



# NANYANG JUNIOR COLLEGE

## Year 2 Preliminary Examination

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### H1 GEOGRAPHY

**8812/01**

Physical and Human Geography

24 Sept 2014

**3 hours**

Additional Materials:      Answer Paper  
   Insert  
   World Outline Map

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### READ THESE INSTRUCTIONS FIRST

Write your class, index number and name on all the work you hand in.  
Write in dark blue or black pen on both sides of the paper.  
You may use a soft pencil for any diagrams, graphs or rough working.  
Do not use staples, paper clips, highlighters, glue or correction fluid.

#### **Section A**

Answer **all** questions.

#### **Section B**

Answer **one** question.

#### **Section C**

Answer **one** question.

The Insert contains the Photograph and all the Figures referred to in the question paper.  
You should make reference to appropriate examples studied in the field or the classroom,  
even where such examples are not specifically requested by the questions.  
Diagrams and sketch maps should be drawn whenever they serve to illustrate an answer.  
The world outline map may be annotated and handed in with relevant answers.  
You are reminded of the need for good English and clear presentation in your answers.

At the end of the examination, fasten all your work securely together.  
The number of marks is given in brackets [ ] at the end of each question or part question.

## Section A

Answer **all** the questions in this section.  
 Questions 1, 2 and 3 carry 12 marks and Question 4 carries 14 marks.  
 You should allocate your time accordingly.

### Lithospheric Processes, Hazards and Management

- 1 Fig. 1 shows the direction of plate movement affecting Iceland.
- (a) Describe the types of plate boundaries found in Fig. 1. [2]
  - (b) With the aid of an annotated diagram, explain how and why volcanic islands such as Iceland may be found in this location. [6]
  - (c) Account for the presence of the fracture zone indicated in Fig. 1. [4]

### The Globalisation of Economic Activity

- 2 Fig. 2 shows a sample of the survey results on Happiness Scores from 145 nations for 2000 - 2008.
- (a) Describe the relationship between Happiness Score and GNI/Capita for all three categories of countries surveyed. [3]
  - (b) Give a reasoned account for your observation identified in (a). [5]
  - (c) Suggest **two** ways in which governments can help improve the Happiness Scores for Tanzania and Zimbabwe. [4]

### Hydrologic Processes, Hazards and Management

#### 3 EITHER

Fig. 3A and 3B shows the schematic diagrams illustrating two different types of overland flow.

- (a) Identify the type of overland flow for Figs. 3A and 3B respectively. [2]
- (b) Briefly explain the occurrences of the two types of overland flow. [4]
- (c) Write an explanatory account of how you would carry out a survey to show how infiltration rates may vary on a slope such as in Fig. 3B. [6]

## Urban Issues & Challenges

### 3 OR

Fig. 4 shows the ethnic change in London from 2001 to 2011.

- (a) Briefly describe the pattern of ethnic change in London from 2001 to 2011. [2]
- (b) Suggest reasons for the pattern of ethnic change described in (a). [4]
- (c) Explain how you might undertake primary fieldwork to delimit the CBD of London. [6]

## Lithospheric and Hydrologic Processes, Hazards and Management

### 4 EITHER

Fig. 5A shows the average monthly temperature and rainfall for Bangladesh from 1990 to 2009. Fig. 5B shows the extent of the flood prone area in Bangladesh. Fig. 5C shows the houses of people of the low-income group built on and around hill slopes in Moti Jhorna area of Chittagong city, Bangladesh.

- (a) From Fig. 5A, identify the month with the highest rainfall. [1]
- (b) Describe and explain the extent of the flood prone area in Fig. 5B. [5]
- (c) With reference to Fig. 5C, describe **one** type of mass movement that might take place here. [2]
- (d) Explain the factors that could have contributed to the mass movement process named in (c). [6]

## Globalisation of Economic Activity and Urban Issues and Challenges

### 4 OR

Fig. 6 shows the key industry clusters found in London's Central Business District.

- (a) Using Fig. 6, identify the features which show that London is a global city. [4]
- (b) Account for the agglomeration of industry clusters within the Central London Boundary. [6]
- (c) Suggest the possible socio-economic consequences that might be experienced in a global city such as London. [4]

## Section B Physical Geography

Answer **one** question from this section.

