

*9<sup>th</sup> Hungarian Geographical Contest 2017/18*

*2<sup>nd</sup> Round*

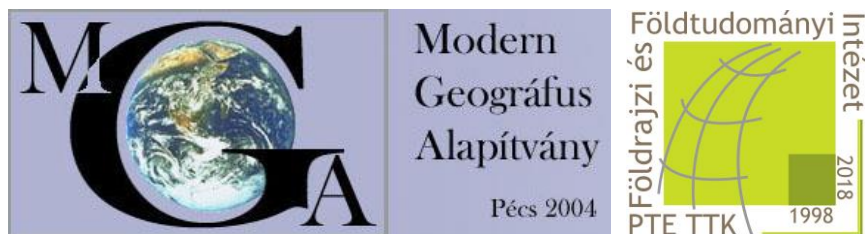
## **Written Test**

## **Source Booklet**

10 February, 2018

Do NOT open the booklet until told to do so by a supervisor!

Your answer will NOT be marked if you write it in this booklet!



## Section A

### A. 1.

1



2





3



4

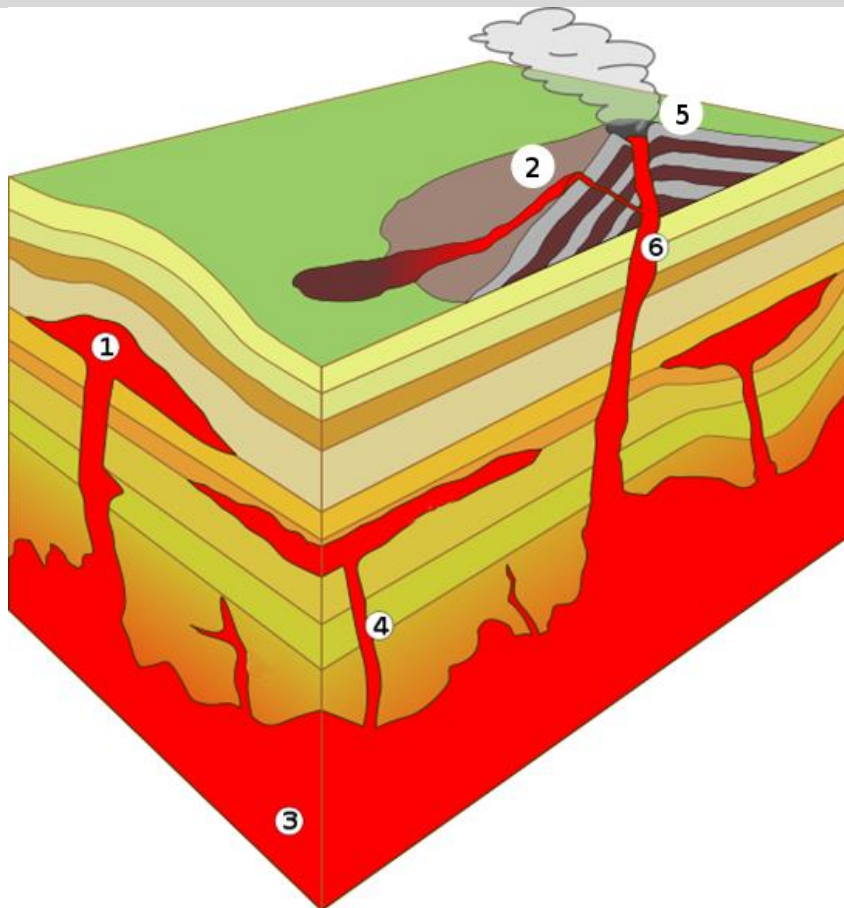


5



A. 2.

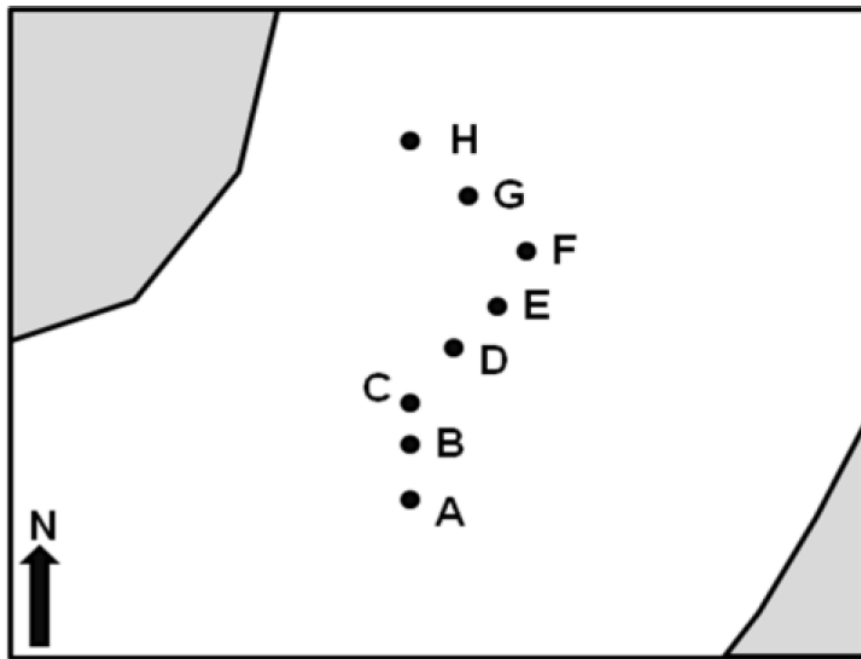
