

# Public Education for Children on Landslide Mitigation in Yogyakarta

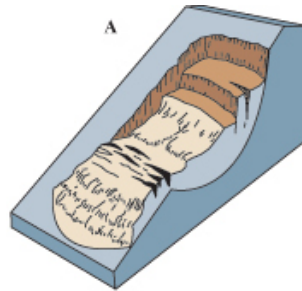
Shanti Lasminingsih  
Dhia Octa Dessandhya Aggaputra  
Deni Welfin  
Rashif Arka Muhammad

# What is a landslide?

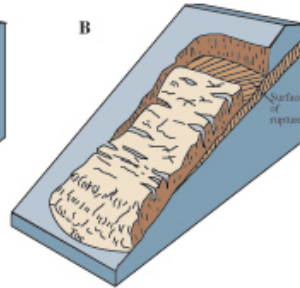
- A landslide is a geological phenomenon which includes a wide range of ground movements, such as rockfalls, deep failure of slopes and shallow debris flows, which can occur in offshore, coastal and onshore environments
- Landslides are caused by gravity, slope gradient, land use, rainfall, etc.



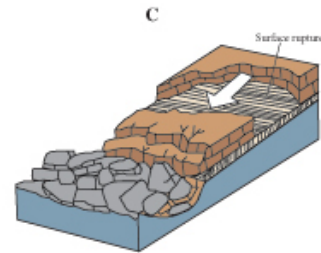
Source: [http://news.xinhuanet.com/english/photo/2012-11/22/c\\_131993033\\_2.htm](http://news.xinhuanet.com/english/photo/2012-11/22/c_131993033_2.htm)