### Lithospheric Processes, Hazards and Management

#### 5 EITHER

- (a) With the aid of diagrams, compare the nature and formation of tors and inselbergs. [9]
- (b) Discuss the role of climate and geology in the weathering and formation of limestone landforms. [16]

**OR**

- (a) Earthquakes occur along convergent, divergent and transform plate boundaries. With the aid of diagrams, explain why this is the case. [9]
- (b) With reference to examples, assess the strategies to mitigate and respond to the hazardous effects of earthquakes. [16]

### Hydrologic Processes, Hazards and Management

#### 6 EITHER

- (a) Define the terms: *Drainage density*, *Strahler's stream order* and *bifurcation ratio*. Briefly explain the relationship between them. [9]
- (b) With the aid of annotated diagrams, compare the features associated with meandering and braided channels. Explain the main reasons for the formation of these channel patterns. [16]

**OR**

- (a) Describe and explain the structural methods that might be employed to mitigate river floods. [9]
- (b) With reference to one or more examples, evaluate the effects of human alteration to catchment characteristics on water quantity and quality in drainage basins within a country. [16]

## Section C Human Geography

Answer **one** question from this section.

### The Globalisation of Economic Activity

#### 7 EITHER

- (a) With reference to one manufacturing industry, explain how globalisation has influenced its production methods over time and space. [9]
- (b) Evaluate the role of supranational bodies in the economy of **either** a country **or** regional grouping of countries. [16]

#### OR

- (a) What factors help to explain the trend of off-shoring and the internationalisation of services? [9]
- (b) Comment on the view that TNCs always emerge as “winners” in the host countries in which they operate. [16]

### Urban Issues & Challenges

#### 8 EITHER

- (a) With the use of examples, distinguish between the terms primate city, megacity and global city. [9]
- (b) With reference to examples, discuss the view that primate cities contribute to the economic and urban development of countries. [16]

#### OR

- (a) Compare the nature and extent of housing problems found in cities in both Developed Countries and Less Developed Countries. [9]
- (b) Assess the extent to which attempts to overcome the housing problems in Less Developed Countries (LDCs) have been successful. [16]



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### INSERT

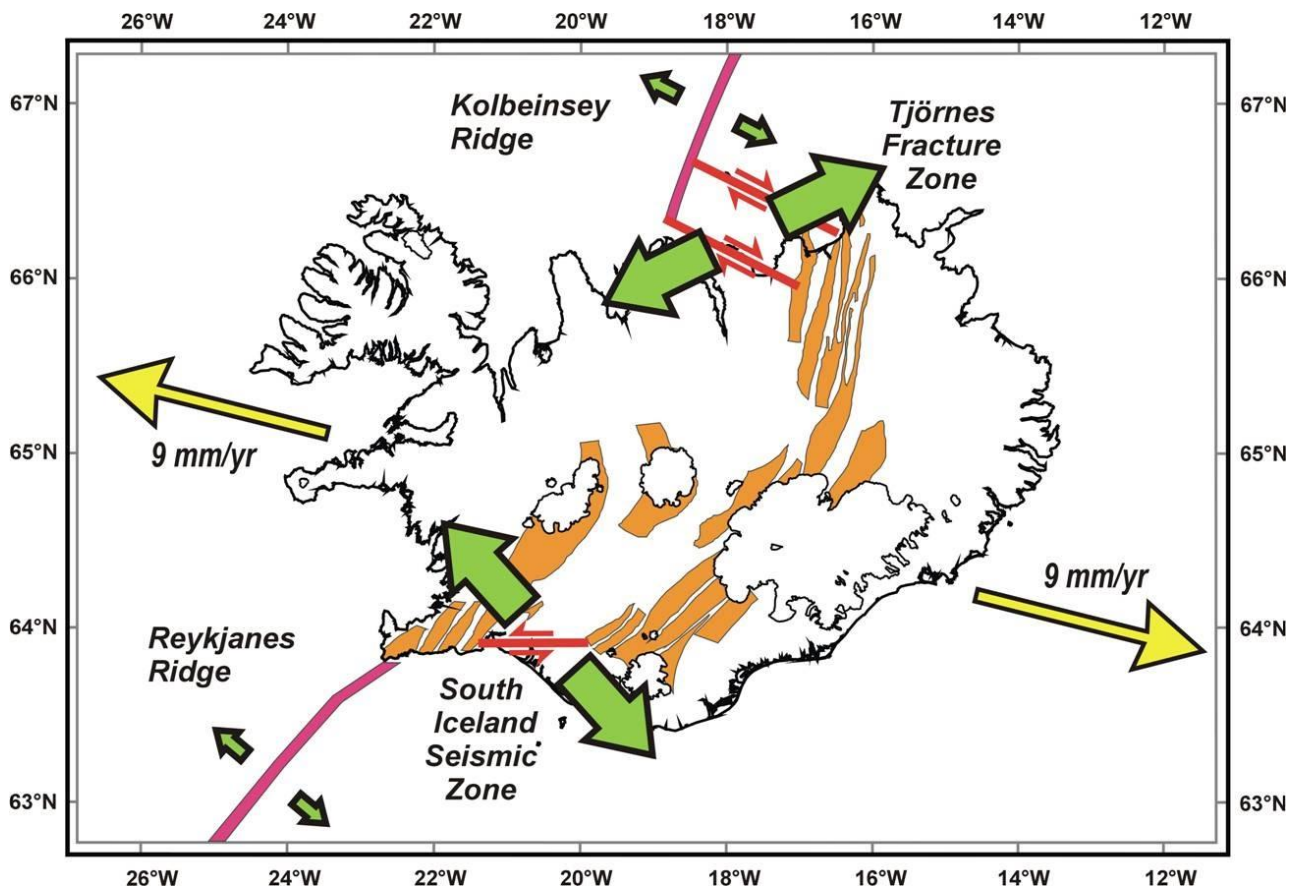
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### READ THESE INSTRUCTIONS FIRST

