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Subject: Extracting values from geospatial covariates to GPS points.

Posted by [geoK](#) on Wed, 20 Mar 2024 13:23:24 GMT

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Hi, I have been using DHS GPS points in the past, and used buffers around the points when extracting values from geospatial covariates (2km if urban cluster, 5km buffer if rural cluster). Now I have come across this paper [https://spatialdata.dhsprogram.com/references/DHS\\_Covariates\\_Extract\\_Data\\_Description\\_3.pdf](https://spatialdata.dhsprogram.com/references/DHS_Covariates_Extract_Data_Description_3.pdf) and I was wondering if the overall guidelines on extraction are moving away from the buffers method to extracting to the actual point (although displaced)? Many thanks!

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Subject: Re: Extracting values from geospatial covariates to GPS points.

Posted by [Ben-DHS](#) on Thu, 21 Mar 2024 15:56:18 GMT

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Hi geoK

We are not moving away from the buffer method. When we began our geospatial modeling work, we modified the covariate extraction process to obtain direct point pixel values from the resampled/aggregated 5x5km layers. We are switching back to the buffer approach in the next version of our covariate manual, which we expect will be released this year.

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Subject: Re: Extracting values from geospatial covariates to GPS points.

Posted by [alexiaamber](#) on Wed, 09 Jul 2025 04:25:21 GMT

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geoK wrote on Wed, 20 March 2024 09:23Hi, I have been using DHS GPS points in the past, and used buffers around the points when extracting values from geospatial covariates (2km if urban cluster, 5km buffer if rural cluster). Now I have come across this paper [https://spatialdata.dhsprogram.com/references/DHS\\_Covariates\\_Extract\\_Data\\_Description\\_3.pdf](https://spatialdata.dhsprogram.com/references/DHS_Covariates_Extract_Data_Description_3.pdf)time calculator and I was wondering if the overall guidelines on extraction are moving away from the buffers method to extracting to the actual point (although displaced)? Many thanks!

Hi there,

Thank you for sharing information about using DHS GPS points. Based on the document you provided, it seems that the new guidelines are shifting towards extracting data directly from the points, even if they are displaced. This could improve the accuracy of the data and minimize biases from using buffer zones.

However, I believe that using buffers can still be useful in certain cases, especially when considering surrounding environmental factors. You might want to experiment with both methods to see which one better suits your research needs.

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