

Listed below are known citations to the NASA Socioeconomic Data and Applications Center (SEDAC) *Global Agricultural Inputs* data collection. The data collection, and specific data set (if known), being cited are beneath each citation. Citations to multiple collections/sets are listed on separate lines. If a publication cites remotely sensed earth observation data, whether from NASA or another source, those instruments and/or platforms are listed as well.

List last updated on 3 October 2023.

Aggarwal, A., Arostegui, D., DeLyser, K., Hewett, B., Johnson, E., & Rudee, A. (2018). *Achieving the Mid-Century Strategy Goals for Deep Decarbonization in Agriculture and Forestry*. Retrieved from Durham NC:
<https://nicholasinstitute.duke.edu/publications/achieving-mid-century-strategy-goals-deep-decarbonization-agriculture-and-forestry>

Global Agricultural Inputs (nitrogen fertilizer application) - 10.7927/H4Q81B0R

Anderson, N. J., Heathcote, A. J., & Engstrom, D. R. (2020). Anthropogenic alteration of nutrient supply increases the global freshwater carbon sink. *Science Advances*, 6(16), eaaw2145.
doi:10.1126/sciadv.aaw2145

Global Agricultural Inputs (nitrogen fertilizer application) - 10.7927/H4Q81B0R

Andrade-Rivas, F., Paul, N., Spiegel, J., Henderson, S. B., Parrott, L., Delgado-Ron, J. A., . . . van den Bosch, M. (2023). Mapping potential population-level pesticide exposures in Ecuador using a modular and scalable geospatial strategy. *GeoHealth*, 7(7), e2022GH000775.
doi:10.1029/2022GH000775

Global Agricultural Inputs (PEST-CHEMGRIDS) - 10.7927/weq9-pv30

Gridded Population of the World (GPW) v4.11 (population count) - 10.7927/H4JW8BX5

Gridded Species Distribution (Amphibians 2015) - 10.7927/H4RR1W66

Arumugam, P., Chemura, A., Schauburger, B., & Gornott, C. (2020). Near real-time biophysical rice (*Oryza sativa* L.) yield estimation to support crop insurance implementation in India. *Agronomy*, 10(11), 1674. doi:10.3390/agronomy10111674

Global Agricultural Inputs (nitrogen fertilizer application)

Brenner, N., & Katsikis, N. (2020). Operational landscapes: Hinterlands of the Capitalocene. *Architectural Design*, 90(1), 22-31. doi:10.1002/ad.2521

Global Agricultural Lands (Cropland)

Global Agricultural Inputs (nitrogen fertilizer application)

Chen, W., Guenther, A. B., Jia, S., Mao, J., Yan, F., Wang, X., & Shao, M. (2022). Synergistic effects of biogenic volatile organic compounds and soil nitric oxide emissions on summertime ozone formation in China. *Science of The Total Environment*, 828, 154218.
doi:10.1016/j.scitotenv.2022.154218

Global Agricultural Inputs (nitrogen fertilizer application)

NASA REMOTE SENSING (MODIS)

NASA REMOTE SENSING (OMI NO2)