This INSERT contains the Figures referred to in the questions.

Fig. 1 for Question 1

## Plate movement affecting Iceland



Source: <https://sites.google.com/site/jacquesangelier/StressIceland.jpg>

Fig. 2 for Question 2

## Average happiness in 145 nations for 2000 - 2008

Country	Happiness Score (0–10)	GNI/Capita (US\$), 2007
<b>Happiest Countries</b>		
Iceland	8.5	\$34,060
Denmark	8.4	\$36,740
Columbia	8.1	\$6,640
Switzerland	8.1	\$43,080
Mexico	8.0	\$12,580
<b>Middle Range Countries</b>		
Philippines	6.3	\$3,730
Iran	6.3	\$10,800
India	6.0	\$2,740
China	5.9	\$5,370
South Korea	5.9	\$24,750
<b>Least Happy Countries</b>		
Belarus	4.2	\$10,740
Chad	4.2	\$1,280
Togo	4.1	\$800
Zimbabwe	3.3	No Data
Tanzania	3.2	\$1,200

Sources: Veenhoven, R., *Average happiness in 145 nations 2000–2008*, World Database of Happiness, Rank Report 2009-1a, URL: [worlddatabaseofhappiness.eur.nl](http://worlddatabaseofhappiness.eur.nl), Graham, Carol, 2005. "The Economics of Happiness," *World Economics*, Vol. 6 (3):41–55.