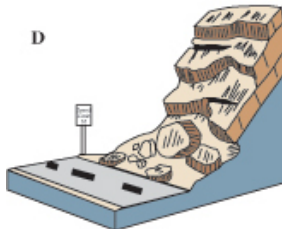
**Rotational landslide**



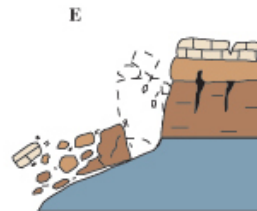
**Translational landslide**



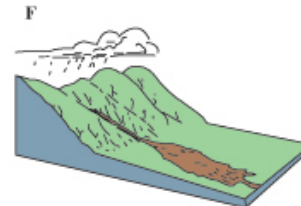
**Block slide**



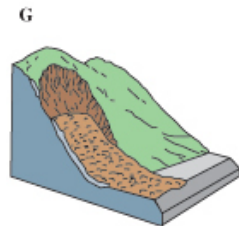
**Rockfall**



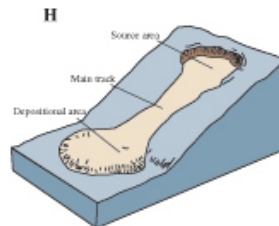
**Topple**



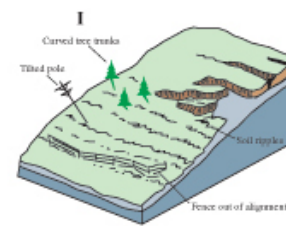
**Debris flow**



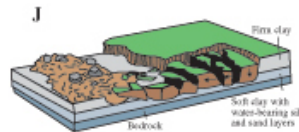
**Debris avalanche**



**Earthflow**



**Creep**

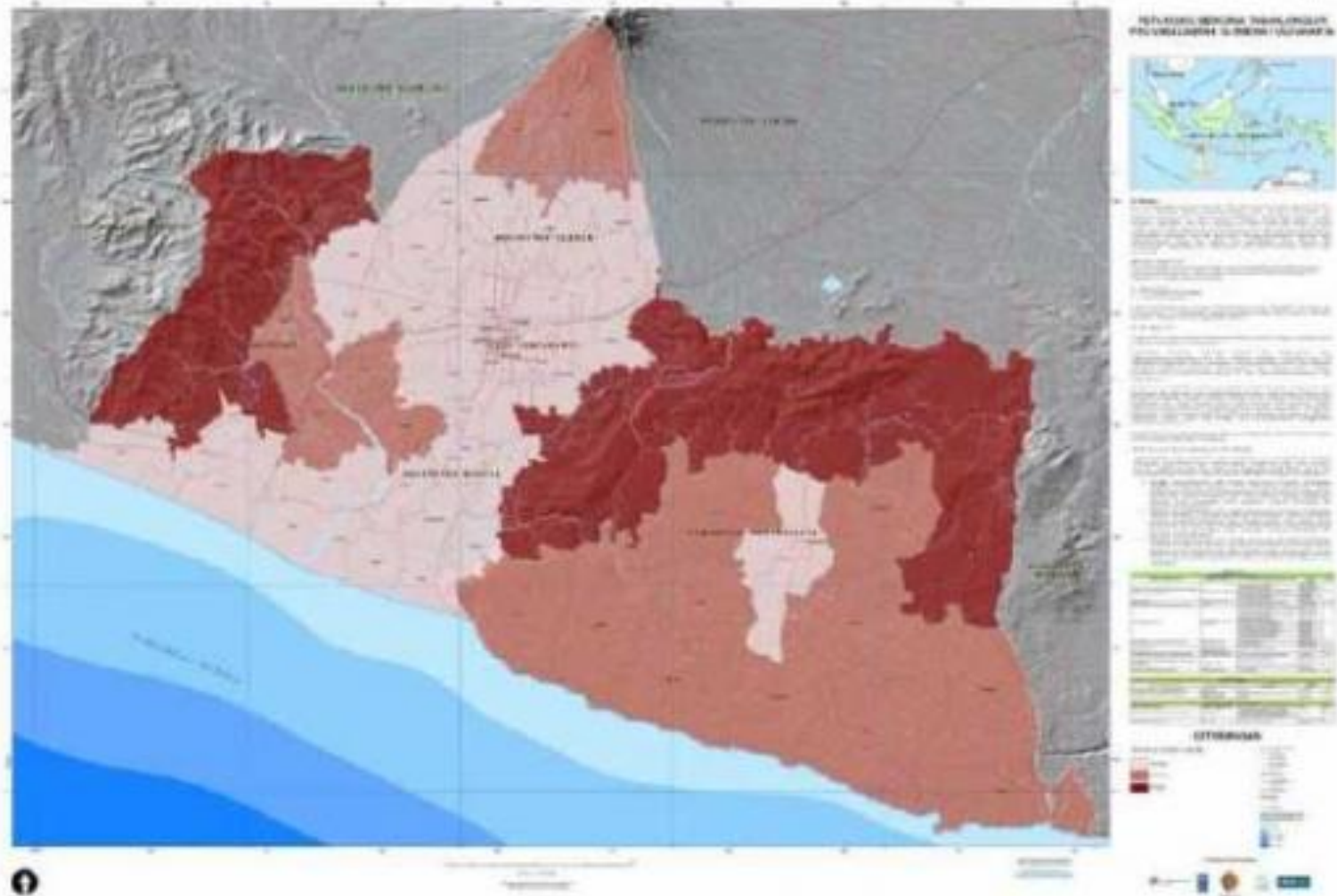


**Lateral spread**

Source: <http://pubs.usgs.gov/fs/2004/3072/fs-2004-3072.html>



# Landslide Risk Map In Yogyakarta



Source: <http://www.pip2bdiy.org/bencana/?isi=peta&pid=127>

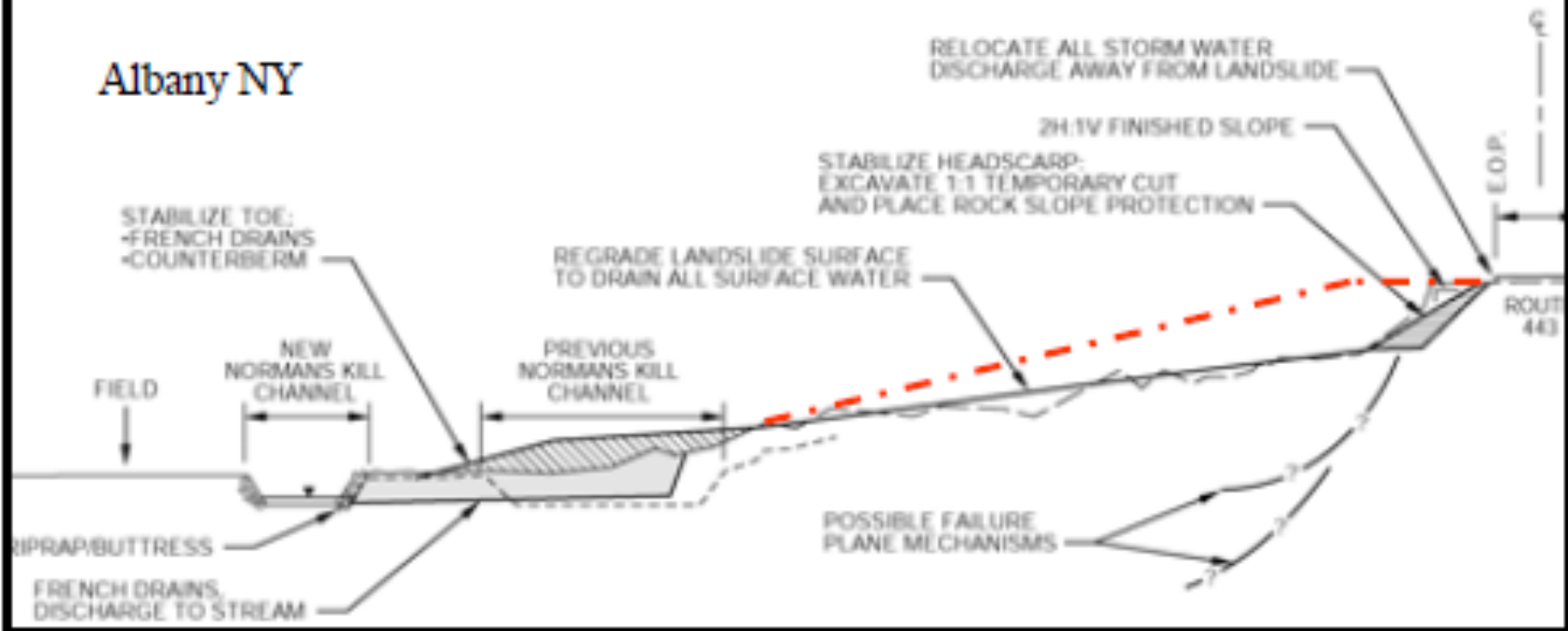


# Geotechnical solutions



# Regrading, Unloading

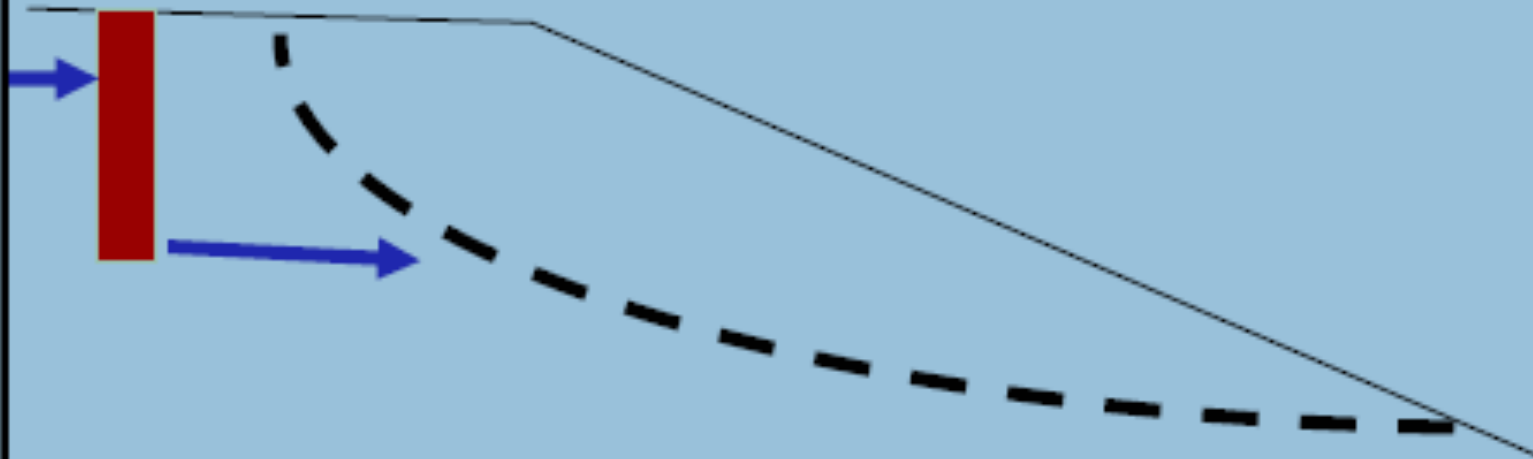
Albany NY



Source: [http://www.landslidetechnology.com/resources/2006-GM-Landslide\\_Mitigation.pdf](http://www.landslidetechnology.com/resources/2006-GM-Landslide_Mitigation.pdf)

# Drainage Trench

- intercept groundwater to reduce seepage





# Our Goals

- To educate and give a better understanding to the community, especially to the children about landslide disaster mitigation and management