6





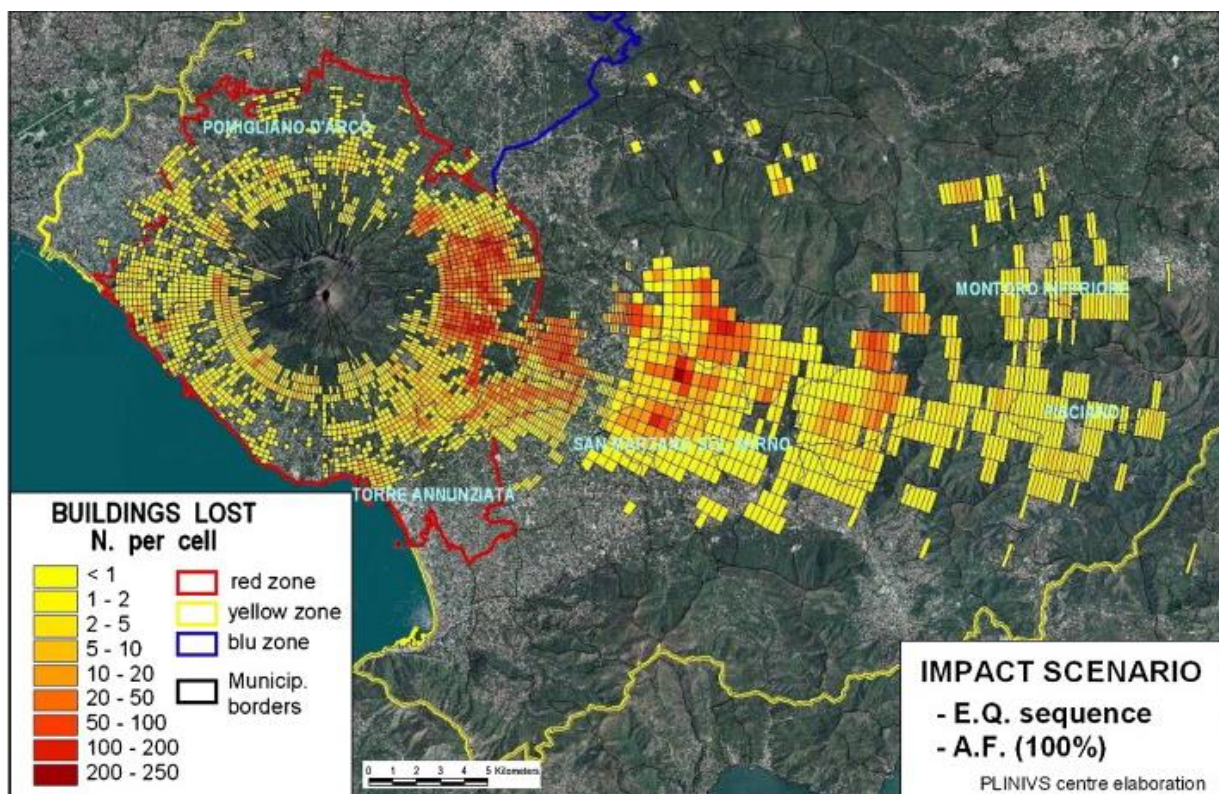
### A. 3.

7



### A. 4.

8



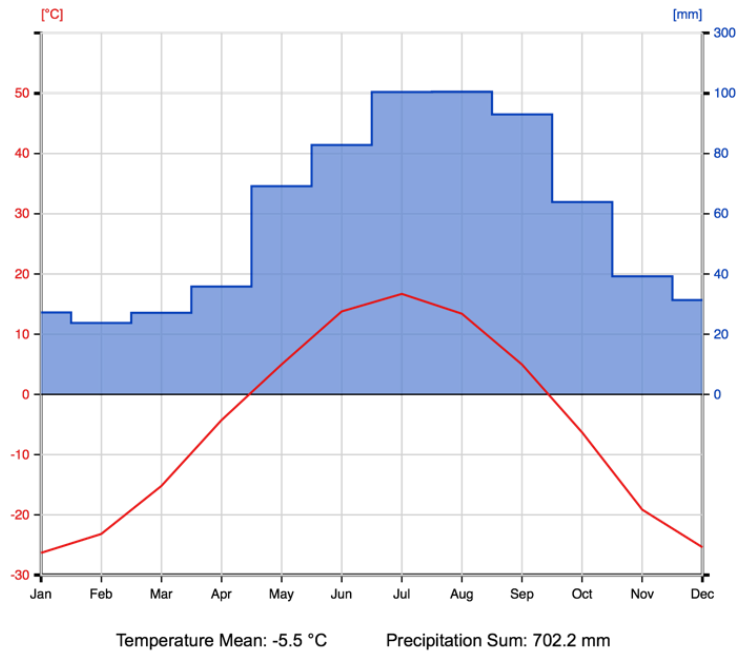
Section B

B. 1.

Aldan, Russian Federation (Asian Sector)

58.62N, 125.37E | Elevation: 682 m |

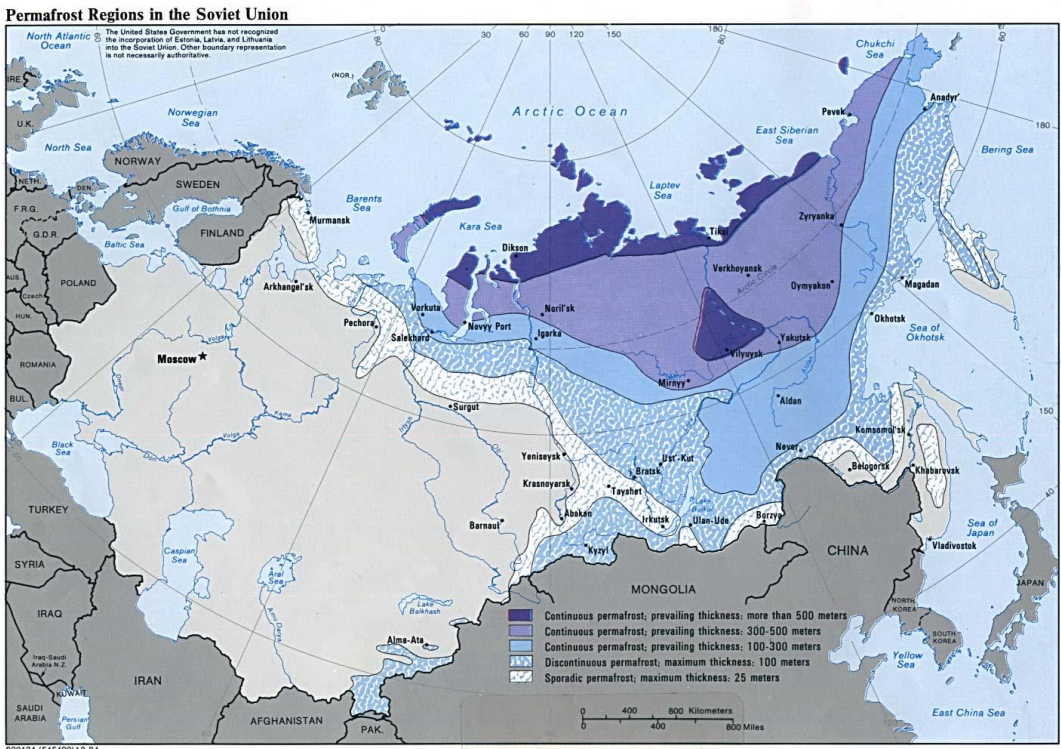
Years: 1980-2009



Simplified climate chart of Aldan City, Russia (data source: [www.ncdc.noaa.gov/ghcnm](http://www.ncdc.noaa.gov/ghcnm) and [ClimateCharts.net](http://ClimateCharts.net)).

