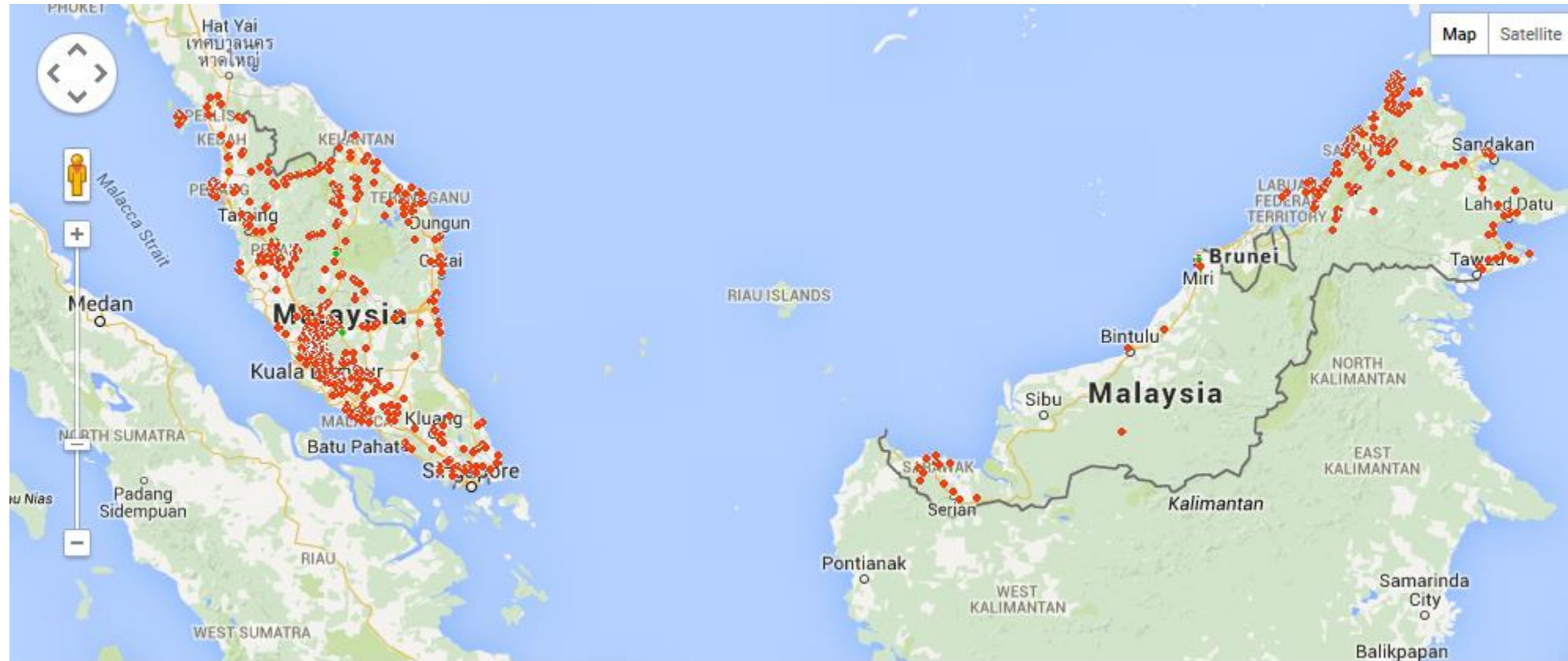




Landslides Education Workshop (translated in English Language) Please refer to page 22 for Malay Language Version(Original)





Question 1. Do you know this road sign?

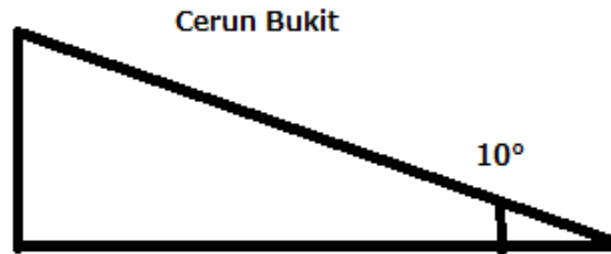
1. Yes() 2. No

Landslides Photo Behind the Road Sign

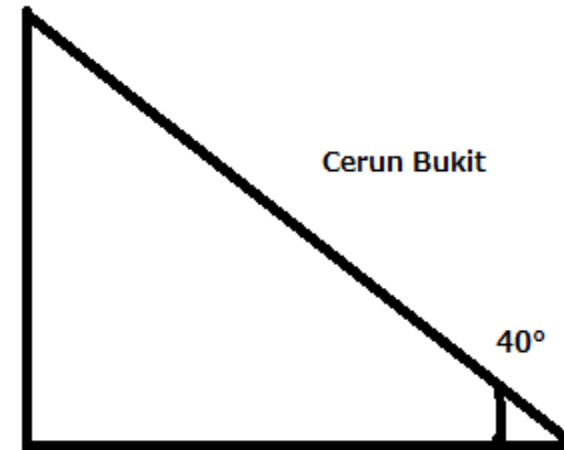
“Landslides, Danger!”