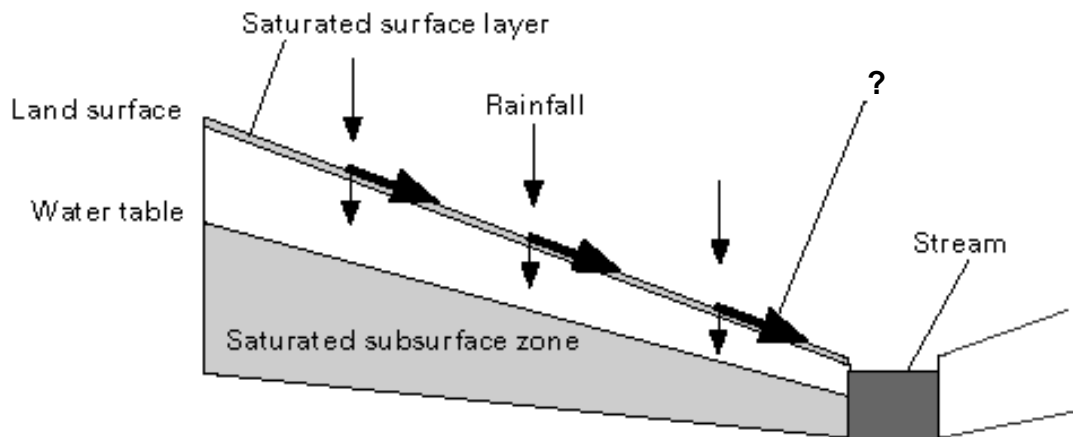
Source: Fellmann et al.:2010:pp. 331



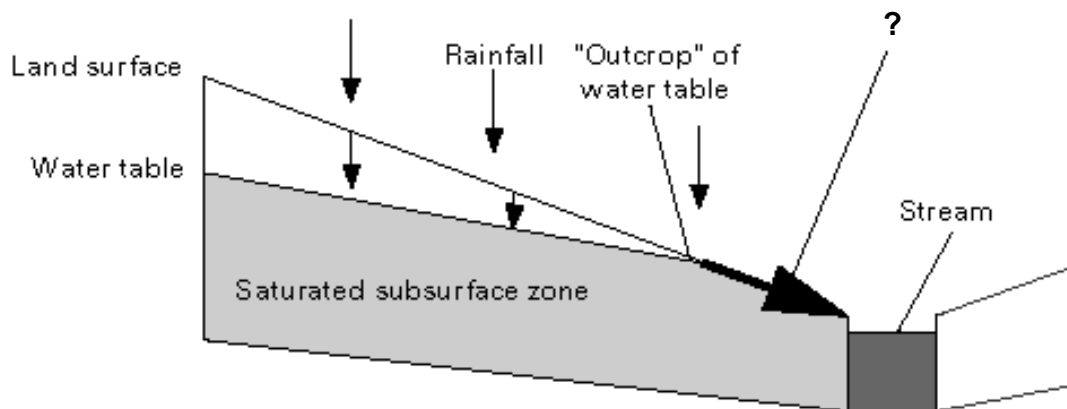
**Fig. 3A and 3B for Question 3 Either**