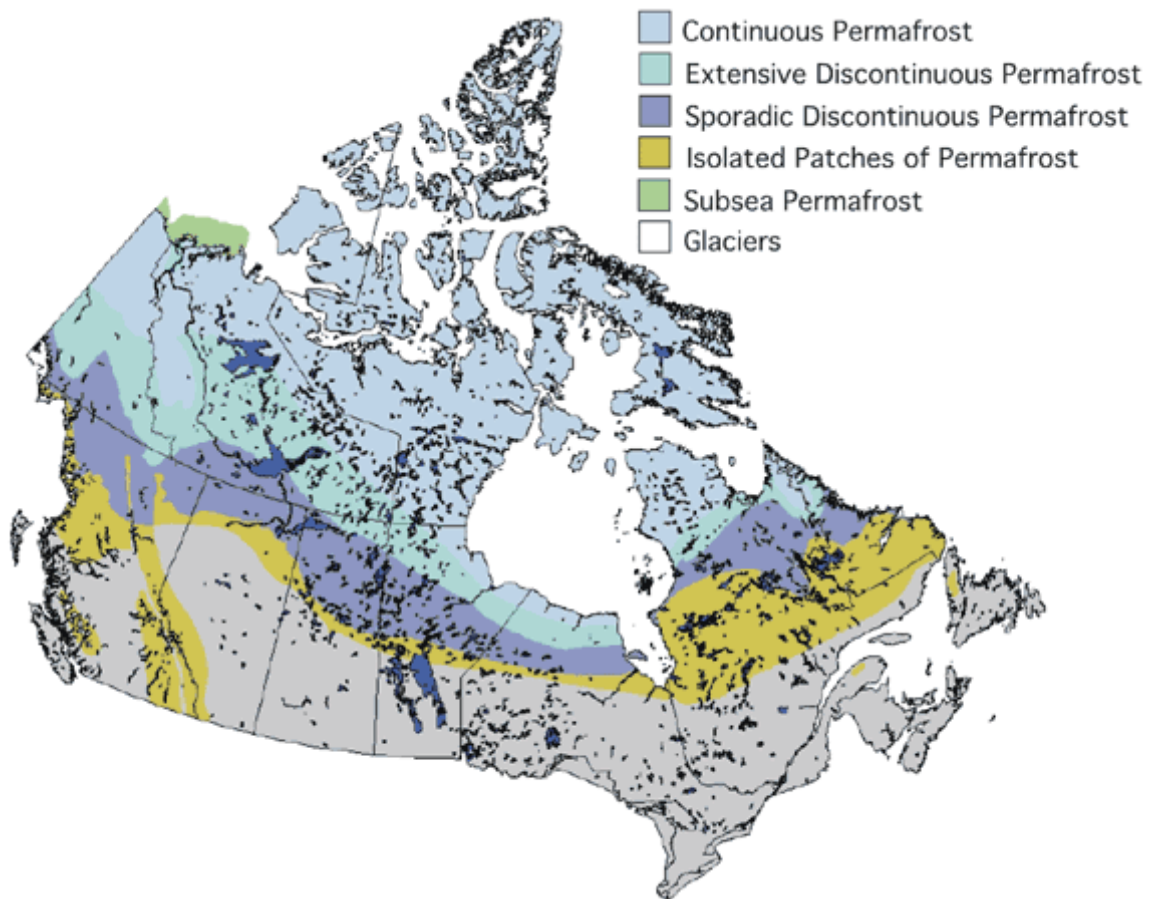
	1	2	3	4	5	6	7	8	9	10	11	12
T [°C]	-27.7	-27.9	-26	-17	-4.8	5.5	10.8	9.1	2.8	-7.8	-20.3	-24.7
P [mm]	5.7	5.6	4.2	6.7	6.2	11.7	20.3	29.6	16.2	18.2	9.1	8.2

MAAT and MAP (years: 1960–1989) of Tuktoyaktuk (N69.45, W133, 18 m a.s.l.), Northwest Territories, Canada.



Permafrost regions of former Soviet Union in 1984 (source: Central Intelligence Agency).

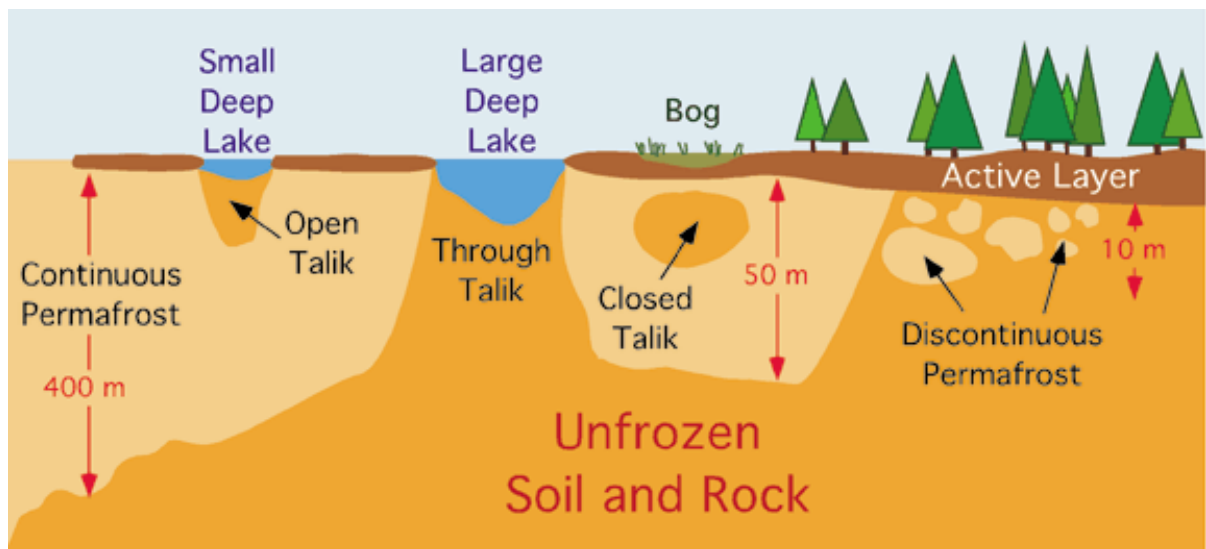
4



*Distribution of the various types of permafrost in Canada. This map does not identify areas of alpine permafrost (Source: Natural Resources Canada - Terrain Sciences Division - National Permafrost Database).*

## B.2

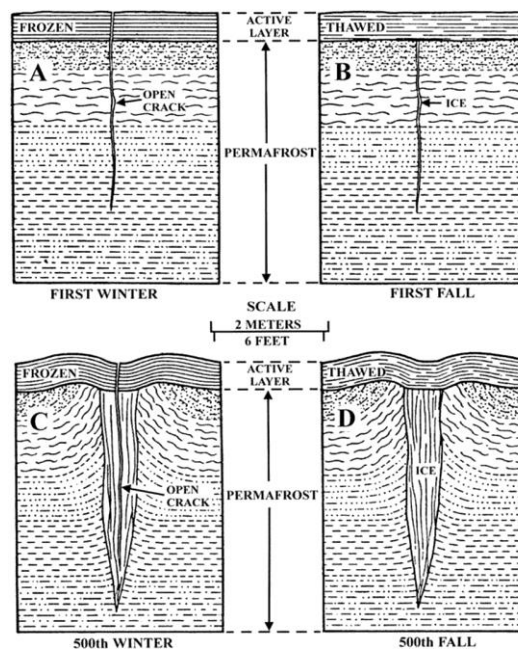
5



*Vertical cross section of the transition zone between continuous and discontinuous permafrost (<http://www.physicalgeography.net/fundamentals/10ag.html>).*