Hill Slope A



Hill Slope B



Question 2. Which slope will be in high risk after heavy rain?

A. Slope A

B. Slope B

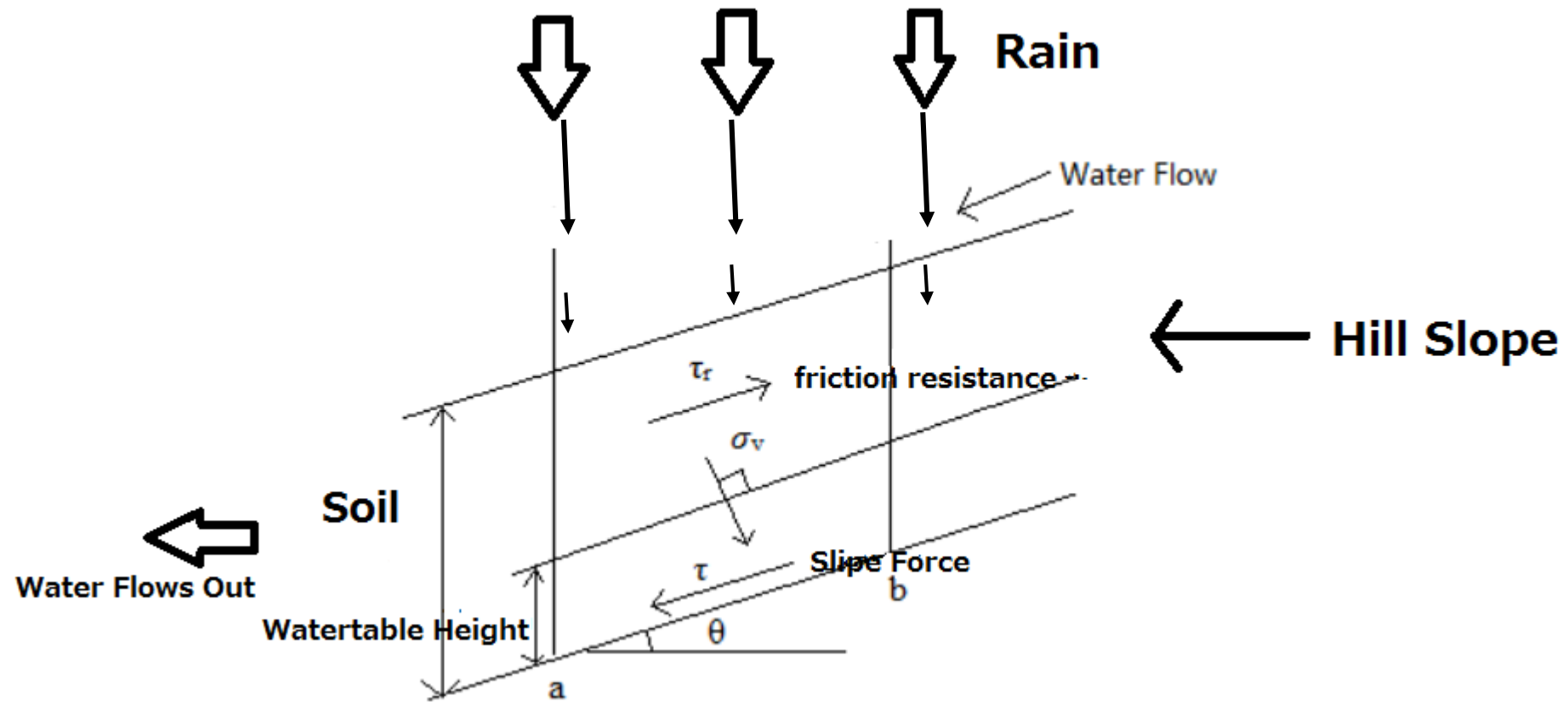
A



B



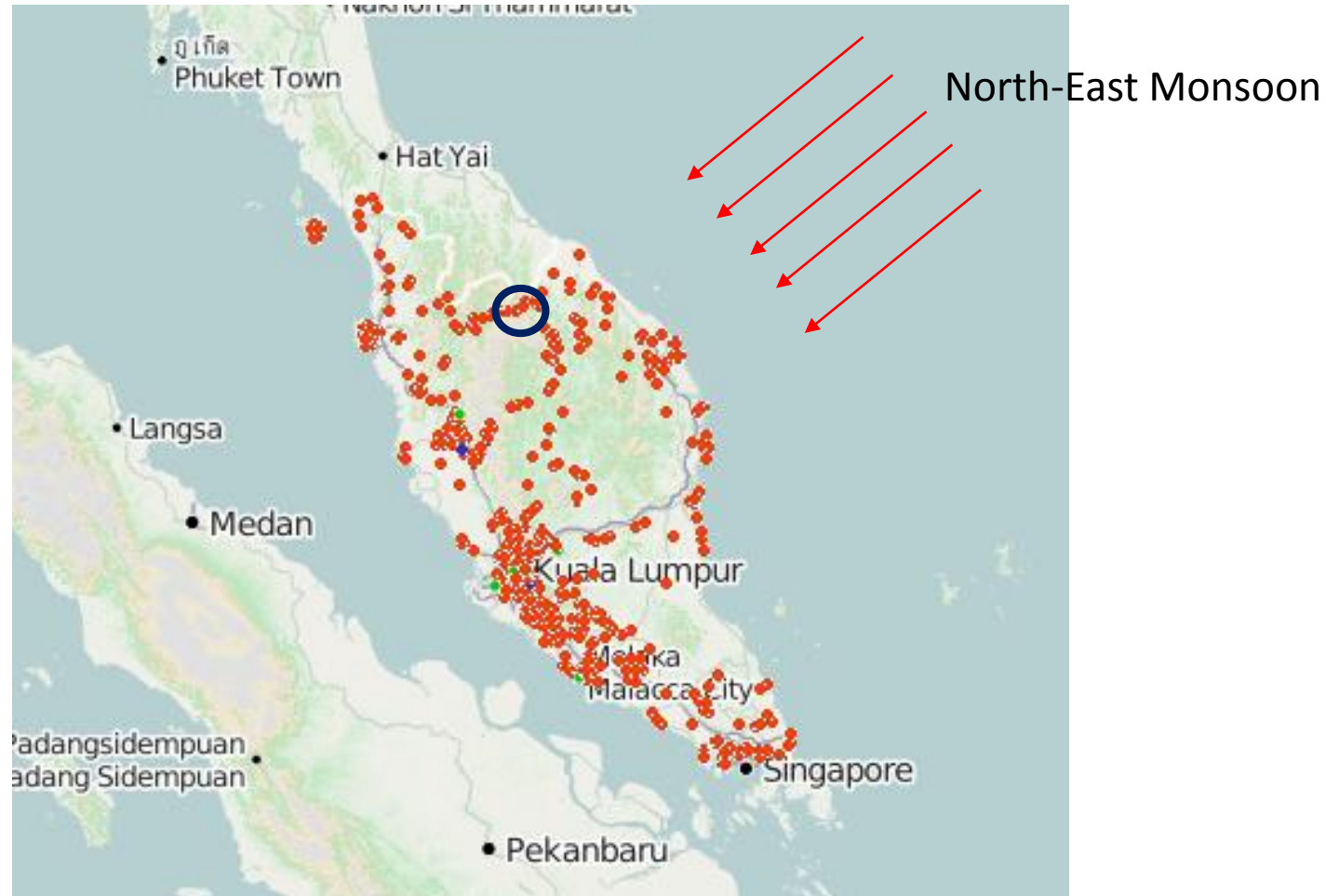
Question 3. Which hill will have high risk of landslide after heavy rain?



Question 4. What will happen if the volume of flowing out water is less than the volume of water penetrating in the slope?

