# GEO-Wiki

# **Geo-Wiki.org Newsletter**

# Welcome to our Winter Edition of Geo-Wiki News!

Our first edition for 2015 features development news from Geo-Wiki Pictures, Geo-Appathon and the Growers Nation App, the production of 2 global maps: Hybrid cropland map and a global map for field size and stories from our recent work in Africa.

# Geo-Wiki pictures: Android app / Pictures Branch

We're delighted to announce the new Version for Geo-Wiki Pictures on Android has arrived in the Play Store! The new version ensures compatibility with the new Android devices running Android Lollipop and is fully compatible with Google's new ART runtime. For those who didn't yet get around to updating, be rest assured, we continue to support all phones back to Android 2.3! Check out in Google Play.

After uploading your first photos, have a look at them online at <u>Geo-Wiki</u>. After logging in use the drop-down in the top left corner to access the Pictures branch. Here you can select which pictures should be accessible by the general public, to support the community, and which of them you want to keep private. In addition you can also download all your photos including the classifications from this website.

Don't forget to stay tuned for more updates. We are about to add some additional functionality in the near future. For those of you who want to classify without taking your own photos watch this space!

We envisage Geo-Wiki pictures will become one of the world's leading data platforms for exhibiting geo-tagged photographs validating Land Cover - Land Use classifications.

# Growers' Nation App wins GEO Appathon 2014!

The Growers' Nation App is the perfect gardeners tool! It informs you about what fruit, vegetables and other crops will grow well in the area around you, as well as when it's best to plant and harvest them. The App connects you with other local growers who are only too happy to share their knowledge and provide useful growing tips. The Growers' Nation App was developed by Tobias Sturn and won 1st prize at the GEO Appathon 2014 competition! It is freely available on the App Store and on Google Play.

We would like to thank all partners involved especially UBIMET for providing the weather forecasts, the University of Maryland for giving us their NDVI data and of course GEO for making this awesome competition!



# Global hybrid cropland map and field size map

Two new products have been developed by our Geo-Wiki team. These are: a global map of percentage cropland at a 1km resolution for the year 2005 (Figure 1) and a global map of field size (Figure 2) also at the same resolution. Both products were developed and validated using crowdsourced data from Geo-Wiki! So a big thank you for all your past contributions! They will be used for global agricultural monitoring and

assessment, and for global modelling of environmental change. Both can be viewed and downloaded from the Cropland branch of <u>Geo-Wiki</u>. More details on how these products were created can be found in the new publication by Fritz et al. (2015).

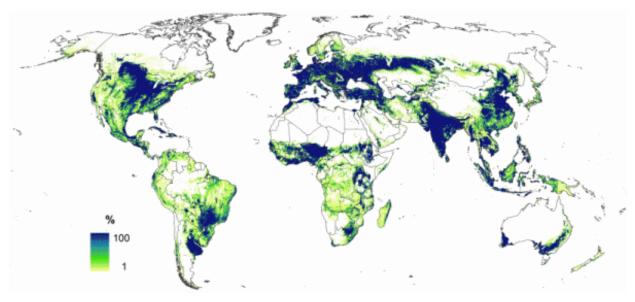


Figure 1: Cropland map

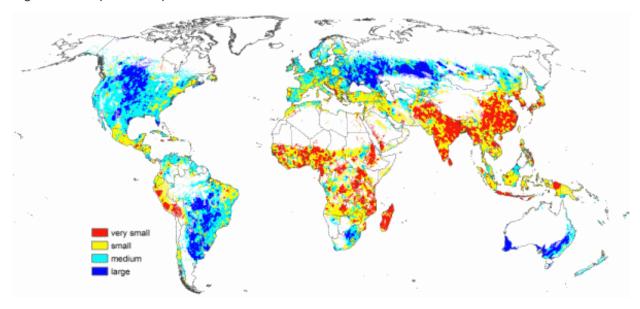


Figure 2: Field size map

# Geo-wiki in Africa

In November 2014, Christoph Perger from the Geo-Wiki team, went to visit a project in Ethiopia to assess the feasibility of the high-frequency data collection. This project is conducted in cooperation with the International Fund for Agricultural Development (IFAD) to support the impact evaluation of IFAD funded projects by collecting high frequency data from farmers in the field. The data will be gathered with a pictorial survey using Android tablets and later fed into models to support the development of future scenarios.



In the picture: Visiting a farm site, where gravity irrigation has been developed

Then in December 2014, Steffen Fritz and Christoph Perger ran a workshop on land cover classification at the Sokoine University of Agriculture (SUA) in Morogoro, Tanzania. The interface of this exercise was very similar to existing Geo-Wiki campaigns but this custom-built application ran completely offline. The classifications are then either automatically submitted, in case there is an internet connection available, or otherwise saved, transferred to another computer and then sent via email.



In the picture: Steffen Fritz and Christoph Perger presenting a workshop on offline land cover classification at SUA

# **Upcoming Events**

- Linda See will present a paper "Developing a community-based worldwide urban morphology and materials database (WUDAPT) using remote sensing and crowdsourcing for improved urban climate modelling" at the bi-annual international Joint Urban Remote Sensing Event (JURSE) 2015 30 March-1 April 2015 in Lausanne, Switzerland. For more information: <a href="mailto:jurse2015.org">jurse2015.org</a>
- Steffen Fritz is presenting an abstract on the EducEO project in a dedicated session on Citizenempowered science and crowdsourcing in the geosciences at the European Geosciences Union General Assembly 12–17 April 2015 in Vienna, Austria. For more information: equ2015.eu
- Steffen Fritz is presenting two papers at the 36th International Symposium on Remote Sensing of Environment (ISRSE) on May 11–15 2015 in Berlin, Germany. The first is entitled "Improving global land cover via crowd-sourcing and product integration", which he will present at the Trends in Operational Land Cover Mapping session. The second, "Assessment of the added value of openstreetmap for land cover / land use mapping", will be presented at Sourcing the crowd Earth Observation in partnership with citizens. Linda See will also present a paper at this Airborne and innovative remote sensing platforms and techniques (SENS) session on "A comparison of crowdsourced data from the Cropland Capture game with Degrees of Confluence and remote sensing imagery". For more information: isrse36.org

## New Game out soon!

You will be pleased to read we are soon going to launch our new game called Picture Pile. Details will follow in the next edition of Geo-Wiki News. Have your devices at the ready!

# Social Media

Don't forget to connect with us on our <u>Twitter @Geo-Wiki</u> and Facebook pages <u>facebook.com/GeoWiki</u>. Just look us up and see how <u>#citizenscience</u>, <u>#crowdsourcing</u> are revolutionizing our ways to <u>#map</u> our world!