Supplementary Materials
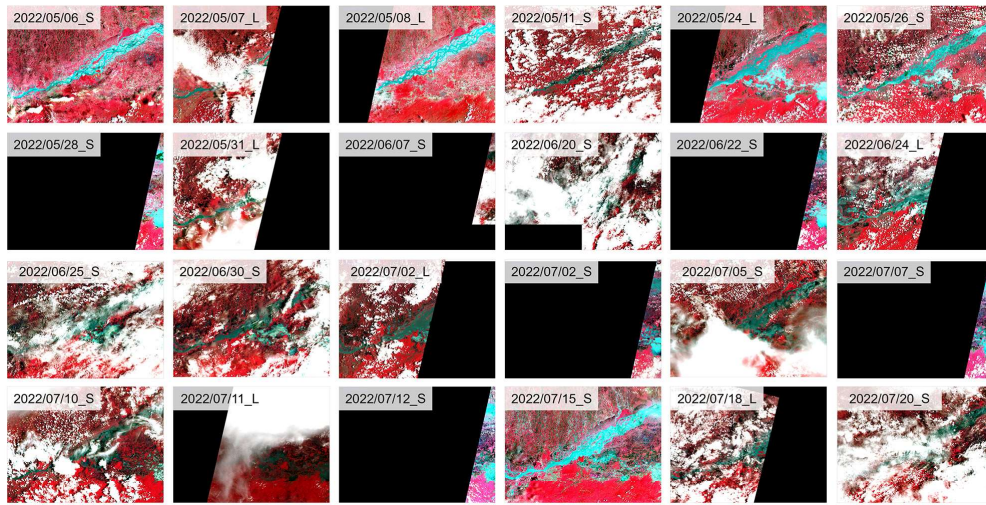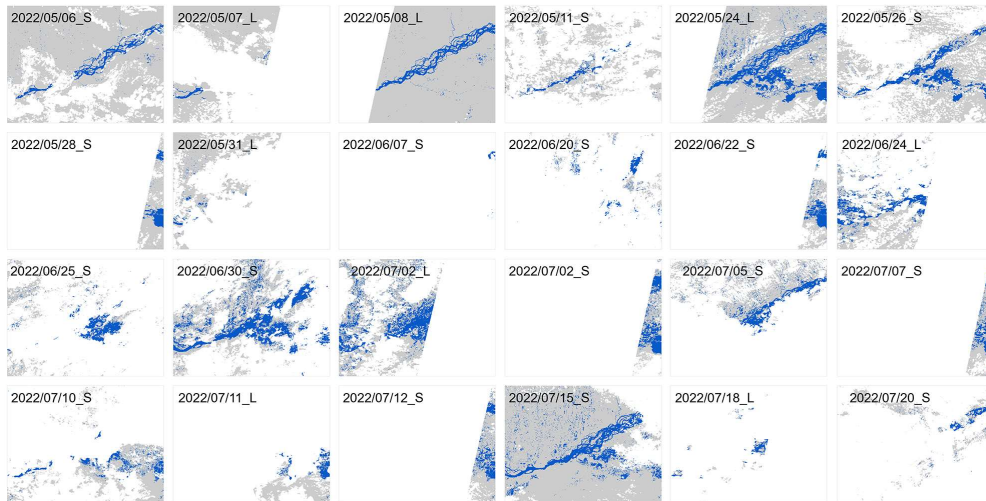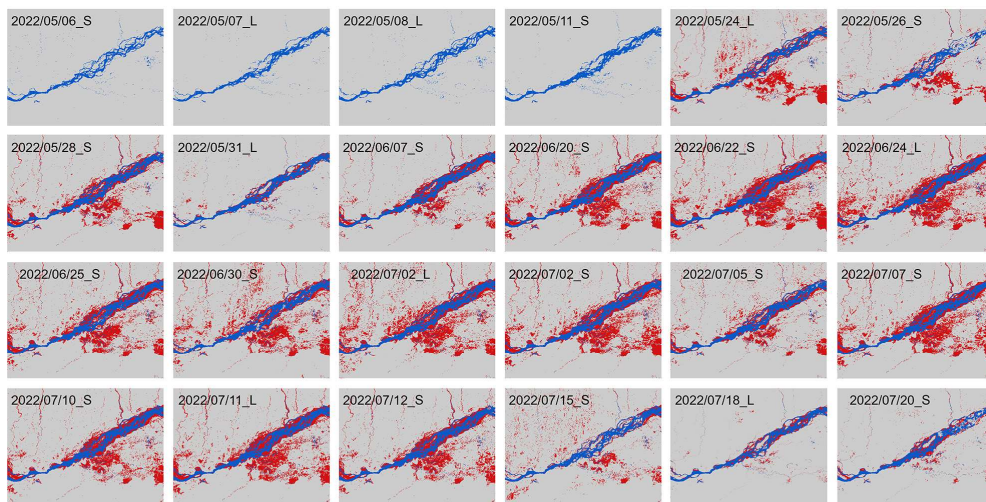