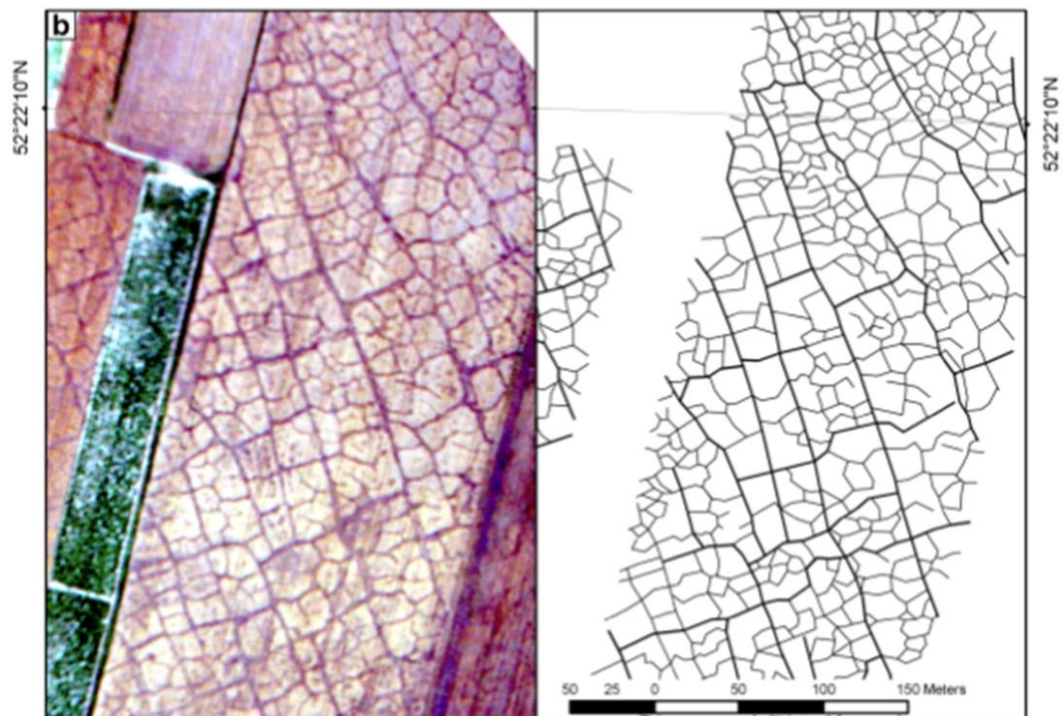


6



*Mechanics of thermal contraction cracks and ice-wedge polygons in permafrost (Lachenbruch, 1962).*

7



*Polygonal cropmarks in Poland: mixed, orthogonal and non-orthogonal polygons (Ewertowski, et al. 2017).*



8



*Unrestored building in Dawson City, Yukon (Source: <https://walkaboutreport.wordpress.com/2010/10/25/dawson-city-yukon/>).*

9



*Chief Eddie Hoffman Highway, seen on June 28, is the main thoroughfare in Bethel (Alaska), and one of few paved roads. It has become a roller coaster of a ride over the past couple of years (Lisa Demer / Alaska Dispatch News).  
Source: [https://www.adn.com/alaska-news/rural-alaska/2017/07/07/the-permafrost-is-dying-bethel-sees-increased-shifting-of-roads-and-buildings/#\\_](https://www.adn.com/alaska-news/rural-alaska/2017/07/07/the-permafrost-is-dying-bethel-sees-increased-shifting-of-roads-and-buildings/#_)*

## Section C

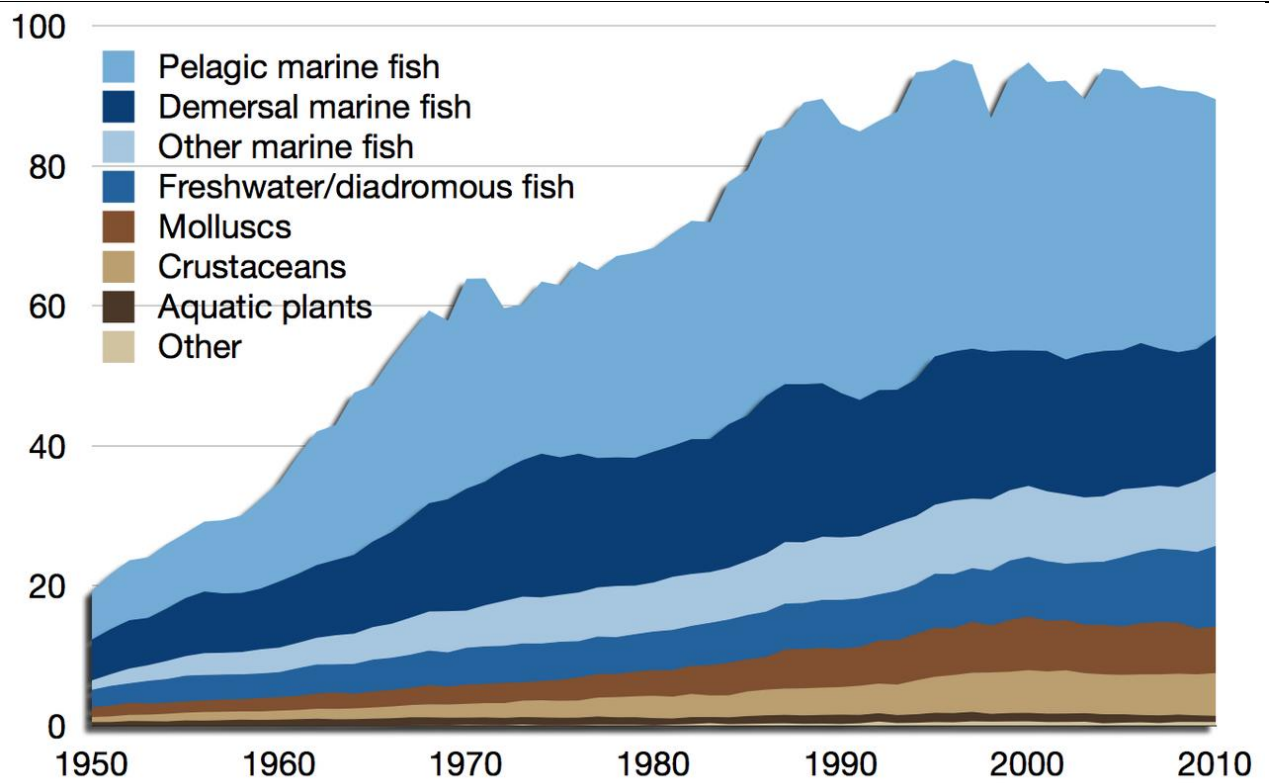
### C. 2.

