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Mountain Green Cover Index (MGCI)

A baseline calculation case for Turkey

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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)

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Background

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)

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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

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FAO Turkey Correspondece

- 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.)

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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).

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What was done in Turkey

- 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)**

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Calculation of FAO

TURKEY							
Land Cover - Land Use Area %							
Kapos	Forest	Grassland - Shrubland	Cropland	Otherland	Wetland	Settlement	TOTAL AREA KAPOS
K1	-	-	-	-	-	-	-
K2	0,0%	0,0%	0,0%	100,0%	0,0%	0,0%	100%
K3	0,7%	67,0%	0,7%	29,6%	0,7%	1,2%	100%
K4	20,4%	54,6%	12,8%	10,6%	0,4%	1,1%	100%
K5	38,0%	27,5%	27,0%	5,3%	0,4%	1,8%	100%
K6	46,0%	18,6%	30,8%	1,7%	1,3%	1,7%	100%
SUM	33,2%	35,1%	22,5%	6,9%	0,7%	1,5%	100%
	Sum of green cover classes 91%			Sum of other land cover classes 9%			

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Calculation of Turkey

TURKEY							
Land Cover - Land Use Area %							
Kapos	Forest	Grassland - Shrubland	Cropland	Otherland	Wetland	Settlement	TOTAL AREA KAPOS
K1	-	-	-	-	-	-	-
K2	-	-	-	-	-	-	-
K3	*0,0%*	*2,1%*	*0,0%*	1,46%	0,0%	0,0%	100%
K4	5,4%	15,5%	4,0%	6,9%	0,1%	0,2%	100%
K5	10,3%	7,5%	4,2%	3,4%	0,0%	0,3%	100%
K6	11,9%	5,9%	16,4%	2,9%	0,4%	1,0%	100%
SUM	27,7%	31%	24,6%	14,7%	0,5%	1,6%	100%
	Sum of green cover classes 83,3%			Sum of other land cover classes 16,7%			

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Comparison

Land Cover - Land Use Area %						
Kapos	Forest	Grassland - Shrubland	Cropland	Otherland	Wetland	Settlement
FAO	33,2%	35,1%	22,5%	6,9%	0,7%	1,5%
Ministry	27,7%	31%	24,6%	14,7%	0,5%	1,6%
Difference	**-5.5**	**-4.1**	**2.1**	**7.8**	**-0.2**	**0.1**

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

TURKEY MOUNTAIN GREEN COVER INDEX

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

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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.)**

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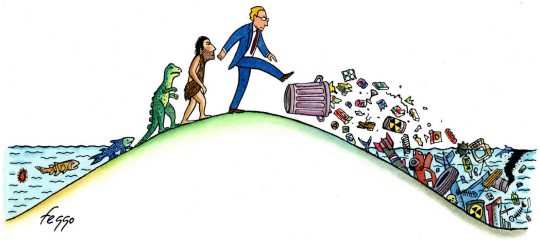
Thanks for your kind attention



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