**Schematic diagrams illustrating 2 different types of overland flow**

**Fig. 3A**

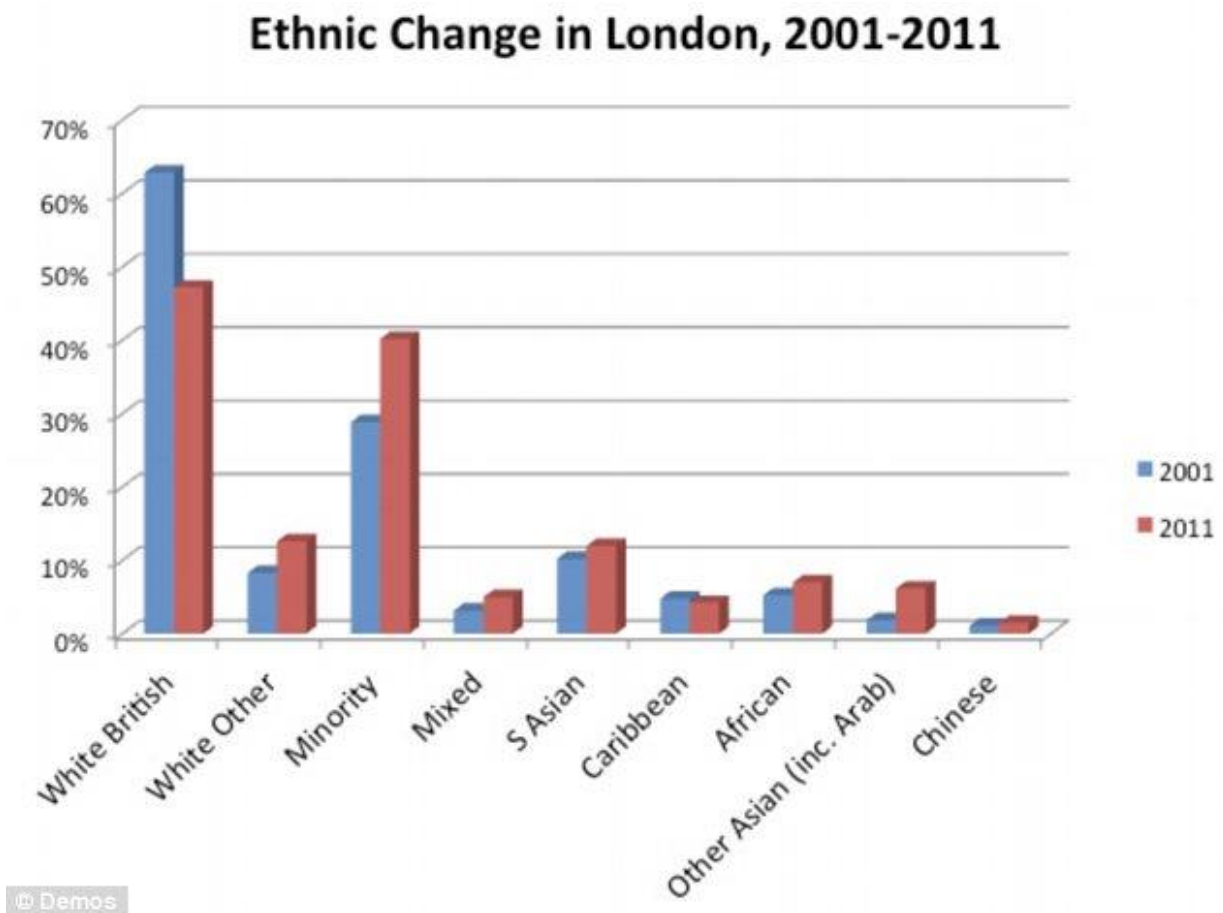


**Fig. 3B**



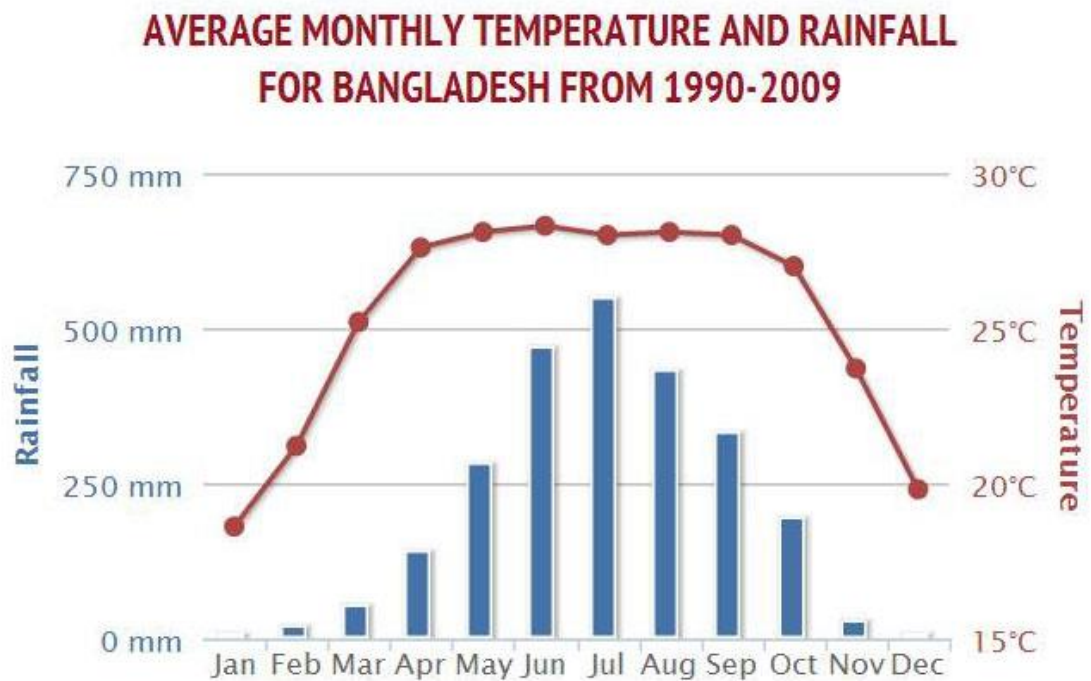
Source: <http://ks.water.usgs.gov/pubs/reports/wrir.99-4089.fig02.gif>

