Mountain Green Cover Index (MGCI)

A baseline calculation case for Turkey

Övünç Uysal, TurkStat

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Background

Indicator as an output of FAO’s governance

Indicator developed by The Mountain Partnership (secretariat within FAO)

- Measures the changes of the green vegetation in mountain areas – i.e. forest, shrubs, trees, pasture land, crop land, etc. – in order to monitor progress on the mountain target
- “The juxtaposition of land cover data extracted from FAO Collect Earth tool and the global map of mountains produced by FAO/Mountain Partnership Steering Committee (MPS) in 2015”
- “Index has a global coverage and it is possible to compute the indicator at the global, regional, national and sub-national level”
  (Started compiling process by FAO at the end of 2016, consulted with countries at the end of 2017)

Tool: Collect Earth

- “Collect Earth is a free and open source tool that enables data collection through Google Earth for a wide variety of purposes, including
  - Land Use, Land Use Change and Forestry (LULUCF) assessments
  - Monitoring agricultural land and urban areas
  - Validation of existing maps
  - Quantifying deforestation, reforestation and desertification”

- Training needs emerged
  (FAO organized and funded: training on using Collect Earth on 14-15 December 2017 and on 26-29 November 2018 in Rome)
How FAO can support

- Help countries increase their sampling grid and collect more data to improve the accuracy of indicator 15.4.2.
- On-demand technical assistance
- Hands-on training on using Collect Earth on 14-15 December 2017 and on 26-29 November 2018 in Rome HQ.
  - Turkey (Ministry of Agriculture and Forestry) participated as well

FAO Turkey Correspondence

- 21.12.2017 First request to validate data
- 12.01.2018 Requested further time frame for national coordination
- 02.02.2018 National calculation sent to FAO
- Other mails (reminder, question on classification, etc.)
What was done in Turkey

- Developing a capacity
  - Right focal point that corresponding to technical needs were sought in different General Directorates of Ministry of Agriculture and Forestry
    - (During the first data flow pilot – 2017)
  - Focal point (Murat Arslan) worked on calculation (also with the help of academia) of this indicator
    - (first at the end of 2017 and then in 2018).

Therefore FAO’s tools and know how were effectively connected with the national capacities
(with the help of national coordinating body - NSO and ministerial coordination).

- First calculation and numbers (differing from FAO and close to the lateral calculations, sent to FAO on Feb. 2018)
  - Accompanied by validation at the end of 2017:

- FAO’s kind offer for workshop in ROME (December 2018)

- National press release of 83 SDGs Indicators (aligned with global list, 19 Feb 2019)
  - Including Mountain Green Cover Index
  - Along with the second data collection process and the workshop, national data producer slightly revised the first MGCI calculation

- Data and findings were shared with FAO during national workshop and the efforts were welcomed (as of March 2019)
Calculation of FAO

<table>
<thead>
<tr>
<th>Kapos</th>
<th>Forest</th>
<th>Grassland - Shrubland</th>
<th>Cropland</th>
<th>Otherland</th>
<th>Wetland</th>
<th>Settlement</th>
<th>TOTAL AREA KAPOS</th>
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Sum of green cover classes 91%  
Sum of other land cover classes 9%

Calculation of Turkey

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Sum of green cover classes 83,3%  
Sum of other land cover classes 16,7%
Comparison

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</table>

**TURKEY MOUNTAIN GREEN COVER INDEX**

FAO Baseline Data 2017: 91% (calculated from approx. 1500-3000 sample points)

TurkStat News Release Baseline Data 2017: 83.26% (calculated from 46,942 sample points*)

*Which are also based on the UNEP-WCMC classification of mountain areas

Planning and a suggestion

Planning

• Baseline observation points were very widespread:
  
  – Ministry is planning to test using fewer data points for the follow up (since baseline observations are very detailed).

A Suggestion

• FAO’s strategy expressed in the metadata and in communication with TurkStat express intentions to expand and intensify calculation points:
  
  – But broader the baseline value calculation points at the beginning, easier it would be to provide follow up calculations with less data points.
  
  – We suggest that the national capacities should be met with FAO’s generous offerings (education & know how, consultance, etc.)
Thanks for your kind attention

Övünç Uysal, TurkStat
ovuncuysal@tuik.gov.tr
sdg@tuik.gov.tr