1



Price of Fishmeal, Peru Fish meal/pellets 65% protein, CIF, US Dollars per Metric Ton, indexmundi.com

2



Global wild fish capture in million tonnes, 1950–2010 (Wikipedia)



### C. 3.

3

	Annual wild fish catch, total, million tons		population (millions)	GDP (million USD)
	2003-2012 average	2013	2013	2013
China	12.759	13.97	1385.6	11,199,145
Indonesia	4.745	5.62	249.9	932,259
USA	4.734	5.11	320.1	18,624,475
Russian Federation	3.376	4.09	142.8	1,283,163
Japan	4.146	3.62	127.1	4,940,159
Peru	7.063	5.83	30.4	192,207
India	3.085	3.42	1252.1	2,263,792
Viet Nam	1.994	2.61	91.7	205,276
Myanmar	1.643	2.48	53.3	63,225
Norway	2.417	2.08	5.0	371,076
Chile	3.617	1.77	17.6	247,028
Philippines	2.244	1.13	98.4	304,905

Leading countries in World's fishing Industry

### C. 4.

4

#### Employment dependency on fishing in EU regions (2011)

Fishing dependency in NUTS 3 regions (measured as the ratio between the fishing fleet employment and total employment in the region):

Very low to low  
Low to moderate  
Moderate to high  
High to very high

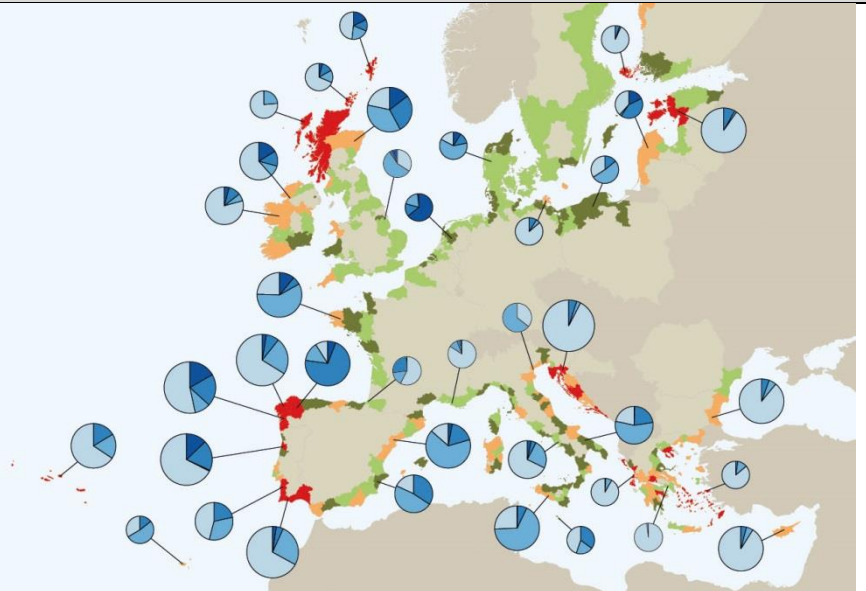
Top 10 NUTS 3 regions (regions at level 3 of the Nomenclature of Territorial Units for Statistics):  
Lefkada (EL), Shetland Islands (UK), Eilean Siar (Western Isles) (UK), Samos (EL), Zadarska županija (HR), Dubrovačko-neretvanska županija (HR), Orkney Islands (UK), Preveza (EL), El Hierro (ES), Kefallinia (EL).

Employment according to vessel size categories (size of pie charts depends on the total amount of people employed):

<12 m 12-24 m 24-40 m >40 m

Up to 5 000 fishermen  
Up to 1 500 fishermen  
Up to 1 000 fishermen  
Up to 500 fishermen

Source: Scientific, Technical and Economic Committee for Fisheries (STECF), The 2015 Annual Economic Report on the EU Fishing Fleet (STECF-15-07), Luxembourg, Publications Office of the European Union, 2015 (Report EUR 27420 EN, JRC 97371).

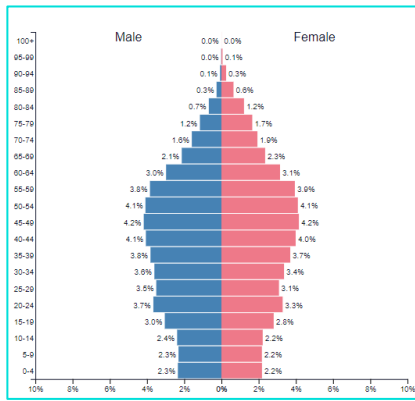


Economic dependency on fishing in EU regions, 2013 source:  
<https://ec.europa.eu/fisheries/sites/fisheries/files/10ff.jpg>