- Christiaen, B., Bernard, R. J., Mortazavi, B., Cebrian, J., & Ortmann, A. C. (2014). The degree of urbanization across the globe is not reflected in the $\delta^{15}\text{N}$ of seagrass leaves. *Marine Pollution Bulletin*, 83(2), 440-445. doi:10.1016/j.marpolbul.2013.06.024
Global Agricultural Inputs (nitrogen fertilizer application)
Global Rural-Urban Mapping Project (GRUMP) v1 (land and geographic area grids)
- Cruz, I. C. S., Waters, L. G., Kikuchi, R. K. P., Leão, Z. M. A. N., & Turra, A. (2018). Marginal coral reefs show high susceptibility to phase shift. *Marine Pollution Bulletin*, 135, 551-561. doi:10.1016/j.marpolbul.2018.07.043
Global Agricultural Inputs (nitrogen fertilizer application)
NASA REMOTE SENSING (MODIS)
REMOTE SENSING (AVHRR SST)
- Davies, T. J., Maurin, O., Yessoufou, K., Daru, B. H., Bezeng, B. S., Mankga, L. T., . . . van der Bank, M. (2022). Woody plant phylogenetic diversity supports nature's contributions to people but is at risk from human population growth. *Conservation Letters*, 15(6), e12914. doi:10.1111/conl.12914
Global Agricultural Lands (cropland)
Global Agricultural Inputs (nitrogen fertilizer application)
Gridded Population of the World (GPW) v3 (population density)
- Delgado-Baquerizo, M., Eldridge, D. J., Ochoa, V., Gozalo, B., Singh, B. K., & Maestre, F. T. (2017). Soil microbial communities drive the resistance of ecosystem multifunctionality to global change in drylands across the globe. *Ecology Letters*, 20(10), 1295-1305. doi:10.1111/ele.12826
Global Agricultural Inputs (nitrogen fertilizer application)
- Goyenola, G., Graeber, D., Meerhoff, M., Jeppesen, E., Mello, F. T.-d., Vidal, N., . . . Kronvang, B. (2020). Influence of farming intensity and climate on lowland stream nitrogen. *Water*, 12(4), 1021. doi:10.3390/w12041021
Global Agricultural Inputs (nitrogen fertilizer application)
- Huijbregts, M. A. J., Steinmann, Z. J. N., Elshout, P. M. F., Stam, G., Verones, F., Vieira, M. D. M., & van Zelm, R. (2016). *ReCiPe2016. A Harmonized Life Cycle Impact Assessment Method at Midpoint and Endpoint Level. Report I: Characterization*. Retrieved from Nijmegen: http://www.ru.nl/publish/pages/542191/report_recipe_2016oct.pdf
Global Agricultural Inputs (nitrogen fertilizer application)
Gridded Population of the World (GPW) v3 (population count future estimates)
- Iizumi, T., Hosokawa, N., & Wagai, R. (2021). Soil carbon-food synergy: sizable contributions of small-scale farmers. *CABI Agriculture and Bioscience*, 2(1), 43. doi:10.1186/s43170-021-00063-6
Global Agricultural Inputs (PEST-CHEMGRIDS) - 10.7927/weq9-pv30
- Lattuada, M., Albrecht, C., & Wilke, T. (2019). Differential impact of anthropogenic pressures on Caspian Sea ecoregions. *Marine Pollution Bulletin*, 142, 274-281. doi:10.1016/j.marpolbul.2019.03.046
Global Agricultural Inputs (nitrogen fertilizer application)
Gridded Population of the World (GPW) v4.10 (population density UN WPP-adjusted)
NASA REMOTE SENSING (MODIS Ocean Color)

Lee, S., & Mortari, D. (2017). Quasi-equal area subdivision algorithm for uniform points on a sphere with application to any geographical data distribution. *Computers & Geosciences*, *103*, 142-151. doi:10.1016/j.cageo.2017.03.012

Global Agricultural Inputs (nitrogen fertilizer application)
Gridded Population of the World (GPW) v3 (population density)

Li, H., Wu, Y., Chen, J., Zhao, F., Wang, F., Sun, Y., . . . Qiu, L. (2021). Responses of soil organic carbon to climate change in the Qilian Mountains and its future projection. *Journal of Hydrology*, *596*, 126110. doi:10.1016/j.jhydrol.2021.126110

Global Agricultural Inputs (nitrogen fertilizer application)
NASA REMOTE SENSING (MODIS)

Li, J., Jian, S., Lane, C. S., Lu, Y., He, X., Wang, G., . . . Hui, D. (2020). Effects of nitrogen fertilization and bioenergy crop type on topsoil organic carbon and total Nitrogen contents in middle Tennessee USA. *PLoS ONE*, *15*(3), e0230688. doi:10.1371/journal.pone.0230688

Global Agricultural Inputs (nitrogen fertilizer application)

Liu, L., Zhang, X., Xu, W., Liu, X., Li, Y., Wei, J., . . . Wu, X. (2020). Challenges for global sustainable nitrogen management in agricultural systems. *Journal of Agricultural and Food Chemistry*, *68*(11), 3354-3361. doi:10.1021/acs.jafc.0c00273

