



ADVANCED
General Certificate of Education
January 2010

Geography
Assessment Unit A2 1
assessing
Module 4: Physical Processes and
Human Interactions
[A2G11]
FRIDAY 22 JANUARY, AFTERNOON

**RESOURCE
BOOKLET**

RESOURCE 1A is the OS map insert

RESOURCE 1B

SALMON WEIR, RIVER CORRIB, GALWAY (GRID REFERENCE: G11)



Source: Principal Examiner

RESOURCE 1C

FORMER WATER POWERED MILL REDEVELOPED FOR RESIDENTIAL USE,
RIVER CORRIB, GALWAY (GRID REFERENCE: H11)



Source: Principal Examiner

RESOURCE 2A

SEATON CLIFFS, NORTH OF ARBROATH, SCOTLAND



Source: Principal Examiner

RESOURCE 2B

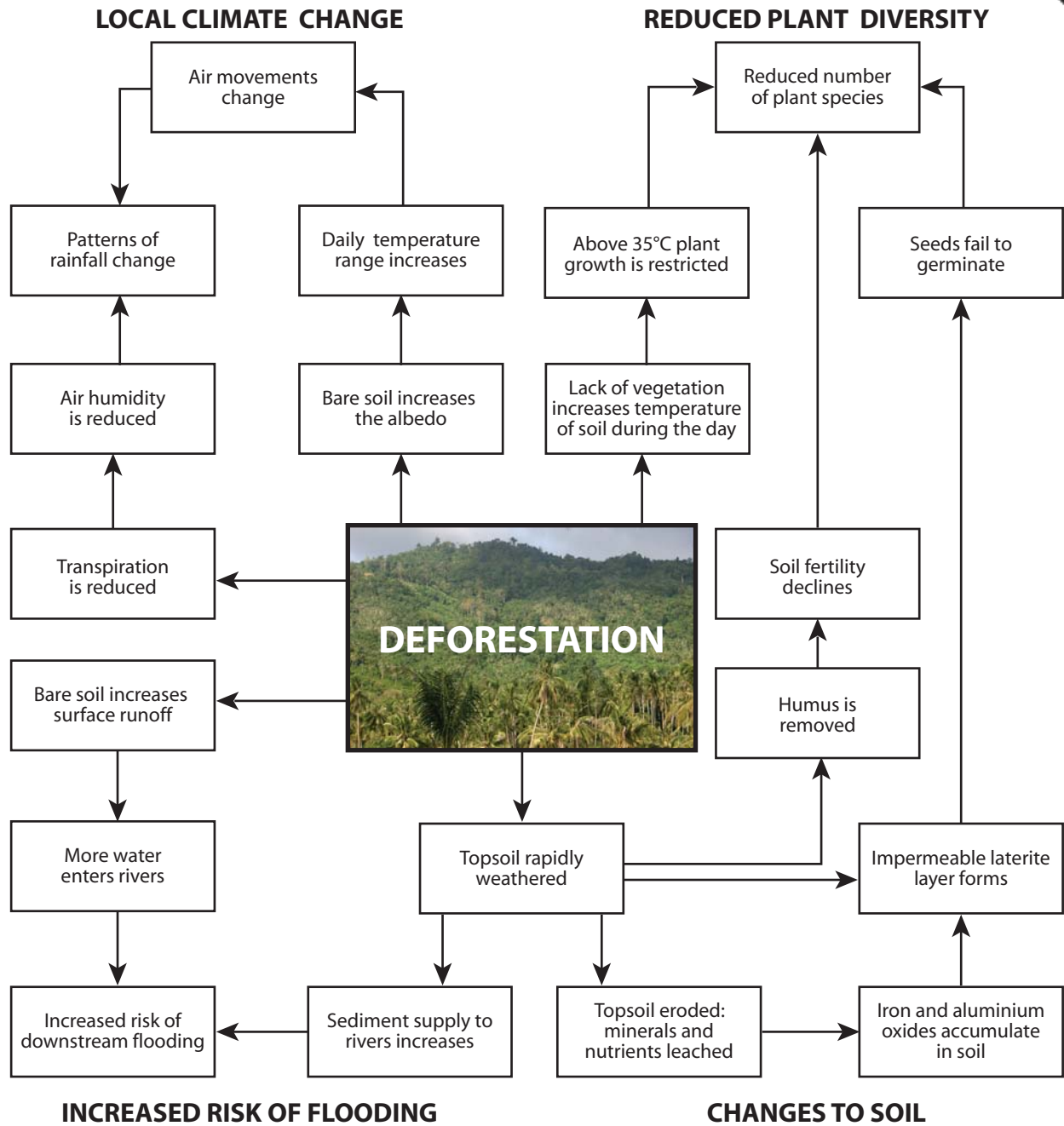
EAST STRAND SAND DUNE SYSTEM, PORTRUSH, COUNTY ANTRIM