(a) Harmonized Landsat and Sentinel-2 images

(b) Initial cloud-covered water maps

(c) Reconstructed time series flood extent maps

| ☐ Cloud/No value | ☐ Non-water | ■ Water / Pre-flood water | ■ Floodwater |

Fig. S1. Reconstruction results of the proposed method for seamless time series flood extent mapping over Assam, India in 2022 flood event.

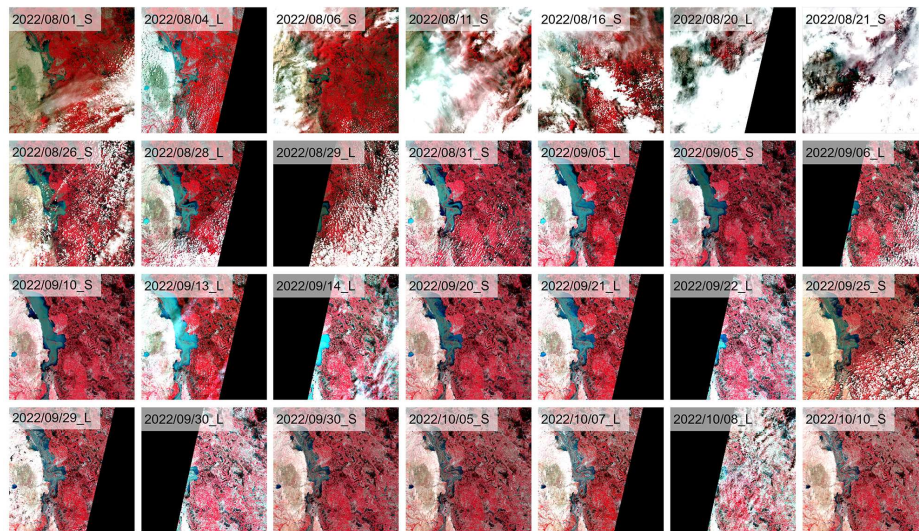(a) Harmonized Landsat and Sentinel-2 images