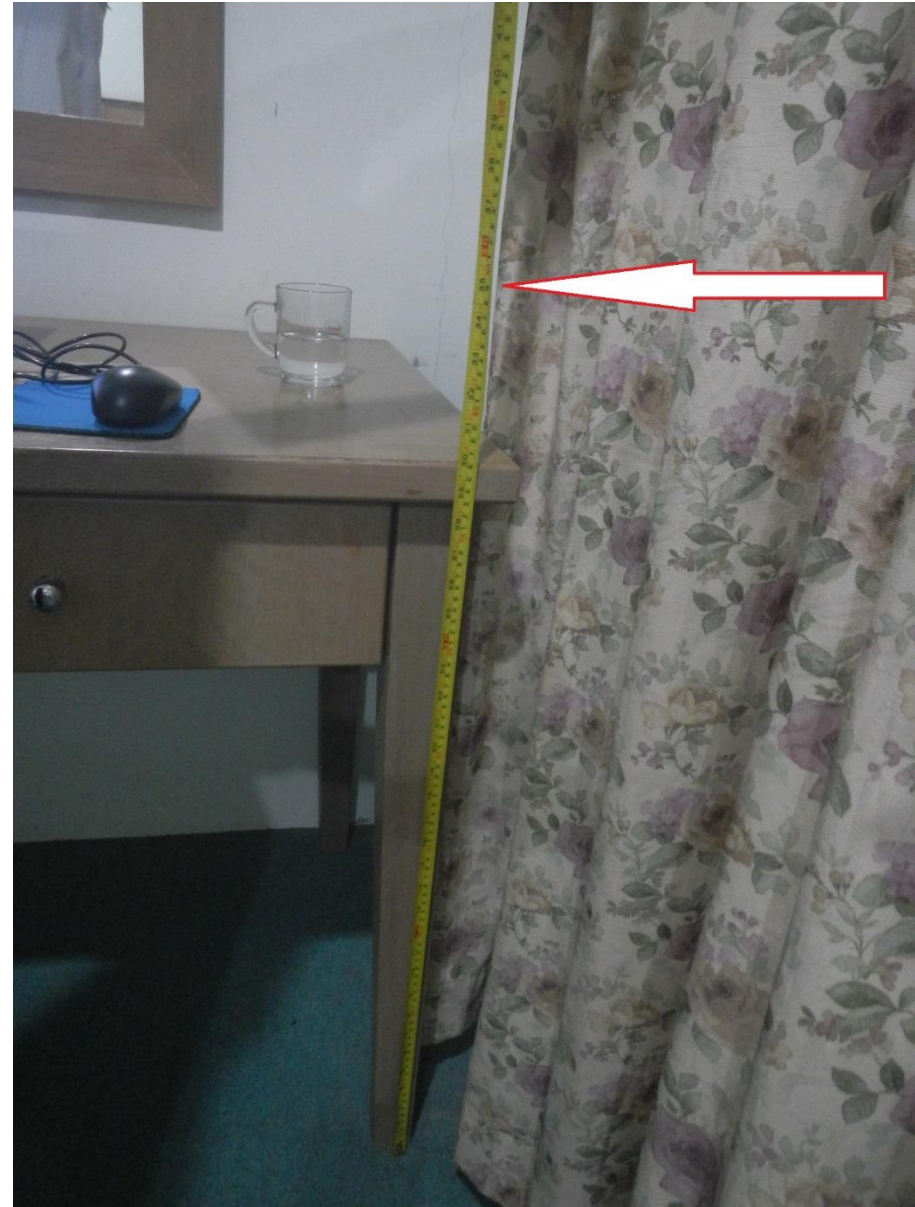
By the end of December, North-East Monsoon wind will bring heavy rain to east coast of Peninsular Malaysia

(890mm in 2 weeks, Dec., 2014)



How height is 890mm?

The height of 2 weeks rain during North-East Monsoon season



Damaged house after landslide (1)



House was badly damaged after landslides occurred in Hiroshima, Japan

Damaged house after landslide (2)



The house was seriously damaged after heavy rain in Cameron Highlands, Malaysia

Road was cut off by landslide (3)



Road(East-West Highway) was cut off after long rain in December 2014. It caused huge economical loss!

Spring water is pure = The slope is stable



Spring water is impure = The slope is in risk condition



Conclusion

Please be cautious when and after heavy rain(especially in the slope area)!

Appliances to measure rainfall intensity,
wind speed and direction, temperature
and direction



Anemoscope

Anemometer

Rain gauge

Compass

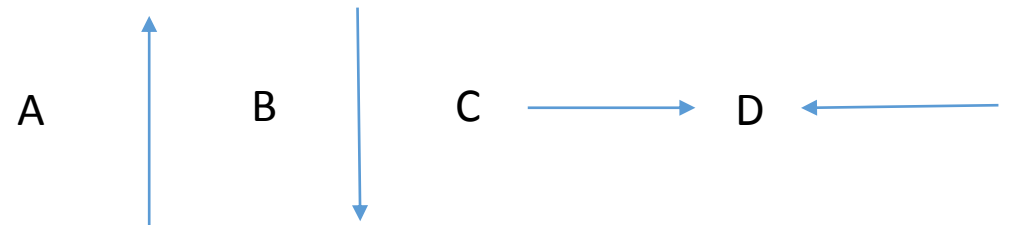
Thermometer

Weather Station



Question 5. What is the room temperature?

Question 6. Which direction is north?