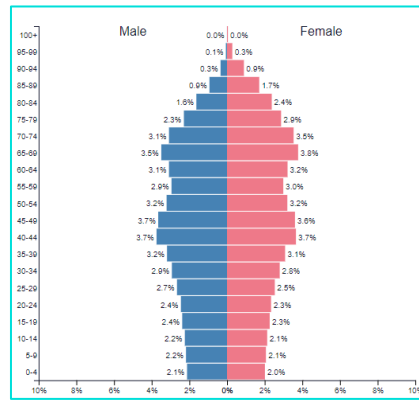
## Section D

### D. 1.

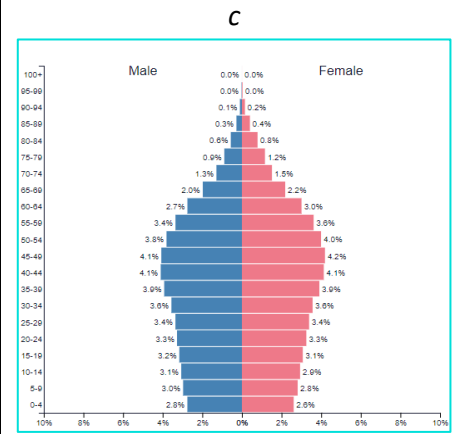
1



a



b



c

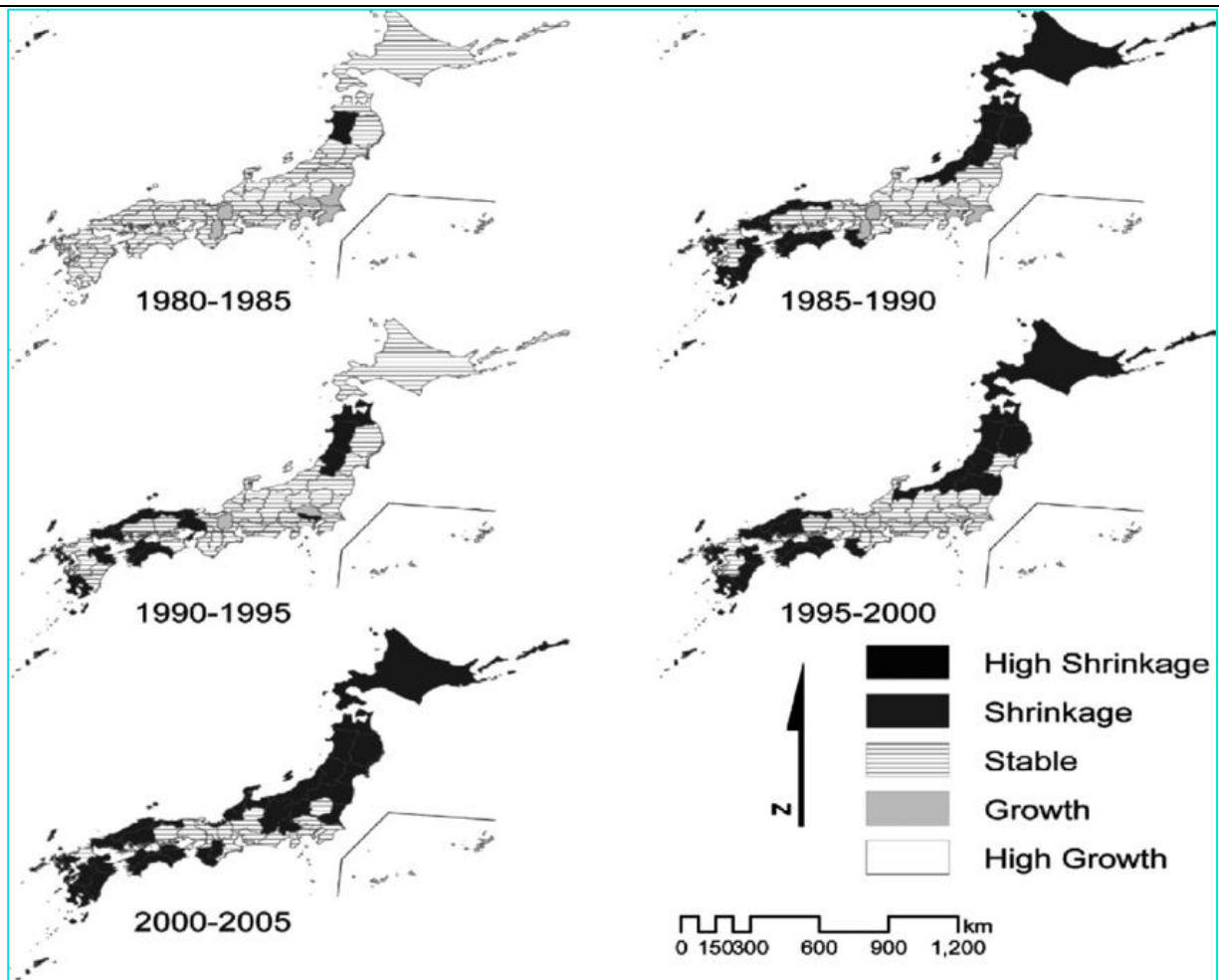
2

**Table 6**  
Japan's ageing population statistics.

	2005 (%)	2006 (%)	2007 (%)	2008 (%)	05-08 difference (%)
Japan	20.1	20.8	21.5	22.1	2
	Ave. 2005 (%)	Ave. 2006 (%)	Ave. 2007 (%)	Ave. 2008 (%)	Ave 05-08 difference (%)
Top 10 shrinking cities	24.98	25.69	26.56	27.17	2.19
Top 10 growing cities	13.91	14.49	15.16	15.82	1.91

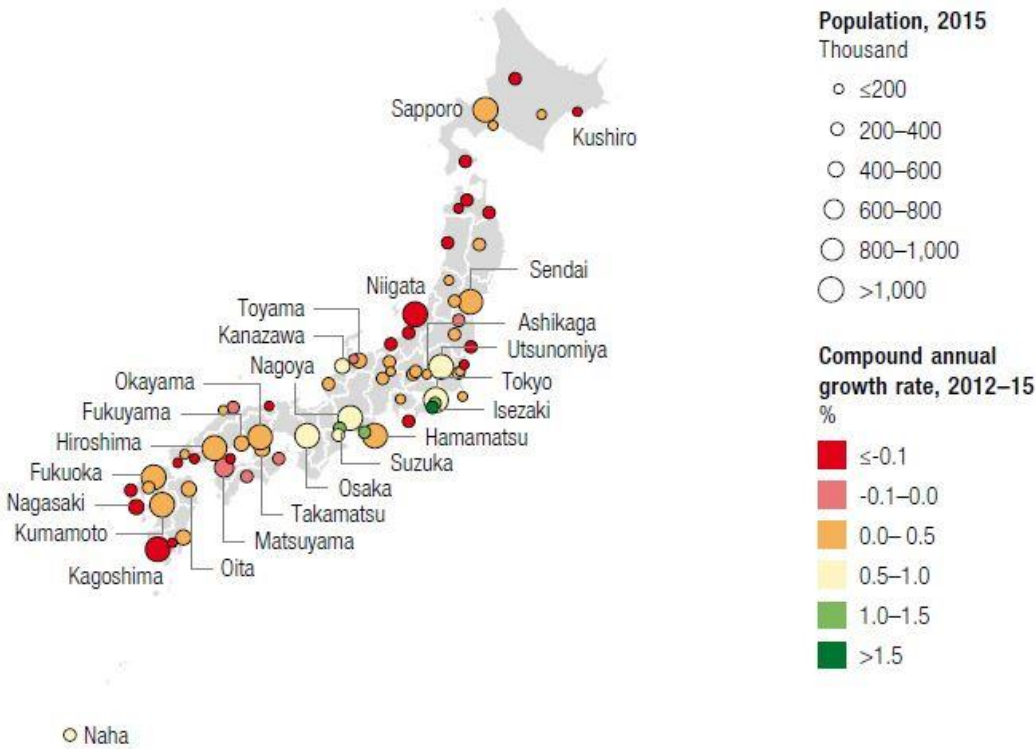
Source: Calculated from the each top 10 city's population statistics by Yahagi (access 11th May 2010) from National Institute of Population and Security Research.  
Note: Cities with a population over 100,000.