Source: Principal Examiner

RESOURCE 3

THE ENVIRONMENTAL IMPACTS OF LARGE-SCALE DEFORESTATION OF TROPICAL FORESTS



Adapted from: © *Ecosystems and Human Activity* by RSPB edited by Judith Woodfield, published by Collins Educational, 1994, ISBN 0003266443. Reproduced by permission of Harper Collins Ltd, publishers

RESOURCE 4

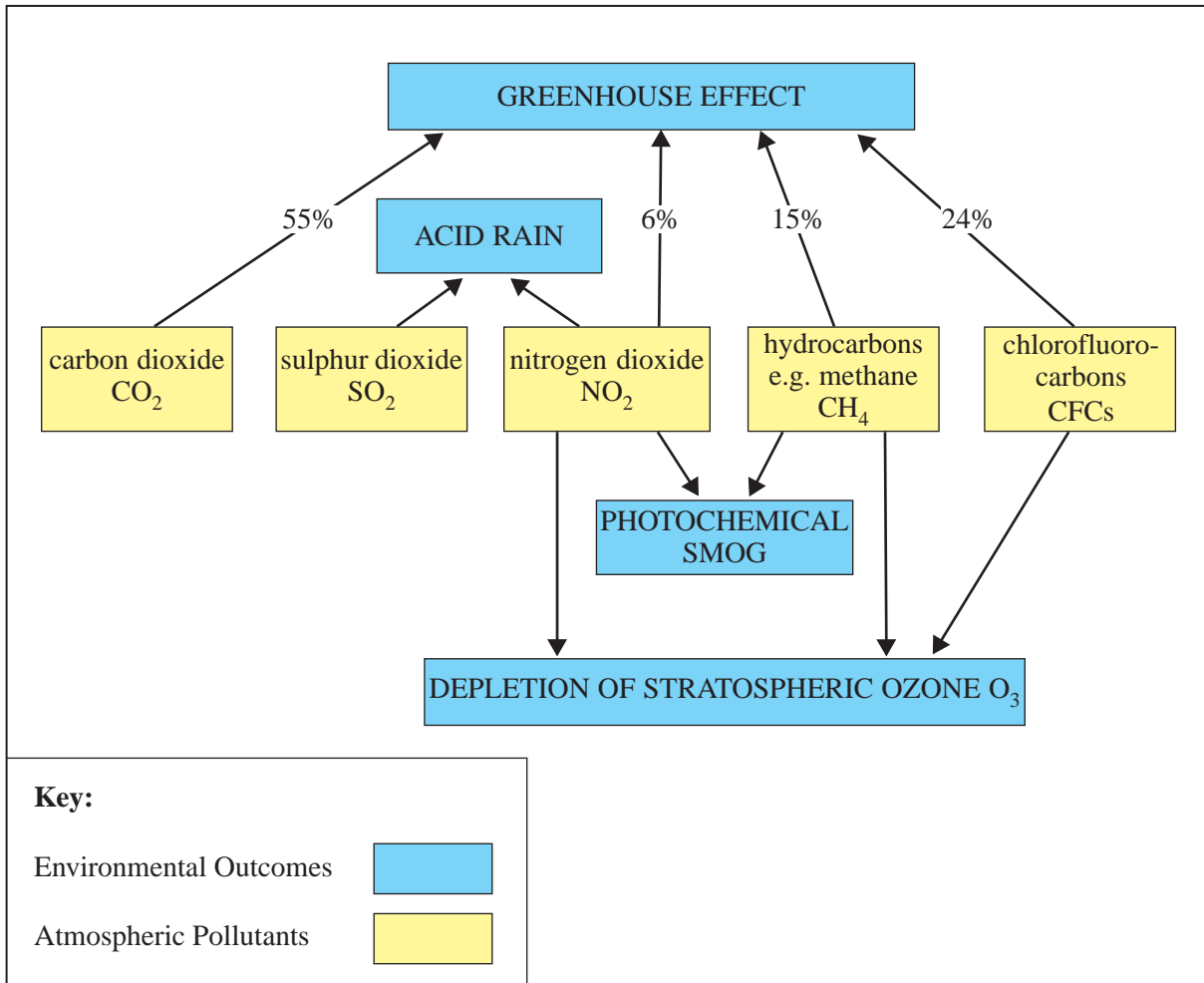
CHANGES IN VEGETATION AND SOIL CHARACTERISTICS FOLLOWING ABANDONMENT OF A SLASH AND BURN PLOT