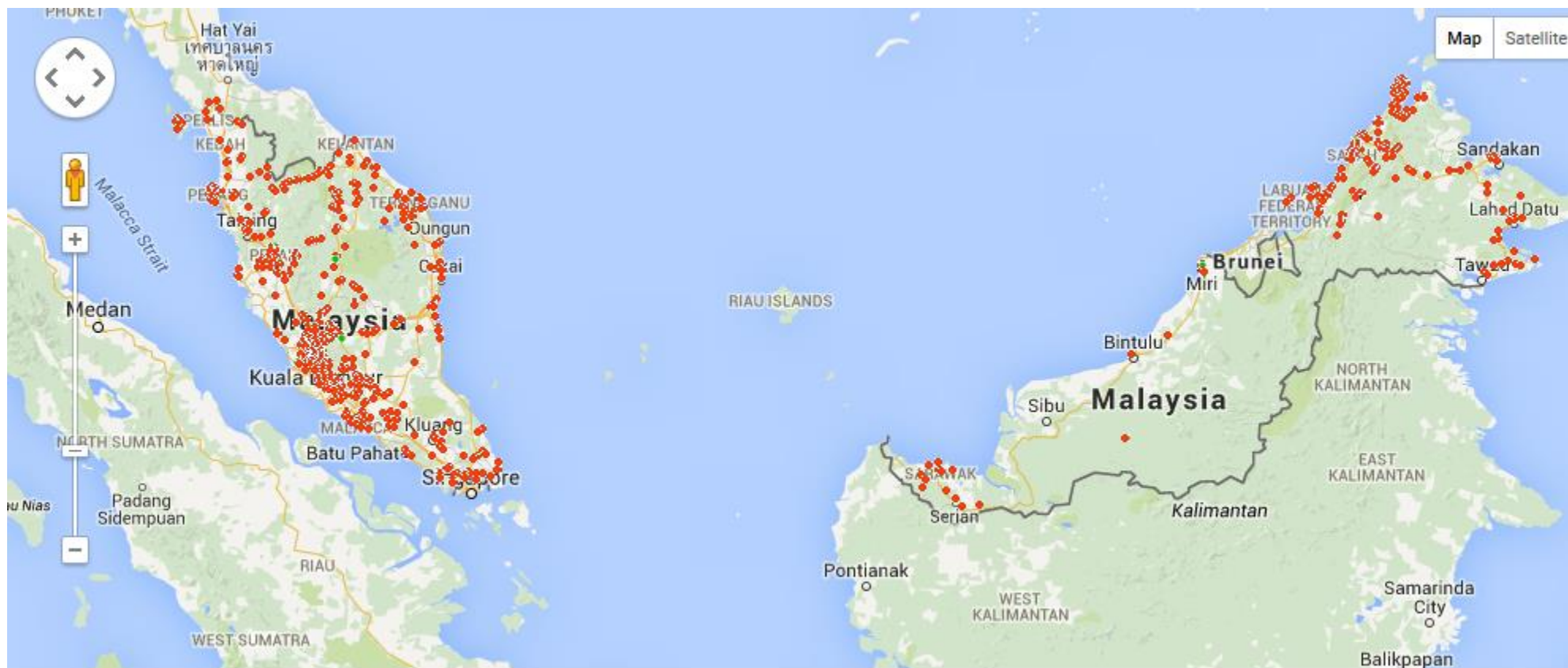


Knowledge on how to use these
appliances is VERY IMPORTANT in
future!

Thank You
for
your kind attention

Below is the contents in Malay Language
(used in education workshop)

Kelas Berkenaan dengan Tanah Runtuh





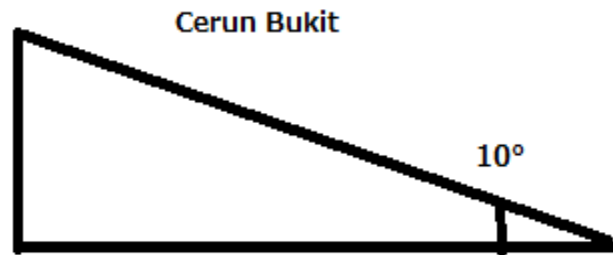
Soalan 1. Tahukah apa tanda ini?

1. Ya() 2. Tidak

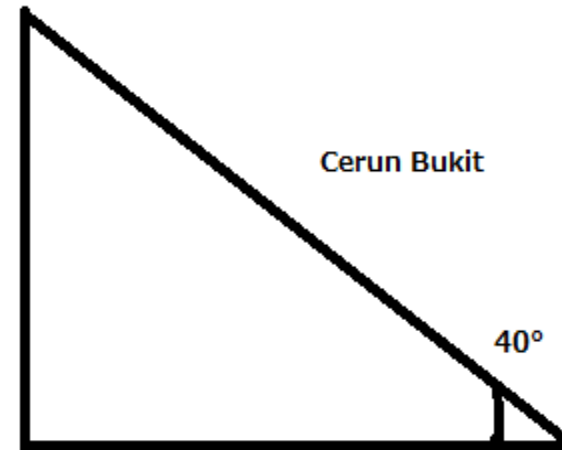
Foto Tanah Runtuh di Belakang Papan Tanda “Bahaya, Tanah Runtuh!”