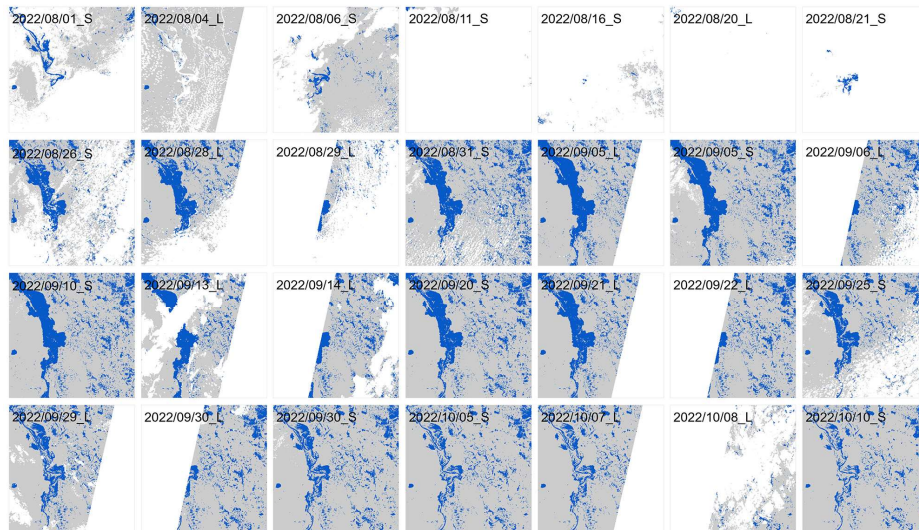(b) Initial cloud-covered water maps

(c) Reconstructed time series flood extent maps

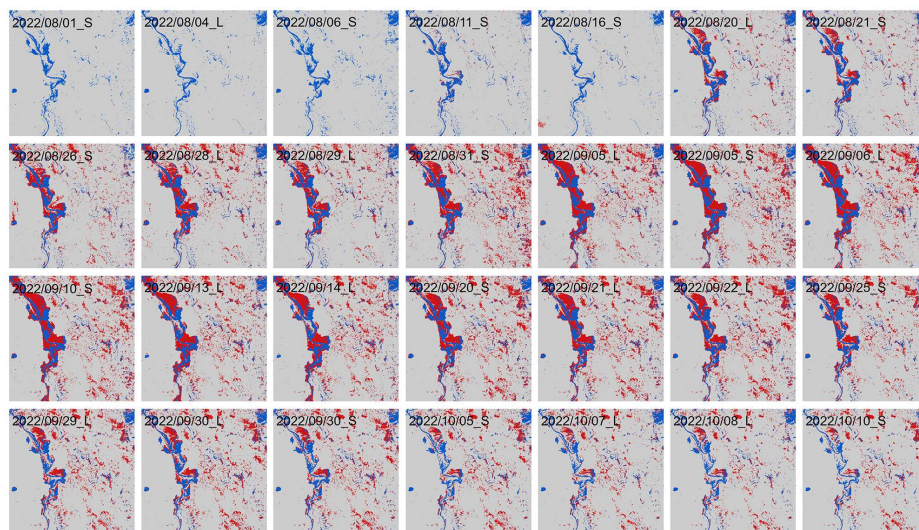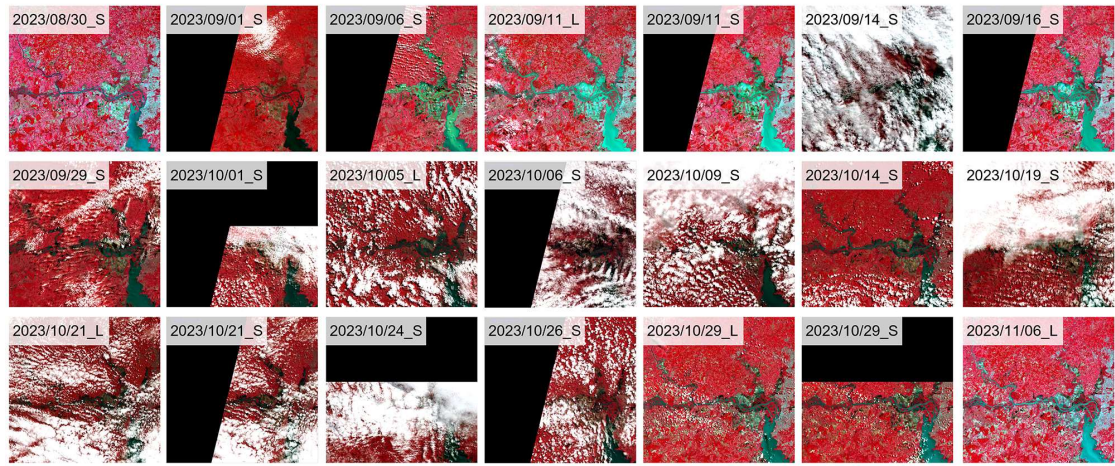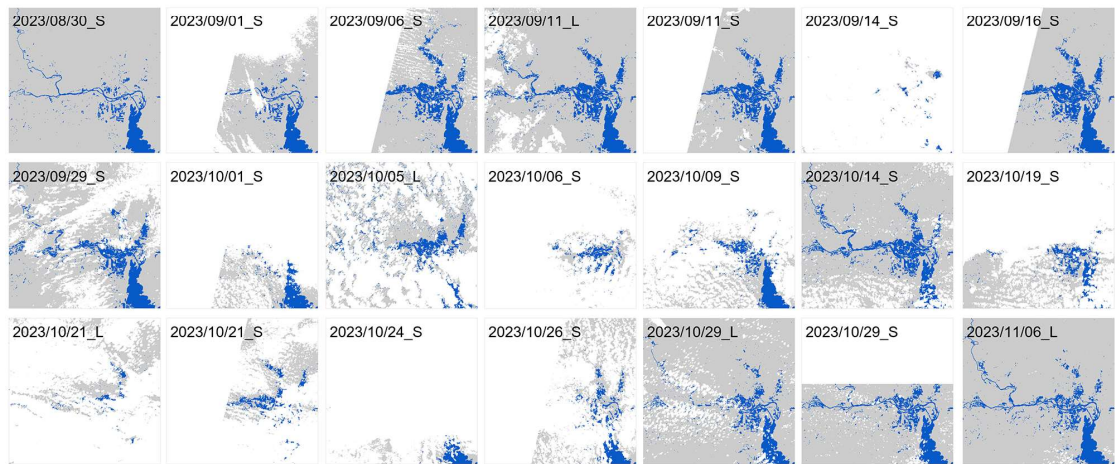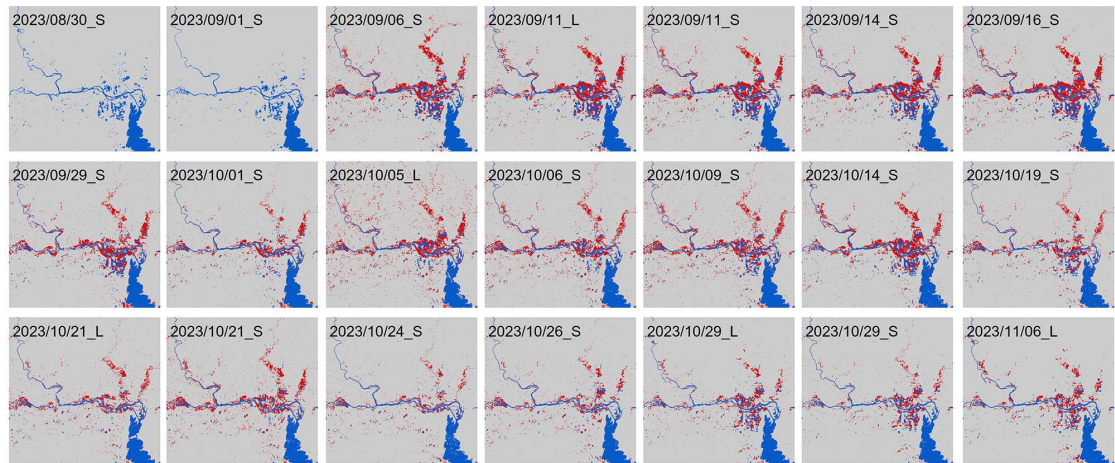Cloud/No value   Non-water   Water / Pre-flood water   Floodwater

