Subject: GPS Dataset
Posted by parul_jain on Sun, 24 Apr 2022 09:40:42 GMT
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Hi! I am interested in creating buffer radius around the cluster locations of the households in DHS data for India 2015-16. I am mapping the proximity of each cluster to the location of industrial unit. However the user manual states that " a GPS coordinate displacement process is carried out as follows: Urban clusters are displaced a distance up to two kilometers. Rural clusters are displaced a distance up to five kilometers, with a further, randomly selected 1% of the rural clusters displaced a distance up to ten kilometers".

Could you tell me what would be the minimum idle distance for which I can create buffer such that both displacement and original locations are within that buffer radius.

Subject: Re: GPS Dataset
Posted by Janet-DHS on Wed, 27 Apr 2022 13:53:10 GMT
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Ben-DHS wrote on Mon, 25 April 2022 13:19
Given that the GPS points are randomly displaced, we cannot determine the minimum buffer distance that will include both displacement and original locations.
For urban clusters, all displaced points will be within 2km of their original location. For rural clusters, all displaced points will be within 10km of their original location,
while at least 99% of displaced points will be within 5km of their original location.

You can find more information on the impact of displacement on distance-based analyses in https://dhsprogram.com/pubs/pdf/SAR8/SAR8.pdf