Cerun Bukit A



Cerun Bukit B



Soalan 2. Yang Mana Lebih Bahaya selepas Hujan Lebat?

A. Cerun Bukit A

B. Cerun Bukit B

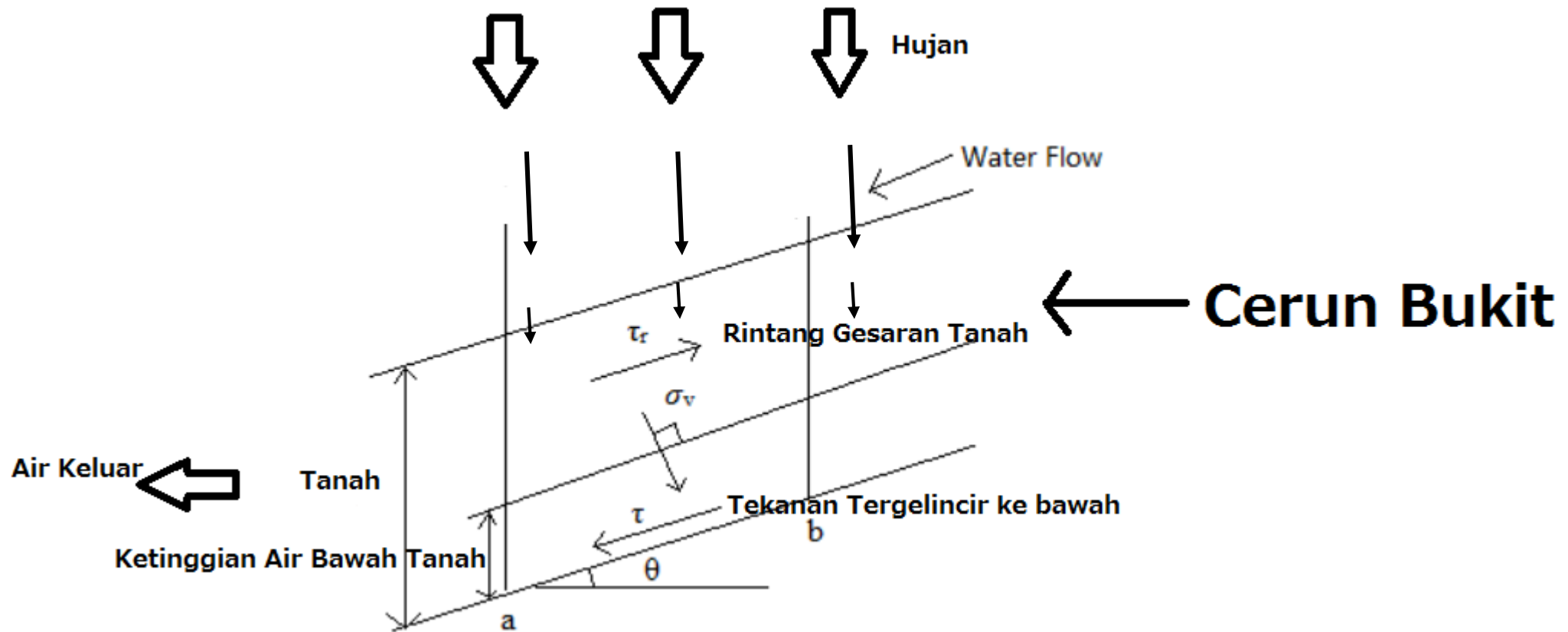