Fig. S2. Reconstruction results of the proposed method for seamless time series flood extent mapping over Sindh, Pakistan in 2022 flood event.
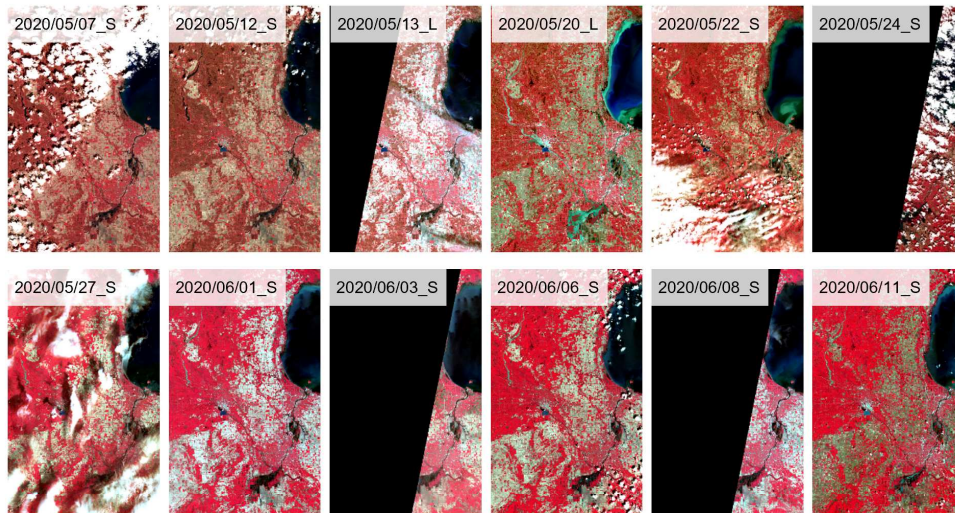
(a) Harmonized Landsat and Sentinel-2 images

