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Hazardous Events and Disasters Related Statistics

Turkish Case

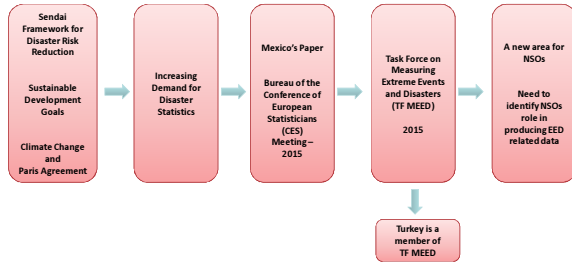
Hakan YAZICIOGLU
TurkStat Expert

23-25 April 2019
Bangkok

25.04.2019 **1**

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A New Area for NSOs



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    graph LR
      A[Sendai Framework for Disaster Risk Reduction  
Sustainable Development Goals  
Climate Change and Paris Agreement] --> B[Increasing Demand for Disaster Statistics]
      B --> C[Mexico's Paper  
Bureau of the Conference of European Statisticians (CES) Meeting- 2015]
      C --> D[Task Force on Measuring Extreme Events and Disasters (TF-MEED) 2015]
      D --> E[A new area for NSOs  
Need to identify NSOs role in producing EED related data]
      D --> F[Turkey is a member of TF-MEED]
    
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Task Force on Measuring Extreme Events and Disasters

Members

- Armenia, Italy (Chair), New Zealand, Republic of Moldova, Mexico, South Africa and Turkey
- ECLAC, European Space Agency (ESA), Eurostat, FAO, UNISDR, Joint Research Centre of the European Commission, UNECE, UNESCAP, WHO and WMO

- Communication and discussions by e-mails (2015-2019)
- Survey on the roles of NSOs, 2016
- Task Force meeting at Rome, Oct 2017
- Task Force report, *Recommendations on the Role of Official Statistics in Measuring Hazardous Events and Disasters*, Feb 2019
 - Chapter 5- Role of NSOs

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What happened after TF membership?

TurkStat made a research on the

- current status of Turkey
- availability of disaster data
- related institutions



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Turkey: Prone to disasters


Because of its

- geomorphic structure
- climatic diversity
- being the host of industrial installations;

Turkey is under risk of various disasters




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Some Major Disasters in Turkey

Disaster	Province	Year	Number of Dead
Earthquake	Erzincan	1939	33 000
	Kocaeli (Gölcük)	1999	17 480
Flood	Tokat	1908	223
	Ankara	1957	169
Avalanche	Southeastern Anatolia (112 events)	1992	328
	Bayburt (Üzengili)	1993	59
Landslide	Trabzon-Giresun-Gümüşhane	1990	65
	Trabzon (Beşköy)	1998	50
Mining accident	Manisa (Soma)	2011	301
	Zonguldak (Kozlu)	1992	263


Source: <https://tablo.afad.gov.tr/> and newspapers


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Institutions Producing Data on HED


Institution	Type of Disaster
1 Prime Ministry Disaster and Emergency Management Authority (AFAD)	Natural disasters (earthquake, flood, landslide, rock fall, avalanche)
2 Turkish State Meteorological Service (MGM)	Extreme hot/cold, excessive rain
3 General Directorate of State Hydraulic Works (DSİ)	Flood (especially river flood)
4 General Directorate of Combating Desertification and Erosion (ÇEM)	Desertification and erosion
5 Ministry of Interior (İB)	Road Traffic accidents
6 Ministry of Food, Agriculture and Livestock (GTHB)	Effects of desertification and excessive rain on farmlands, Data about epidemic diseases related to animals etc.
7 General Directorate of Forestry (OGM)	Forest Fires
8 Ministry of Health (SB)	Epidemics
9 Ministry of Environment and Urbanization (ÇSB)	Industrial accidents
10 Ministry of Transport, Maritime Affairs and Communications (UDHB)	Transportation accidents (railway, aviation, maritime)
11 General Directorate of Mineral Research and Exploration (MTA)	Earthquake and landslide

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Some Disaster Maps for Turkey