Fig. 4 for Question 3 Or



Source: [http://i.dailymail.co.uk/i/pix/2013/05/06/article-2320002-19A450B1000005DC-715\\_634x472.jpg](http://i.dailymail.co.uk/i/pix/2013/05/06/article-2320002-19A450B1000005DC-715_634x472.jpg)

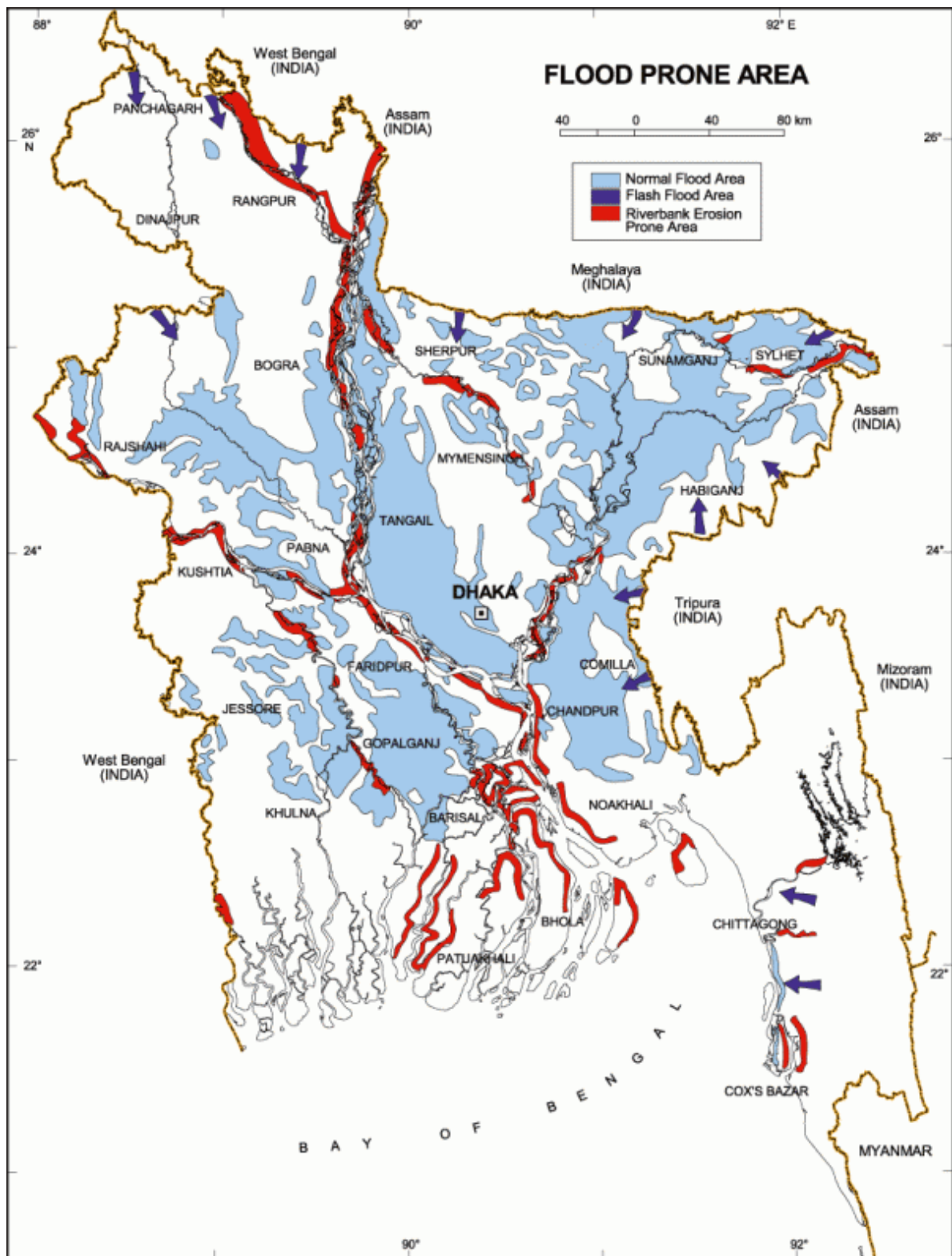
Fig. 5A for Question 4 Either



Source:

[http://sdwebx.worldbank.org/climateportal/index.cfm?page=country\\_historical\\_climate&ThisRegion=Asia&ThisCCCode=BGD](http://sdwebx.worldbank.org/climateportal/index.cfm?page=country_historical_climate&ThisRegion=Asia&ThisCCCode=BGD)

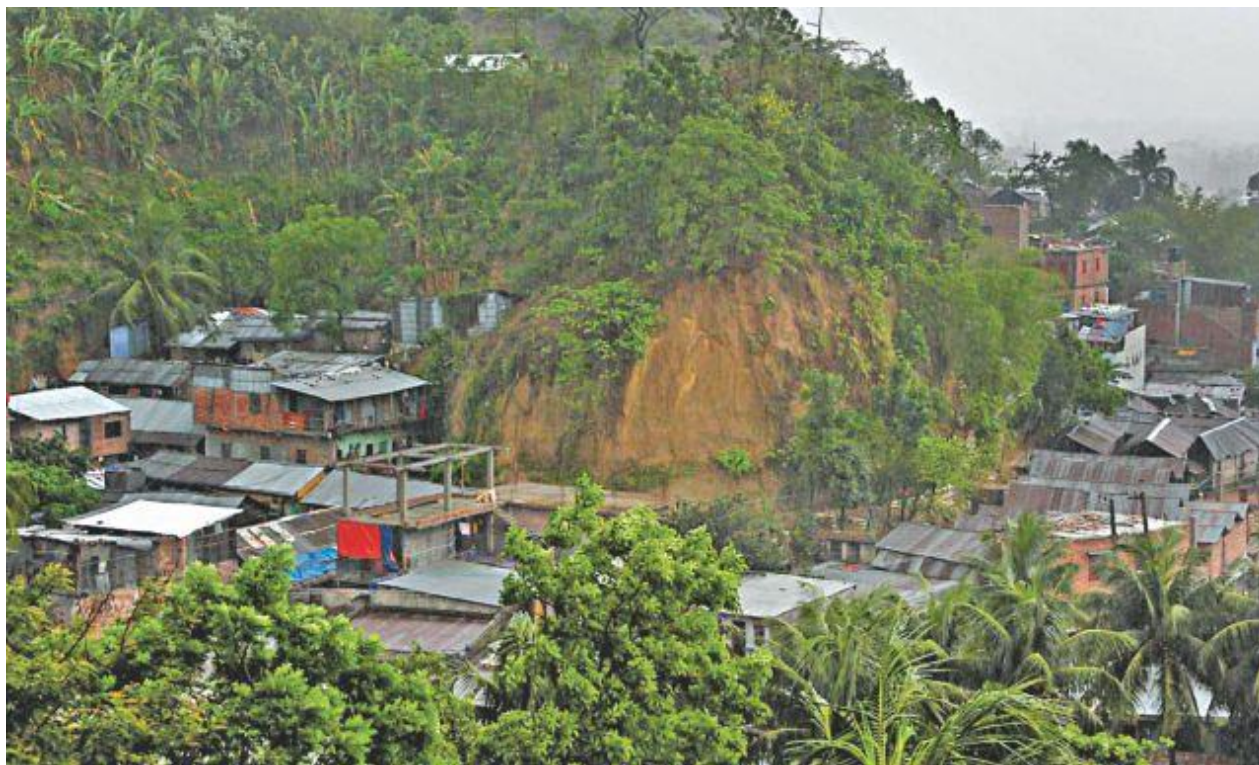
**Fig. 5B for Question 4 Either**  
**Extent of flood prone area in Bangladesh**



Source: <http://thewatchers.adorraeli.com/2011/07/27/bangladesh-floods-displace-thousands/>