Global Agricultural Inputs (nitrogen fertilizer application)
Global Agricultural Inputs (nitrogen in manure production)
NASA REMOTE SENSING (MODIS - MCD12Q1)

Loiselle, S. A., Gasparini Fernandes Cunha, D., Shupe, S., Valiente, E., Rocha, L., Heasley, E., . . . Baruch, A. (2016). Micro and macroscale drivers of nutrient concentrations in urban streams in South, Central and North America. *PLoS ONE*, *11*(9), e0162684. doi:10.1371/journal.pone.0162684

Global Agricultural Inputs (phosphorous fertilizer application)
Gridded Population of the World (GPW) v4 Preliminary release 2 (population density)

Macintosh, K., Mayer, B. K., McDowell, R., Powers, S. M., Baker, L. A., Boyer, T. H., & Rittmann, B. E. (2018). Managing diffuse phosphorus at the source versus at the sink. *Environmental Science & Technology*, *52*(21), 11995-12009. doi:10.1021/acs.est.8b01143

Global Agricultural Inputs (phosphorous in manure production)

Maggi, F., la Cecilia, D., Tang, F. H. M., & McBratney, A. (2020). The global environmental hazard of glyphosate use. *Science of The Total Environment*, *717*, 137167. doi:10.1016/j.scitotenv.2020.137167

Global Agricultural Inputs (nitrogen fertilizer application)
Global Agricultural Inputs (phosphorous fertilizer application) - 10.7927/H4FQ9TJR

Maggi, F., Tang, F. H. M., la Cecilia, D., & McBratney, A. (2019). PEST-CHEMGRIDS, global gridded maps of the top 20 crop-specific pesticide application rates from 2015 to 2025. *Scientific Data*, *6*(1), 170. doi:10.1038/s41597-019-0169-4

Global Agricultural Lands (Pasture)
Global Agricultural Inputs (nitrogen fertilizer application) - 10.7927/H4Q81B0R
Global Agricultural Inputs (phosphorous fertilizer application) - 10.7927/H4FQ9TJR
Global Agricultural Inputs (PEST-CHEMGRIDS)

Gridded Population of the World (GPW) v4 (Doxsey-Whitfield et al. paper - population density)
NASA (MEaSUREs Global Food Security Support Analysis Data (GFSAD) Crop Mask Global 1 kilometer
(km))

Maier, S. D., Lindner, J. P., & Francisco, J. (2019). Conceptual framework for biodiversity assessments in
global value chains. *Sustainability*, *11*(7), 1841. doi:10.3390/su11071841

Global Agricultural Inputs (nitrogen fertilizer application)

Land Use and Land Cover (LULC) (Global Grid of Probabilities of Urban Expansion to 2030, v1)

Global High Resolution Urban Data from Landsat (GMIS)

Norton, R., Davidson, E., & Roberts, T. (2015). *Position Paper - Nitrogen Use Efficiency and Nutrient
Performance Indicators*. Retrieved from
[http://www.nutrientchallenge.org/sites/default/files/documents/files/NUE%20and%20nutrient
%20performance%20indicators_GPNM2015_FINAL.pdf](http://www.nutrientchallenge.org/sites/default/files/documents/files/NUE%20and%20nutrient%20performance%20indicators_GPNM2015_FINAL.pdf)

Global Agricultural Inputs (nitrogen fertilizer application)

Ouedraogo, I., Defourny, P., & Vanclooster, M. (2019). Application of random forest regression and
comparison of its performance to multiple linear regression in modeling groundwater nitrate
concentration at the African continent scale. *Hydrogeology Journal*, *27*(3), 1081-1098.
doi:10.1007/s10040-018-1900-5

Global Agricultural Inputs (nitrogen fertilizer application)

Ouedraogo, I., Defourny, P., & Vanclooster, M. (2019). Validating a continental-scale groundwater
diffuse pollution model using regional datasets. *Environmental Science and Pollution Research*,
26(3), 2105-2119. doi:10.1007/s11356-017-0899-9

Global Agricultural Inputs (nitrogen fertilizer application)

Ouedraogo, I., & Vanclooster, M. (2016). A meta-analysis and statistical modelling of nitrates in
groundwater at the African scale. *Hydrology and Earth System Sciences*, *20*(6), 2353-2381.
doi:10.5194/hess-20-2353-2016