3





# Japan population growth rate



## D. 2.



7	 
8	  <p><a href="https://www.theguardian.com/cities/2014/aug/15/yubari-japan-city-learns-die-lost-population-detroit">https://www.theguardian.com/cities/2014/aug/15/yubari-japan-city-learns-die-lost-population-detroit</a></p>

## Section E

### E. 3.

1	<p>The Bwindi Impenetrable National Park in Uganda, is a famous spot for ecotourists due to the park's mountain gorillas. <b>A government official described</b> Bwindi with the following words:</p> <p><i>"Bwindi is one of the parks where we have seen most benefits to communities and most involvement of communities. . . It is the first park where we started revenue sharing. . . There are a number of initiatives benefiting the communities, which have made people appreciate the existence of the park. . . Also in the same area people sacrificed their land and said 'let us save these gorillas'. When you reach there you really see integration and willingness."</i></p> <p>Ecotourism according to the <b>Ministry of Tourism</b>, Wildlife and Antiquity : <i>"Ecotourism, to the tourism stakeholders and communities in Uganda, is an important and practical tool -an efficient way to add economic value to threatened natural areas and cultural sites"</i></p> <p>Local <b>people</b> described the Bwindi Impenetrable National Park with the following words:</p> <p><i>"So actually the park is useless to us. It is useful to white people only. They come and enjoy it. They come and see the gorilla and other animals."</i></p> <p><i>"The revenue-sharing process is not transparent. We have a problem with our local political leaders. For example, I remember an incident where the head of the committee to distribute goats was from a family of six people. That family got six goats, while other families got nothing. . . I told you that revenue sharing and the park as such would be beneficial to local people if the distribution of benefits was fair. . . In the mentioned incident, there was somebody in this village who is a close friend to the head of the committee, and in this village he was the only person who received a goat. Yet in the chairperson's village, about ten or more people received a goat or something else."</i></p>
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<p><i>“Now you wonder why you are close to the park. A tourist pays USD 500, and the community share is to be only US\$5. This is not enough. They should give people at least US\$100. Let us compare it to the preparation of a meal: If you were a cook, would you prefer to get the smallest or the biggest portion to eat? Now, we the park neighbours are the cooks of that meal, but what do we get? The smallest portion. Is that fair?”</i></p> <p><i>“This park generates many benefits to us. For example, our children get school fees through working in the tourism business. They work as porters during holidays and earn some money.”</i></p> <p><i>“We have some people from our village who work in the park as porters and guides, but as a general rule, they are few. Most of the opportunities to fill these positions are given to the people downhill who have nothing to do with the park. They are given the jobs, yet it is us who are the park’s neighbours, who suffer all the ills of the park. We are the ones who should be given such opportunities.”</i></p> <p><i>“Crop raiding was the most important reason for my dropping out of school. . . Around November and December it is time to do end of year exams for one to be promoted to the next class. This is the time when the baboons do havoc in the fields. Parents would make me go guarding against the animals instead of going to school, and that is why I failed to continue at school.”</i></p> <p><i>“The issue of crop raiding bothers us, because when the wild animal destroys the gardens, we are not allowed to chase it and kill it in the park. If we do that, we risk even to be killed ourselves by park rangers.”</i></p> <p>And finally some views from <b>tourists</b>:</p> <p><i>“I don't think teaching a child how to carve yet more gorillas should be an integrated part of learning. How many gorillas can the tourist buy? Should their time not be spent learning to support themselves instead of depending on tourists? And they danced every night we were here (four times), when do they have time to be kids? They are not a tourist attraction.”</i></p> <p>Quotes from <b>researchers</b> investigating the Bwindi case:</p> <p>[For the creation of the Bwindi Impenetrable National Park] <i>“[u]nder a Memorandum of Understanding signed in June 1992, it was agreed that all farmers and residents would leave the park, and in return Uganda National Parks (UNP) would make payments to allow people to resettle, would also seek donor support to improve agricultural self-reliance in the area, construct a road, and build an air strip [...]USAIDs “Action Program for the Environment” (APE) provided funds for the direct payments to those evicted from the new park, for physical structures, permanent crops, trees, and land (at a nominal 10% of its value). <b>These payments were made to the “owner” (not necessarily also the occupier) of the land.</b>” (Emphasis added)</i></p>	<p>Source of quotes:</p> <p>Adams, W. M. and Infield, 2003. Who is on the Gorillas Payroll? Claims on Tourist Revenue From a Ugandan National Park. Vol. 31. No. 1: 177-190.</p> <p>Tumusiime, D. M. and Svarstad, H. 2011. A Local Counter-Narrative on the Conservation of Mountain Gorillas. <i>Forum for Development Studies</i>. 38, No.3: 239-265.</p> <p>Laudati, A. 2010. Ecotourism: the modern predator? Implications of gorilla tourism on local livelihoods in Bwindi Impenetrable National Park, Uganda. <i>Environment and Planning D: Society and Space</i>. Vol. 28: 726 – 743.</p> <p>Ministry of Tourism, Wildlife and Antiquity, Republic of Uganda. 2011. <i>Eco-tourism</i>. <a href="http://tourism.go.ug/index.php?option=com_k2&amp;view=item&amp;id=2:eco-tourism">http://tourism.go.ug/index.php?option=com_k2&amp;view=item&amp;id=2:eco-tourism</a> Accessed: 02/03/2017</p>
<p align="center"><b>Section F</b></p>	

## F. 2.

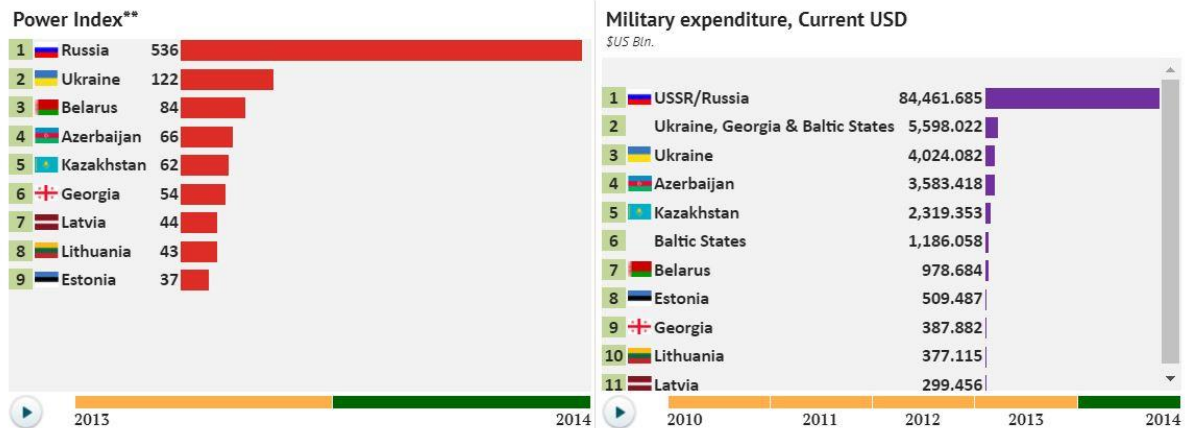
1



Source: [https://www.nato.int/docu/Review/2016/Also-in-2016/security-baltic-defense-nato/files/3349\\_tn718.jpg](https://www.nato.int/docu/Review/2016/Also-in-2016/security-baltic-defense-nato/files/3349_tn718.jpg)