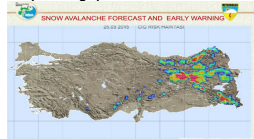
Landslide Susceptibility Map (AFAD)



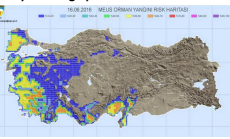
Turkey Earthquake Hazard Map (AFAD)





Early Warning System for Avalanche




Early Warning System for Forest Fires





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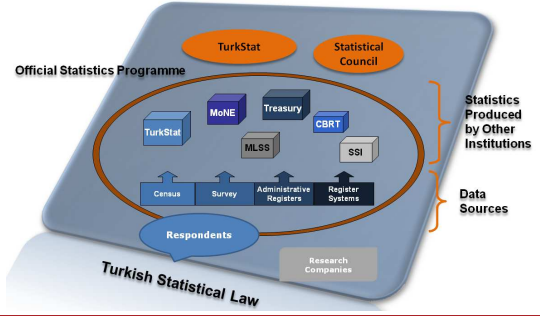
What is TurkStat's role in HED-related statistics?





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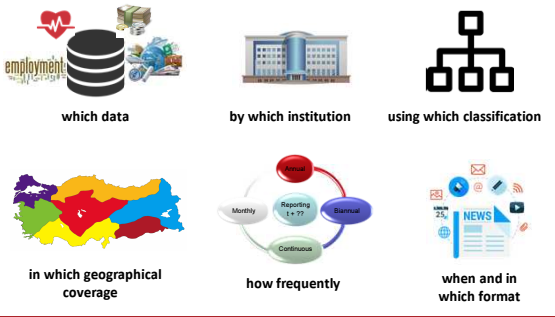
Turkish Statistical System





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Official Statistics Programme



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Official Statistics Programme


Official Statistics Programme (OSP) contains 7 domains

- Statistical Infrastructure
- Social and Demographic Statistics
- Macroeconomic Statistics
- Business Statistics
- Agricultural Statistics
- Environmental Statistics
- Multi-domain Statistics

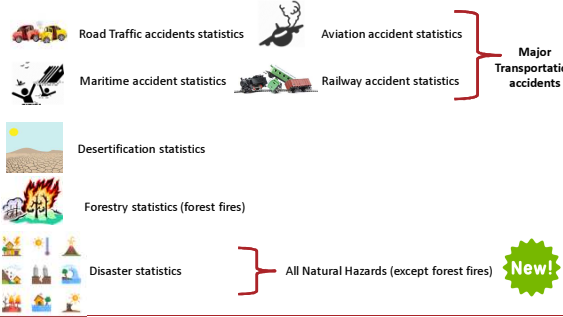
Disaster statistics are included in OSP 3rd Programme Period (2017-2021)




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







HED-related Statistics in OSP




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TurkStat's Role on HED-related Statistics


-  Collect HED-related data
-  Analyse HED-related data
-  Publish HED-related data/statistics (*for only road transport accidents*)
-  Provide technical assistance or advice on statistical processes
-  Provide economic, social and environmental data/statistics for disaster risk assessment
-  Provide economic, social and environmental data/statistics in case of occurrence of an extreme event or disaster
-  Coordination role
-  Monitoring role
-  Support and ensure the registry of the HED data in line with national and international standards and publishing the related statistics timely

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Advantages

- **Statistical Law and Official Statistical Programme**
 - official statistic of a certain quality
 - compatible with international standarts, classifications, definitions
 - working groups & revisions
 - timeliness (National Data Release Calendar)
 - monitoring
 - Prevention of duplicate efforts, hence reduce labour force, time and cost
- **Quality Labelling**
 - focus on both process and product quality
 - quality assessment of official statistics (16 standards, 41 indicators)
 - European Statistics Code of Practice (10 principles)

Forestry statistics (forest fires) have a Quality Logo 

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Challenges

- a new subject, country at an early stage
- different technical field for statisticians and NSOs
- some work done but statistically relevance ?
- statistics not transformed into indicators
- various data sources and institutions
- cooperation among national institutions

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Thank you for your attention!

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