nuwakot, on before-flood Vantor imagery (CC BY-NC 4.0).



Nepal Flood Damage on fAIr, Bhote Koshi flood extent. Vantor before (left) and after (right), CC BY-NC 4.0. Red destroyed, orange major, yellow minor.

Cloud and mud made damage hard to read. In the worst-hit settlements buildings were buried in mud, and only 5 of 27 after-flood images were clear over the river. The AI results went out as predictions, 799 MapSwipe volunteers checked them, and the September update was measured against 3,896 buildings tagged by hand.

IMAGERY AND OPEN DATA

WHAT EXISTS, AND WHERE

At HOT's request, Vantor agreed on 27 August to release before and after images under CC BY-NC 4.0. Features traced into OpenStreetMap fall under the ODbL licence.

Imagery over the 90 km² high-risk area

Flood extent plus 200 m, Vantor imagery

55 km²

Covered after the flood

45 km²

Covered before the flood

5 OF 27

Images clear over the river

35–72 cm/px

Published on
OpenAerialMap


Syaphrubesi, before (Vantor, Sep 2023) and after, with fAIr damage classes: red destroyed, orange major, yellow minor.

Published datasets and services

Distributed with open licence

Flood-affected area, OSM and Overture

Flood extent plus 200 m. Updated daily.

data.humdata.org/dataset/hot_flood_npl

Full river corridor

1 km river buffer, merged with OCHA's HPCS corridor downstream. Updated daily.

data.humdata.org/dataset/hot_flood_npl_corridor

fAIr damage assessment

AI damage scores, 8,421 buildings. Updated weekly.

data.humdata.org/dataset/hot_flood_npl_buildings_damage

Imagery viewer

OpenAerialMap images with capture dates.

imagery.hotosm.org/browse

Tasking Manager projects

All 9 campaign projects, now archived.

tasks.hotosm.org · [campaign 2026 Nepal Floods](#)

MapSwipe validation

799 volunteers validating AI damage results.

mapswipe.org · [Nepal projects](#)

Contribution statistics

Live totals for the campaign hashtag.

[#nepal-flood-2026-trisuli-bhotekoshi](https://osmsg.osgeonepal.org)

Activation wiki

Imagery tables, mapping guides, activation history.

wiki.openstreetmap.org · [Nepal Floods 2026](#)