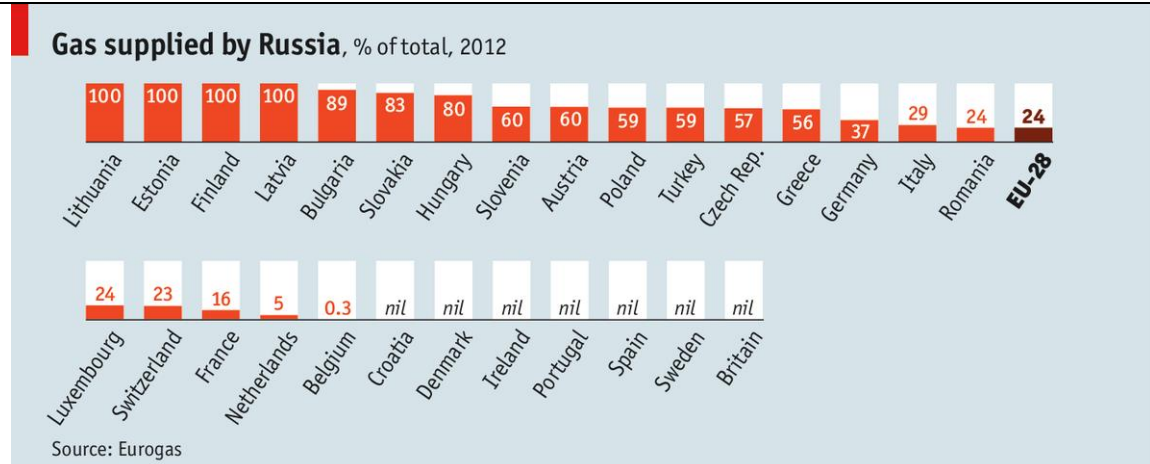
## F. 3.

2



Source: <https://knoema.com/infogra,phics/dopfhqd/fsu-countries-military-strength-magnifies-value-of-nato>

3



Source: <https://www.economist.com/news/briefing/21600111-reducing-europes-dependence-russian-gas-possible-but-it-will-take-time-money-and-sustained>



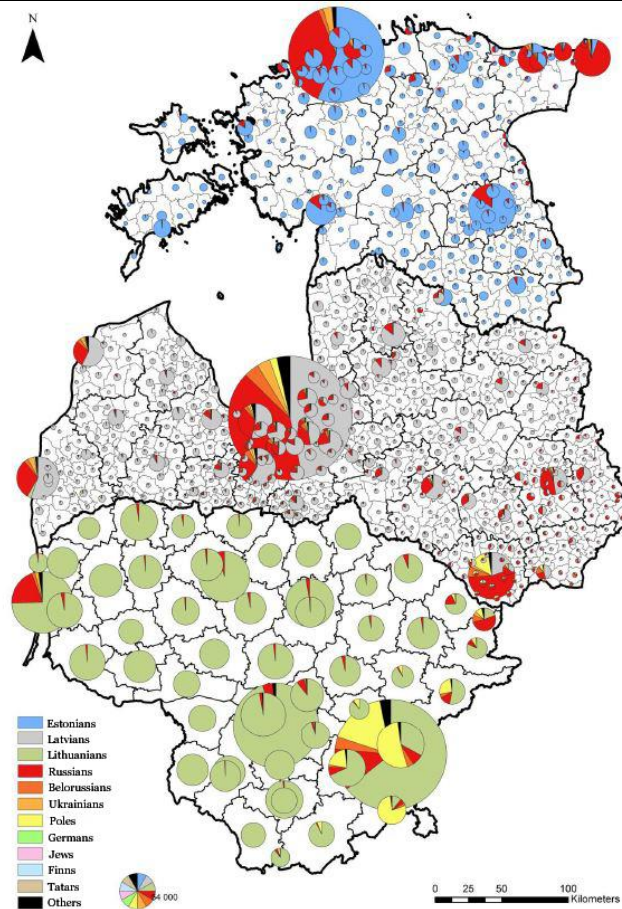
4



„You cannot be outside NATO, but want everything that NATO can give” Anders Fogh Rasmussen, Former NATO Secretary-General

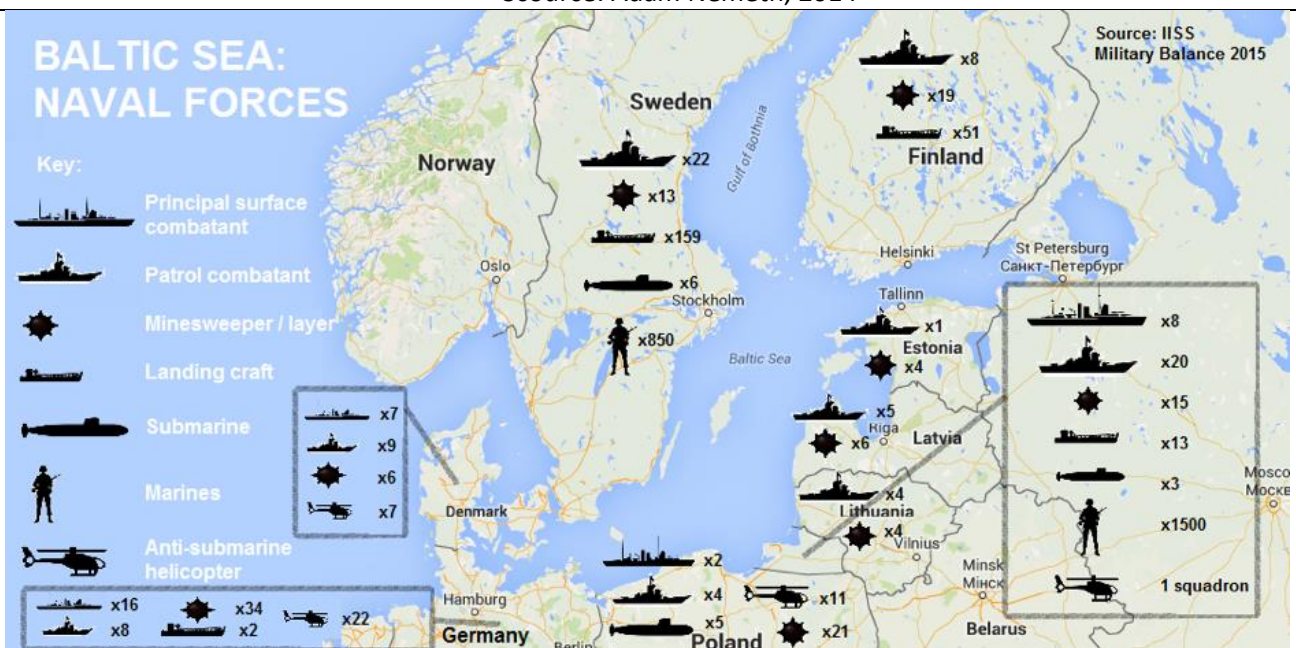
Source: <http://www.quotationof.com/images/anders-fogh-rasmussen-5.jpg>  
<https://www.thelocal.xy/20130114/45608>

5



*Ethnic structure of the Baltic states. Notice: Red colour indicates the presence of Russian language population*  
 Source: Ádám Németh, 2014

6



<http://i.imgur.com/GbQQDOq.png>