Years from Abandonment	Trees Number (per Ha)	Trees Mean Height (m)	Plant Species		Soil Organic matter (%)	Soil Nitrogen (%)
			Diversity Index*	Number of tree species		
1	56	1.3	0.37	2	2.5	0.19
3	512	2.5	0.43	7	2.2	0.19
7	2270	4.7	0.71	15	3.1	0.31
10	2670	5.8	0.71	19	4.2	0.29
Uncleared tropical forest (for comparison)	2260	10.4	0.71	25	5.4	0.49

***Diversity Index** – the higher the value, the greater the range of plant species in the ecosystem.

RESOURCE 5

THE CONTRIBUTION OF VARIOUS ATMOSPHERIC POLLUTANTS TO THE GREENHOUSE EFFECT, ACID RAIN, PHOTOCHEMICAL SMOG AND THE DEPLETION OF STRATOSPHERIC OZONE



Source: adapted from Ecology: Principles and Applications, 2nd Edition, Chapman and Reiss, Cambridge University Press 2003

RESOURCE 6

NORTHERN IRELAND WASTE MANAGEMENT STRATEGY 2006–2020: KEY POLICIES

Key Policies

1

Waste Prevention

The aim is to stabilise waste generation in order to minimise impact on the environment, improve resource efficiency and reduce the cost of waste management in Northern Ireland through:

- government leadership;
- site waste management plans;
- financial incentives to reduce waste;
- preventing waste in the business sector;
- preventing waste at home.

2

Recycling and Recovery

The aim is to increase resource efficiency through the promotion of recycling and recovery of waste, based on a life cycle approach which balances consumption and production by:

- enabling and encouraging participation in recycling, composting and recovery;
- stimulating markets through sustainable purchasing;
- developing viable reprocessing capacity and end markets for recycled and recovered materials;
- implementing the producer responsibility policy;
- setting targets for household waste recycling and composting.

3

Waste Planning

The aim is to support the development of an integrated network of facilities for the recycling, recovery and disposal of waste within Northern Ireland and to ensure that these facilities are planned, designed and operated to provide a high level of protection for the environment and for public health by:

