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## Geo-Wiki.org Newsletter - December 2013

Welcome to the second Geo-Wiki newsletter! We are pleased to be able to update you on the game, which has really taken off since the 15 November launch. We also report on some of the research that you have helped us with.

## Cropland Capture Craze!

As you may have heard, we launched our new game: Cropland Capture in the middle of November. We are now in week three of the game so we'd like to congratulate the first three winners of weeks 1: burkhard, Simone Ortner and Damien Jacques and the three winners of week 2: euphrat, Simone Ortner and burkhard. These winners will be entered into a draw that will take place at the end of the competition to win one of the following prizes: an Amazon Kindle, a brand new smartphone, and a tablet.

You have already helped us to collect 900,000 validation samples, which is an amazing achievement! Keep up the good work. It's not too late to start playing since we reset the scores to 0 each Friday so everyone is in with a good chance of becoming the weekly winners. Remember to visit <a href="www.geo-wiki.org">www.geo-wiki.org</a> if you need more information on how to access the game.

Our games programmer has already been working hard to fix bugs and make small improvements. He has added a new feature that allows you to invite friends and gain points for each one that plays the game. Why not try it out?

Some new features will be added in the coming weeks including the ability to:

- Challenge an answer, i.e. you think cropland was definitely evident but the game said 'no cropland' and you were deducted points or vice versa. A few of you have emailed us about this and it's to do with the way the games learns the answers as more people tell us whether cropland exists or not at the same point.
- Unlock new levels that will provide additional functionality, e.g. the ability to view geo-tagged photos to help you decide if there is cropland present.

Catch the latest blog about the game on the NPR website.

Finally, remember to follow us on Twitter (@CropCapture) for regular updates about the game and get playing to help us improve cropland!

## Biofuels and Land Availability

Geo-Wiki's fundamental raison d'être has always been about improving land cover and helping us to do scientific research. You might remember our very first competition that was held between Sep to Nov 2011. You helped us to assess four maps of land availability for biofuels that were generated by Ximing Cai and colleagues at the University of Illinois at Urbana-Champaign in which the land available was estimated to be between 320 to 1411 million hectares. These scenarios were based on different combinations of land cover and land productivity, where it was argued that only marginal land would be included as land available for biofuel production.

With your help we collected more than 50,000 samples of land cover and human impact using Geo-Wiki, where we showed that a large portion of this sample (which was drawn from the maps of land availability) clearly showed evidence that the land was not marginal. We were able to downgrade the estimates to 56 to 1035 million hectares (depending upon the scenario and the methodology employed). However, the real point of the exercise was to highlight the uncertainty associated with these types of global analyses, particularly given the uncertainty in the land cover map used in the original research by Cai and others.

We published this work in a journal called Environmental Science and Technology (impact factor of 5.257). We would like to thank the 10 co-authors of this paper (in blue), who were the winners of our first competition:

Fritz, S., See, L., van der Velde, M., Nalepa, R.A., Perger, C., Schill, C., McCallum, I., Schepaschenko, D., Kraxner, F., Cai, X., Zhang, X., Ortner, S., Hazarika, R., Cipriani, A., Di Bella, C., Rabia, A.H., Garcia, A., Vakolyuk, M., Singha, K., Beget, M.E., Erasmi, S., Albrecht, F., Shaw, B., Obersteiner, M., 2013a. Downgrading recent estimates of land available for biofuel production. Environmental Science and Technolology, 47, 1688–1694.

Although this paper is not open source, please contact us if you would like a copy.



From the entire Geo-Wiki team, we would like to wish you happy holidays and a prosperous 2014!