



## Hinchingsbrooke School Science Department

### KS3 Homework Task

#### Interdependence HW1 – Nature's Economy

Date set:

Date Due in:

On the following page is information related to the task. You may need to do additional research to achieve the maximum level possible.

- Answer all questions, if you use PowerPoint please print off and stick in your book
- Fill in your details below

Name:	Form:
Teacher:	Science Set:

Feedback from teacher:

Student comment:

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## Nature's economy

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We are used to thinking about the economic cost of things that we do, but scientists are warning us that we also need to think about the environmental cost. The Living Planet Report says that more than three-quarters of the world's population are living in countries that are 'ecological debtors'. This means they are consuming natural resources faster than the world can renew them. The UK's ecological footprint is the 15th largest in the world, as big as 33 African countries put together, which means we are using more than twice our 'fair share' of the world's natural resources.

The director of the World Wide Fund for Nature (WWF) has said that if we continue at our present rate then by mid-2030 we will need the equivalent of two planets to support our lifestyles. The Living Planet Index, which tries to measure the health of the world's biodiversity by tracking changes in populations of mammals, fish, amphibians, reptiles and birds, shows an average decrease of 30% since 1970, with a decrease of 51% in the tropics. Many researchers claim we are in the middle of a mass extinction in which species are disappearing at a faster rate than during the extinction of the dinosaurs.

A study that looks at the cost of the services that forests such as absorbing carbon dioxide and supplying clean water, that the loss of forests caused by deforestation is costing the between \$2 trillion and \$5 trillion each year; that's approximately 7% of the world's GDP. The study is now second phase, which will look at the costs of damage to other apart from forests. This phase should be completed by 2010. of the study says he is hoping that the study will help see the consequences of the policies they make about the environment. Some people have criticised a study that the value of nature only by the services it provides for humans, but others say that decades of arguing that nature has an intrinsic worth haven't worked, so we must try something else.



We need to look after our rainforests  
(NASA Earth Observatory)

perform,  
suggests  
world

entering its  
systems,  
The leader  
politicians

measures

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### QUESTIONS

What is meant by 'ecological debtors'?

How much of our 'fair share' of the world's natural resources do we use in the UK?

Suggest some reasons why loss of biodiversity may harm humans.

Explain in your own words what you think is meant by deforestation 'costing the world ...'

Find more information about the Living Planet Report, and report back on what you can find out about the Living Planet Index and the Ecological Footprint.

### Debate

In groups, discuss whether or not you think nature has an intrinsic value. Try to explain why you believe what you believe.