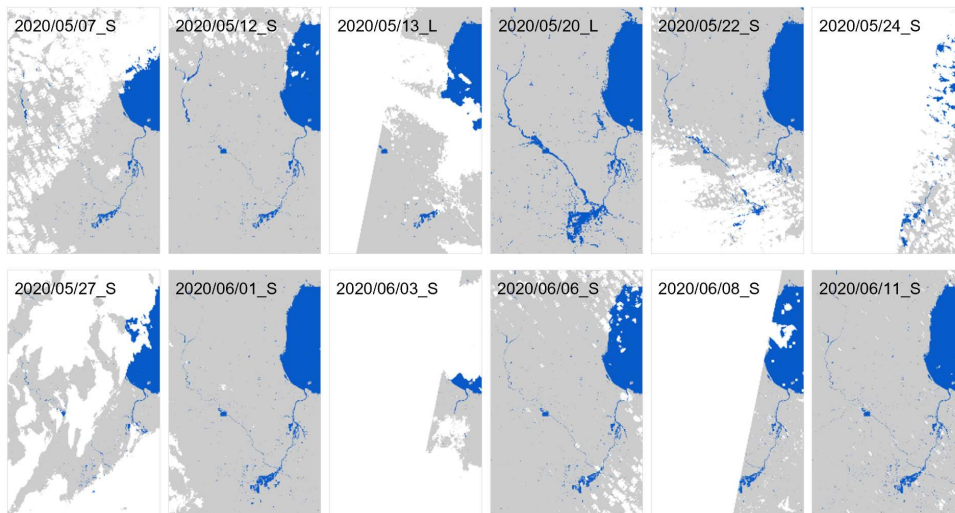(b) Initial cloud-covered water maps

(c) Reconstructed time series flood extent maps

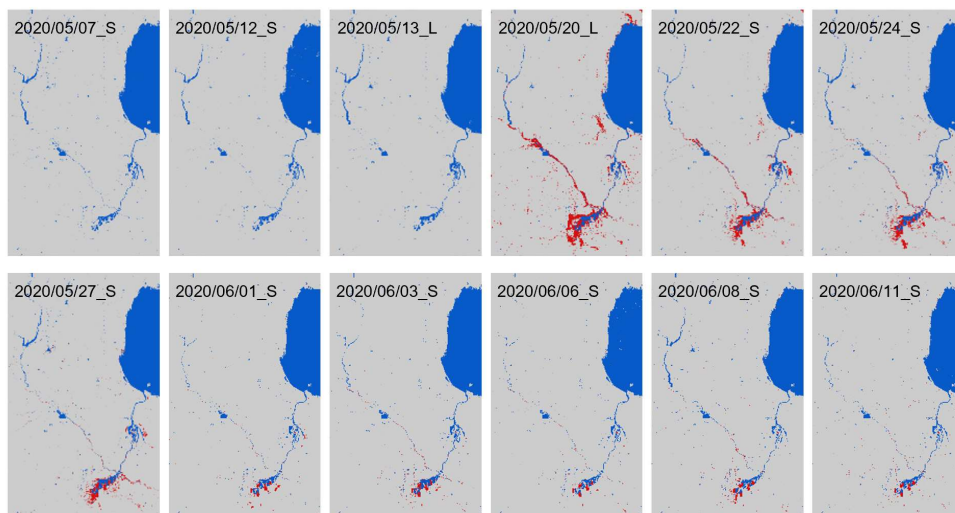| Cloud/No value | Non-water | Water / Pre-flood water | Floodwater |

Fig. S3. Reconstruction results of the proposed method for seamless time series flood extent mapping over Rio Grande do Sul, Brazil in 2023 flood event.

(a) Harmonized Landsat and Sentinel-2 images

(b) Initial cloud-covered water maps

(c) Reconstructed time series flood extent maps

| | Cloud/No value | | Non-water | | Water / Pre-flood water | | Floodwater |

Fig. S4. Reconstruction results of the proposed method for seamless time series flood extent mapping over Michigan, USA in 2020 flood event.