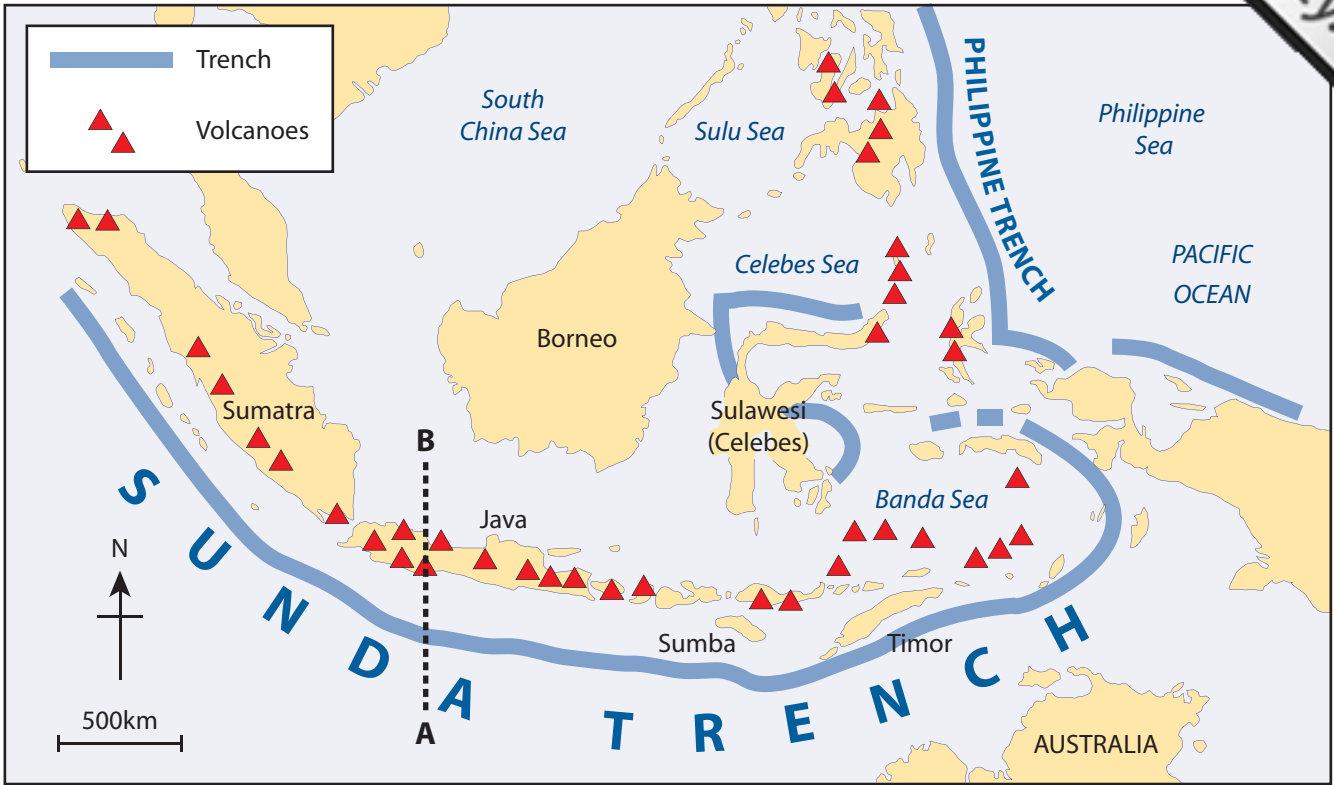
- planning for the management of waste in Northern Ireland
- procuring the right infrastructure

© Crown Copyright adapted from: www.doeni.gov.uk/epd

RESOURCE 7

MAP SHOWING FEATURES ASSOCIATED WITH TECTONIC ACTIVITY IN IN

StudentBounty.com



© CCEA

RESOURCE 8

THE INDIAN SUMMER MONSOON OF 2007

Every year during the full moon in June, the people of the small southern village of Puchaldini appeal to the gods to bless them with a healthy monsoon starting in late June. But this year the annual monsoon festival was different. A week before, unusually heavy rains submerged their fields, destroying crops, drowning cattle and goats and killing 10 people, part of a death toll of 160 across southern and western India in less than four days. The deluge turned this village into a living example of India's chronic vulnerability to the rains, which come too heavily in some years and not at all in others, destroying lives and livelihoods and sending ripples through the entire economy.

Even as India bounds ahead in development, two out of three citizens live in the countryside and still largely subsist on rain-fed agriculture, nearly everything – life, prices, politics – remains at the mercy of the rains. The monsoon death toll so far this year has surpassed 500 across India.

The resulting calamities can be attributed as much to poor state planning as to nature. India is not equipped to harness and store its rains, and lacks the adequate irrigation network that could liberate its farmers from the variability of the monsoon.

In Puchaldini, only one third of the land is irrigated so most of the farmers rely solely on rainfall to water their fields. When the monsoon is poor, men and women migrate to work in nearby cities. Those who still farm, plough and sow their fields each year just before the late June rains. This year, they watched with satisfaction as the young green shoots emerged from the ground. Then their hopes were dashed on June 23rd as 110 mm of rain fell, equal to the normal total for July. In early June, farmer S. Kanappa had sown his two hectares with rice. By June 25th the water in his fields nearly came up to his knees, ruining his crop. He said he would sow another set of seeds and pray again for adequate rain during the remainder of the monsoon.

The rains on June 23rd did bring delight to the more fortunate farmers in Puchaldini, whose lands are irrigated from a simple network of ponds, which store rainwater, and canals that channel it slowly into the fields. This year, said B. Khadiarayya with a broad smile, there would be enough water for rice to be sown across the irrigated belt.

From the New York Times © 6 July 2007 The New York Times. All rights reserved. Used by permission and protected by the copyright laws of the United States. The printing, copying, redistribution or transmission of the Material without express written permission is prohibited.

Permission to reproduce all copyright material has been applied for .
In some cases, efforts to contact copyright holders may have been unsuccessful and CCEA
will be happy to rectify any omissions of acknowledgement in future if notified.