Global Agricultural Inputs (nitrogen fertilizer application)

Pasut, C., Tang, F. H. M., Hamilton, D. P., & Maggi, F. (2021). Carbon, nitrogen, and sulfur elemental
fluxes in the soil and exchanges with the atmosphere in Australian tropical, temperate, and arid
wetlands. *Atmosphere*, *12*(1), 42. doi:10.3390/atmos12010042

Global Agricultural Inputs (nitrogen fertilizer application) - 10.7927/H4Q81B0R

Global Agricultural Inputs (phosphorous fertilizer application) - 10.7927/H4FQ9TJR

NASA REMOTE SENSING (MODIS)

Porfirio, L. L., Newth, D., Harman, I. N., Finnigan, J. J., & Cai, Y. (2017). Patterns of crop cover under
future climates. *Ambio*, *46*(3), 265-276. doi:10.1007/s13280-016-0818-1

Global Agricultural Inputs (nitrogen fertilizer application)

Global Agricultural Inputs (phosphorous fertilizer application)

Schulze, D. G. (2016). Soils of Humid Mid-Latitude Landscapes. In *International Encyclopedia of
Geography: People, the Earth, Environment and Technology*: John Wiley & Sons, Ltd.

Global Agricultural Lands (Cropland) - 10.7927/H4C8276G

Global Agricultural Inputs (nitrogen fertilizer application) - 10.7927/H4Q81B0R

Global Agricultural Inputs (phosphorous fertilizer application) - 10.7927/H4FQ9TJR
Gridded Population of the World (GPW) v3 (population count) - 10.7927/H4639MPP
Gridded Population of the World (GPW) v3 (population density) - 10.7927/H4XK8CG2

Seekell, D. A., Lapierre, J. F., & Cheruvelil, K. S. (2018). A geography of lake carbon cycling. *Limnology and Oceanography Letters*, 3(3), 49-56. doi:10.1002/lol2.10078

Global Agricultural Inputs (phosphorous fertilizer application) - 10.7927/H4FQ9TJR
Gridded Population of the World (GPW) v4 (population density) - 10.7927/H4NP22DQ
Human Appropriation of Net Primary Productivity (HANPP) (Global Patterns in Net Primary Productivity, v1) - 10.7927/H40Z715X

Shukla, S., & Saxena, A. (2018). Global status of nitrate contamination in groundwater: Its occurrence, health impacts, and mitigation measures. In C. M. Hussain (Ed.), *Handbook of Environmental Materials Management* (pp. 1-21). Cham: Springer International Publishing.

Global Agricultural Inputs (nitrogen fertilizer application) - 10.7927/H4Q81BOR

Sindelarova, K., Arellano, S., Ginoux, P., Granier, C., Lennartz, S. T., & Simpson, D. (2023). Emissions on Global Scale. In H. Akimoto & H. Tanimoto (Eds.), *Handbook of Air Quality and Climate Change* (pp. 1-42). Singapore: Springer Nature Singapore.

Global Agricultural Inputs (nitrogen fertilizer application) - 10.7927/H4Q81BOR
NASA REMOTE SENSING (MODIS)

Tatsumi, K. (2016). Effects of automatic multi-objective optimization of crop models on corn yield reproducibility in the U.S.A. *Ecological Modelling*, 322, 124-137.
doi:10.1016/j.ecolmodel.2015.11.006

Global Agricultural Inputs (collection)
NASA REMOTE SENSING (ASTER GDEM)

Tellman, B., McDonald, R. I., Goldstein, J. H., Vogl, A. L., Flörke, M., Shemie, D., . . . Veiga, F. (2018). Opportunities for natural infrastructure to improve urban water security in Latin America. *PLoS ONE*, 13(12), e0209470. doi:10.1371/journal.pone.0209470

Global Agricultural Inputs (phosphorous in manure production) - 10.7927/H49Z92TD
Global Rural-Urban Mapping Project (GRUMP) v1 (urban extent) - 10.7927/H4GH9FVG