A



B

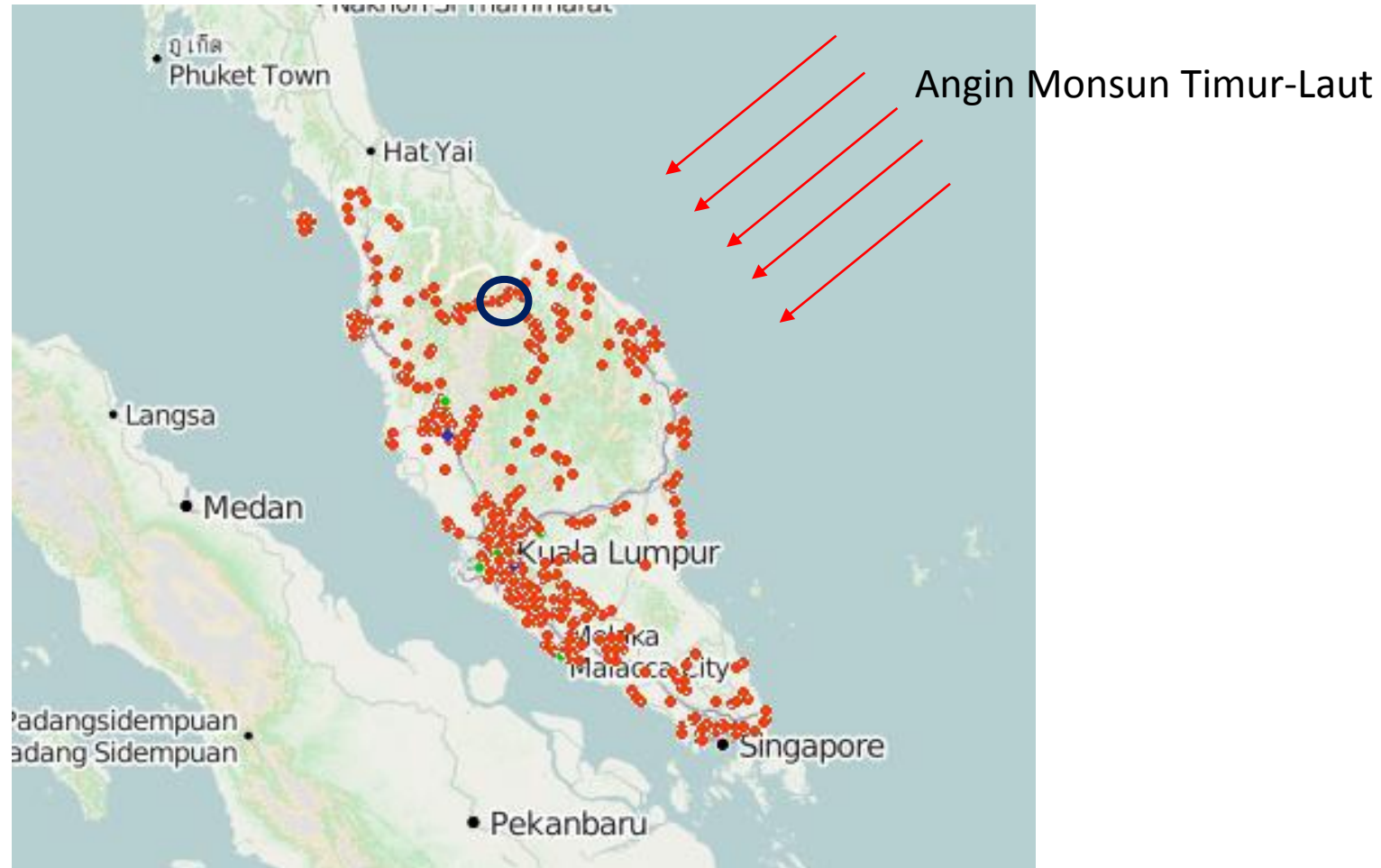


Soalan 3. Bukit yang mana kemungkinan besar tanah runtuh selepas hujan lebat?