- Prepare the community in case of sudden landslide
- Engage youth awareness in disaster management participation

# Damage Caused by Landslides

- Monetary losses (loss of property)
- Fatalities
- Immobility
- Psychological problems
- Health problems
- Child victims because of lack of knowledge

# What can we do?

- Socialize landslide mitigation and disaster management knowledge in an interesting way to the children and community, such as through comics, videos, and elaborate posters.
- Build a community network that consists of students who are aware of disasters and its effects on children, especially on landslides.
- Plant trees and cover crops to reduce the risk of landslides.

# Challenges

- Children tend to be easily distracted and cannot fully focus on the program for long periods of time.
- Children sometimes need special attention and great patience to work with
- Constantly changing interest and mood in children
- The willingness of the community to learn

# Program Details

- Networking: 1<sup>st</sup> – 7<sup>th</sup> October 2013
- Comic: 8<sup>th</sup> – 20<sup>th</sup> October 2013
- Video: 21<sup>st</sup> – 31<sup>st</sup> October 2013
- Socializing: 5<sup>th</sup> – 10<sup>th</sup> November 2013
- Forestation: 15<sup>th</sup> – 18<sup>th</sup> November 2013



# Job Description

- Octa: Is responsible for the reference data on disaster management
- Shanti: Is responsible for making an interesting and ethical concept in socializing and introducing disaster management to the community
- Arka: Is responsible in building and developing the student network for disaster management
- Deni: Is responsible for fund raising.

# Cost Estimation

• Comic (200 exemplars)	400	USD
• Video	90	USD
• Posters (500)	100	USD
• Transportation	100	USD
• Data collecting	100	USD
• <u>Forestation</u>	1000	USD
<b>Estimated Cost</b>	<b>1790</b>	<b>USD</b>

# How will we get the funding?

- Possible Sponsorship
  - Geological Survey of Indonesia
  - Ministry of Forestry
  - National Agency for Disaster Management
- Fund Raising
  - Selling products
- Possible Partnership
  - Indonesia Youth Network Towards Disaster Resilience
  - Greenpeace Jogjakarta

# Indicators of Success

- High number of participants
- Good response from the community
- The community's increase of understanding on landslide mitigation and management

# Contact Details

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