HANDOUT

World Water Resources -1.4 billion km^3

Most of the water is located in the S. H. (oceanic hemisphere) while most of the land is located in the N. H. (land hemisphere)

Location	Percentage	Amount (km^3)	Annual Renewal Rate
Oceans	97.36	1,389,020,000	3100-37000 yrs
Glaciers & Ice caps	2.045	29,180,000	16000 yrs
Groundwater	0.581	8,288,000	300 yrs (<= 1 km),
Lakes* (fresh & salt)	0.0161	229,000	4600 yrs (1-2 km)
Soil	0.005	67,000	10-100 yrs
Atmosphere	0.001	13,000	280 days
Biota	0.0001	1400	9-12 days

* 80% is contained in just 40 lakes while 50% is contained in just 7 lakes:

Lake, Location	Volume (km^3 [m^3]	Surface Area (km^2[mi^2])	Depth (m [ft])
Baikal, Russia	22,000 (5280)	31,500 (12,160)	1620 (5315)
Tanganyika, Africa	18,750 (4500)	39,900 (15,405)	1470 (4923)
Superior, U.S./Canada	12,500 (3000)	83,290 (32,150)	397 (1301)
Michigan, U.S.	4,920 (1180)	58,030 (22,400)	281 (922)
Huron, U.S./Canada	3,545 (850)	60,620 (23,400)	229 (751)
Ontario, U.S. /Canada	1,640 (395)	19,570 (7,550)	237 (777)
Erie, U.S./Canada	485 (115)	25,670 (9,910)	64 (210)

Even though about 71% of the Earth is covered with water, approx. 97% is in the oceans & 3% is freshwater. From this freshwater, we must subtract:

a) Agricultural water
b) Industrial water
c) Glaciers
d) Atmosphere
e) Water at depth > 1000m
f) Polluted
g) Inaccessible & too expensive

This leaves only -0.003% available for human use & even that is unevenly distributed.