**Fig. 5C for Question 4 Either**

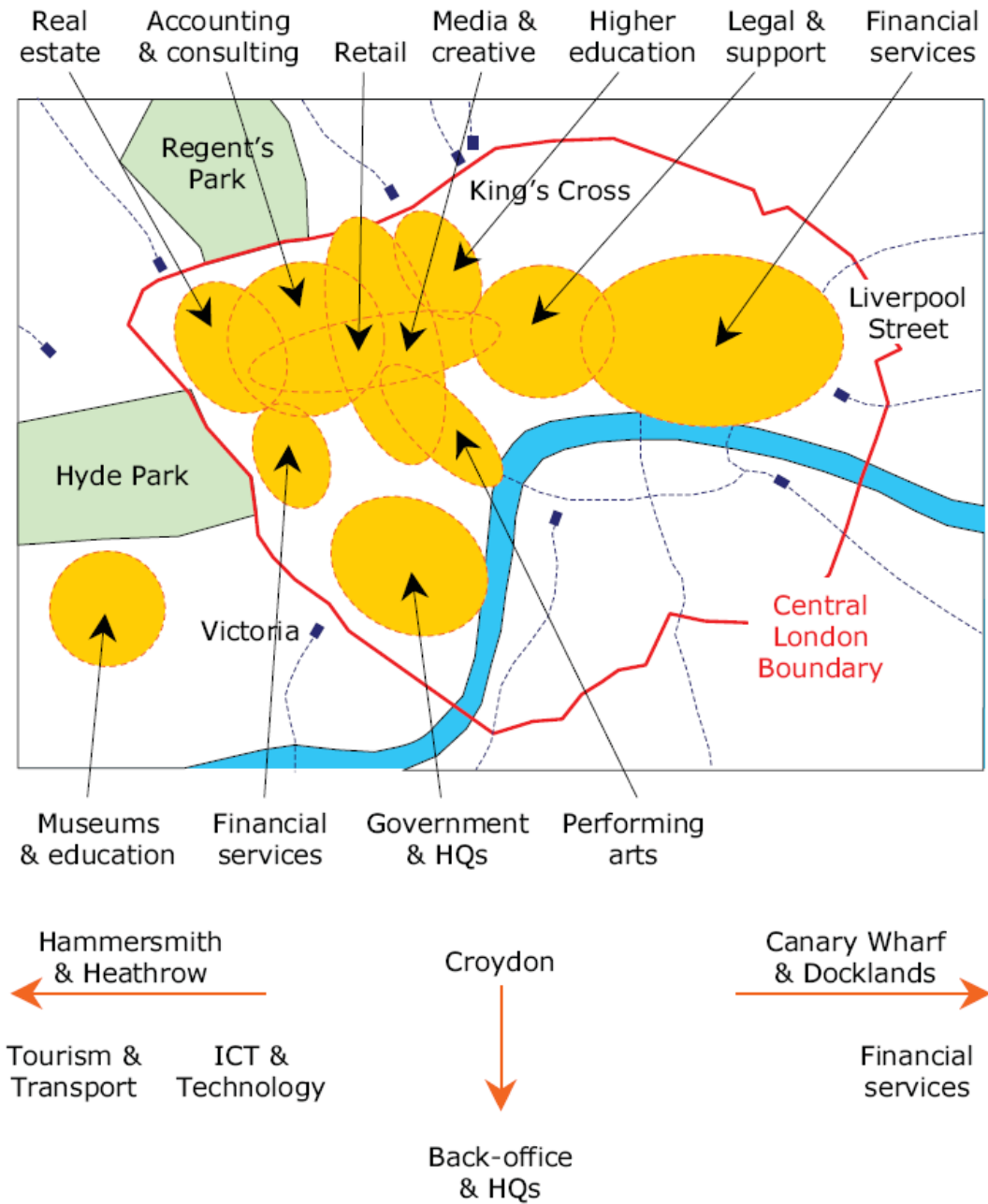
**Houses built on and around hill slopes in Moti Jhorna area of Chittagong city,  
Bangladesh**



Source: Source: <http://archive.thedailystar.net/beta2/news/rains-revive-fear-of-ctg-landslides/>

Fig. 6 for Question 4 Or

### Key industry clusters in London's Central Business District



Source: Cabinet Office, Prime Minister's Strategy Unit, London Project Report (July 2004)