Thornhill, I., Ho, J. G., Zhang, Y., Li, H., Ho, K. C., Miguel-Chinchilla, L., & Loiselle, S. A. (2017). Prioritising local action for water quality improvement using citizen science; a study across three major metropolitan areas of China. *Science of The Total Environment*, 584-585, 1268-1281.
doi:10.1016/j.scitotenv.2017.01.200

Global Agricultural Inputs (nitrogen fertilizer application)
Global Agricultural Inputs (phosphorous fertilizer application)
REMOTE SENSING (Landsat)

Turner, P. A., Griffis, T. J., Lee, X., Baker, J. M., Venterea, R. T., & Wood, J. D. (2015). Indirect nitrous oxide emissions from streams within the US Corn Belt scale with stream order. *Proceedings of the National Academy of Sciences*, 112(32), 9839-9843. doi:10.1073/pnas.1503598112

Global Agricultural Inputs (nitrogen fertilizer application) - 10.7927/H4Q81BOR

van den Oever, A. E. M., Cardellini, G., Sels, B. F., & Messagie, M. (2021). Life cycle environmental

impacts of compressed biogas production through anaerobic digestion of manure and municipal organic waste. *Journal of Cleaner Production*, 306, 127156. doi:10.1016/j.jclepro.2021.127156

Global Agricultural Inputs (nitrogen in manure production)

Global Agricultural Inputs (phosphorous in manure production)

Verones, F., Moran, D., Stadler, K., Kanemoto, K., & Wood, R. (2017). Resource footprints and their ecosystem consequences. *Scientific Reports*, 7(40743). doi:10.1038/srep40743

Global Agricultural Inputs (nitrogen fertilizer application)

Global Agricultural Inputs (nitrogen in manure production)

Global Agricultural Inputs (phosphorous fertilizer application)

Global Agricultural Inputs (phosphorous in manure production)

Wang, W.-G., Li, M.-Y., Diao, L., Zhang, C., Tao, L.-M., Zhou, W.-X., . . . Zhang, Y. (2023). The health risk of acetochlor metabolite CMEPA is associated with lipid accumulation induced liver injury.

Environmental Pollution, 331, 121857. doi:10.1016/j.envpol.2023.121857

Global Agricultural Inputs (PEST-CHEMGRIDS) - 10.7927/weq9-pv30

Wing, I. S., De Cian, E., & Mistry, M. N. (2021). Global vulnerability of crop yields to climate change.

Journal of Environmental Economics and Management, 109, 102462.

doi:10.1016/j.jeem.2021.102462

Global Agricultural Inputs (PEST-CHEMGRIDS)

Wyckhuys, K. A. G., Tang, F. H. M., & Hadi, B. A. R. (2023). Pest management science often disregards farming system complexities. *Communications Earth & Environment*, 4(1), 223.

doi:10.1038/s43247-023-00894-3

Global Agricultural Inputs (PEST-CHEMGRIDS)

Yang, Y., Liu, L., Zhang, F., Zhang, X., Xu, W., Liu, X., . . . Xie, Y. (2021). Enhanced nitrous oxide emissions caused by atmospheric nitrogen deposition in agroecosystems over China. *Environmental Science and Pollution Research*, 28, 15350–15360. doi:10.1007/s11356-020-11591-5

doi:10.1007/s11356-020-11591-5

Global Agricultural Inputs (nitrogen fertilizer application)

Global Agricultural Inputs (nitrogen in manure production)

Yao, Y., Ye, L., Tang, H., Tang, P., Wang, D., Si, H., . . . Van Ranst, E. (2015). Cropland soil organic matter content change in Northeast China, 1985-2005. *Open Geosciences*, 7(1), 234-243.

doi:10.1515/geo-2015-0034

Global Agricultural Inputs (collection)

Zhou, M., Brandt, P., Pelster, D., Rufino, M. C., Robinson, T. P., & Butterbach-Bahl, K. (2014). Regional nitrogen budget of the Lake Victoria Basin, East Africa: syntheses, uncertainties and perspectives. *Environmental Research Letters*, 9(10), 105009.

doi:10.1088/1748-9326/9/10/105009

doi:10.1088/1748-9326/9/10/105009

Global Agricultural Inputs (nitrogen fertilizer application)