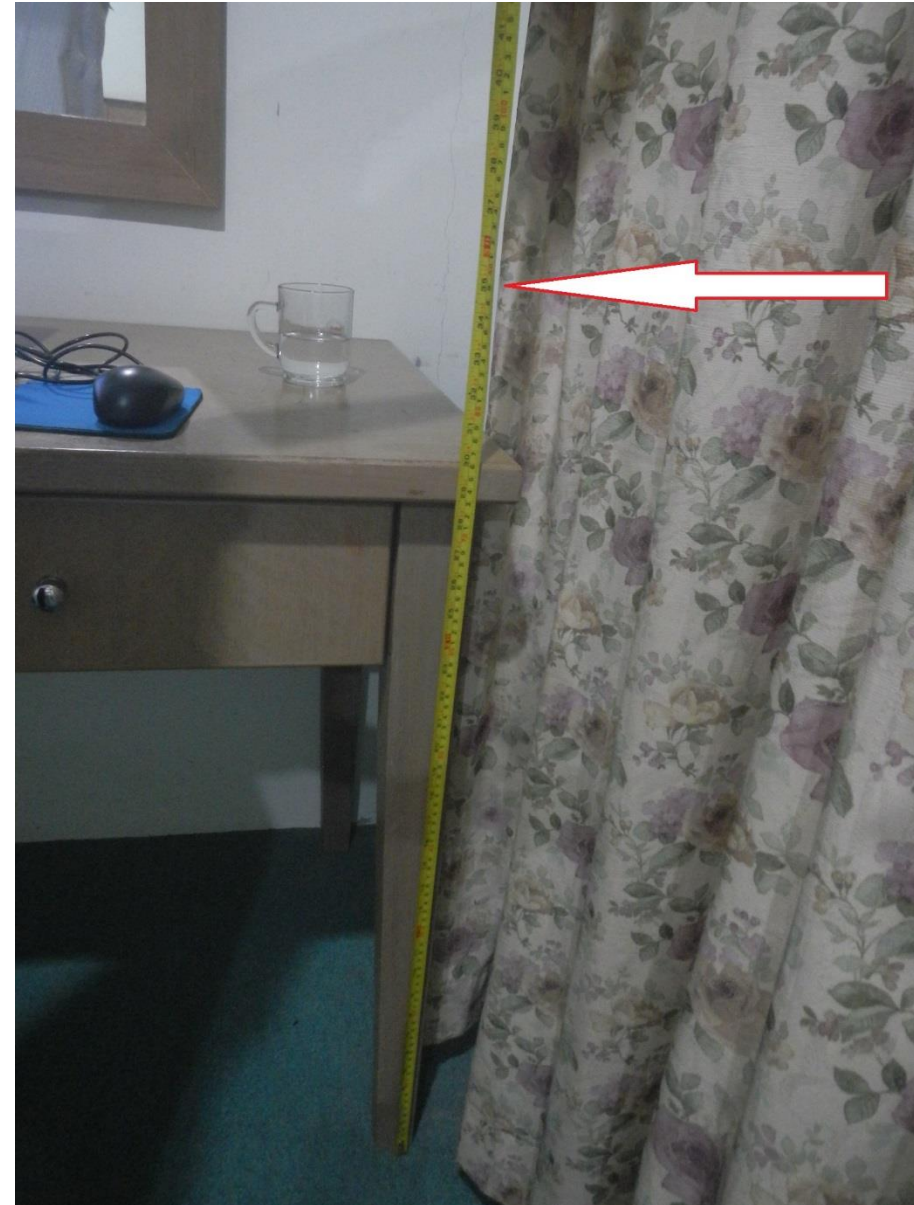
Soalan 4. Apa akan terjadi pada bukit kalau isipadu air keluar kurang daripada isipadu hujan masuk ke dalam tanah di cerun bukit?

Pada akhir Bulan Disember(12), angin monsun akan tiup mengakibatkan hujan lebat di pantai timur Semenanjung Malaysia (890mm dalam 2 minggu, Dis., 2014)



Ketinggian hujan sebanyak 890mm sama
dengan ?

Ketinggian Hujan Turun pada bulan Desember, 2014 dalam 2 minggu



Kerosakan Rumah Selepas Tanah Runtuh 1



Kerosakan Rumah Selepas Hujan Lebat di Hiroshima, Jepun

Kerosakan Rumah Selepas Tanah Runtuh 2



Rumah musnah selepas hujan lebat di Cameron Highlands, Malaysia

Kerosakan Jalan Kerana Tanah Runtuh



Jalan (Lebuhraya Timur-Barat) terputus selepas hujan berturut-turut pada bulan Disember, 2014. Kerugian ekonomi sangat besar!

Warna Air dari Tanah Jernih = Cerun Stabil



Warna Air dari Tanah Keruh = Cerun Bahaya



Kesimpulan

Selalu berhati-hati pada waktu hujan lebat dan selepas hujan sangat lebat(terutama sekali di kawasan cerun bukit)!

Alat-alat untuk mengukur berapa banyak
keturunan hujan, kekuatan dan arah
angin, suhu dan arah



Alat penentuan arah
angin

Kompas

Termometer

Alat pengukur kecepatan
angin

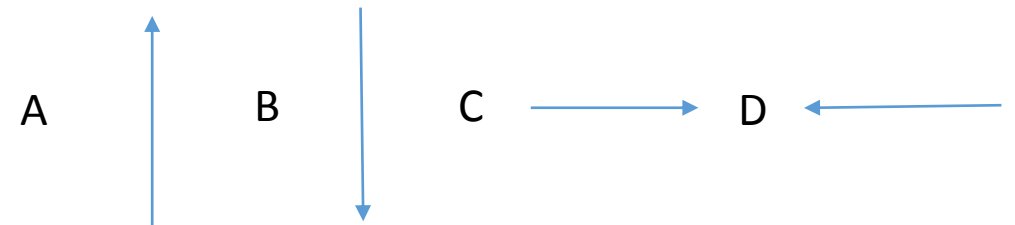
Alat pengukur curah hujan

Weather Station



Soalan 5. Suhu bilik itu berapa?

Soalan 6. Arah Utara ialah mana?



Pengetahuan Penggunaan Mereka
sangat Berguna pada Masa Akan
Datang!

Terima Kasih