Rich People, Poor People, and Environmental Concern

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Number of poor in poverty, 1981-2008

- Between $1.25 and $2.00 a day
- Between $1 and $1.25 a day
- $1.00 a day or below

Source: World Bank
Poverty rates for the developing world, 1981 - 2008

Headcount index of poverty (percent below poverty line)

$2 per day
$2 per day (less China)
$1.25 per day
$1.25 per day (less China)

Source: World Bank
Emissions of air pollutants in the UK, 1970-2011 (Source: DEFRA)
Countries with large net changes in forest area 2000–2005

- Red: >0.50% decrease per year
- Green: >0.50% increase per year
- Gray: Change rate between -0.50 and 0.50% per year

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Lead (Pb) in blood in children, 3–12 years of age, in relation to Pb in petrol, tonnes per year

Source: European Environment Agency
Environment #1: A Luxury Good?

- maybe “the environment” gets worse... and then better?
- maybe people start caring about “the environment” when they can afford to?

![Graph showing the relationship between Economic Development and Environmental Degradation.](Image)
Questions 1-2
“Willingness To Pay (WTP)”

• 242,131 people answered surveys in 78 countries (1990-2008):

1. “I would agree to an increase in taxes if the extra money were used to prevent environmental pollution.”

2. “I would give part of my income if I were certain that the money would be used to prevent environmental pollution.”
Questions 3-5
“EnvLoc”

“I am going to read out a list of environmental problems facing many communities. Please tell me how serious you consider each one to be here in your own community. Is it very serious, somewhat serious, not very serious or not serious at all?”

3. “Poor water quality.”
4. “Poor air quality.”
5. “Poor sewage and sanitation.”
Questions 6-8
“EnvGlo”

“Now let’s consider environmental problems in the world as a whole. Please, tell me how serious you consider each of the following to be for the world as a whole. Is it very serious, somewhat serious, not very serious or not serious at all?”

6. “Global warming or the greenhouse effect.”
7. “Loss of plant or animal species or biodiversity.”
8. “Pollution of rivers, lakes and oceans.”
Figure 1: WTP versus GDP/capita and Income (N=242,131)
Figure 2: EnvLoc versus GDP/capita and Income (N=61,279)
Figure 3: EnvGlo versus GDP/capita and Income (N=56,526)
Implications

1. There’s no reason to think people will care more about the environment as societies get richer.

2. But people in poor countries *already* care about the environment (they don’t see it as a luxury for the future).

3. Most people, fundamentally, say they care.

But...
Global Greenhouse Gas Emissions

From: http://www.epa.gov/climatechange/ghgemissions/global.html
Species/Biodiversity Loss

“The average abundance of species is declining – 40% loss between 1970 and 2000. Species present in rivers, lakes and marshlands have declined by 50%. Declines are evident in amphibians, African mammals, birds in agricultural lands, corals and commonly harvested fish species.

... The intensification of fishing has led to a decline of large fish. In the North Atlantic, their numbers have declined by 66% in the last 50 years.”

(http://www.cbd.int/gbo2/main-messages.shtml)
So...

Why are we failing to solve serious environmental problems, given that we’ve solved (some) other problems, and that (most) people, rich or poor, in principle do care?

Some answers:
> we need to fundamentally change (revolutionise) our society
> we need “de-growth”
> technology will save us
> we just all need to “do our bit”
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Better answers:
> we already know how to solve these problems
> but most people think about “the environment” in the wrong way
> our lifestyles will have to change, but not massively
> technology will help, but without changing anything else we won't get the quality or quantity of technology we need
> governments aren't feeling enough pressure to act, but only government action can save us
Four Questions

1. Why do we pollute the environment?
2. Why do we pollute the environment too much?
3. How can we stop polluting the environment too much?
4. What would a world without too much pollution look like?
Q1: Why do we pollute the environment?
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• because pollution is a side-effect of activities we engage in to make our lives better

• examples:
  o clothing -> wastes from chemical dyes
  o food -> conversion of forests to fields
  o warmth -> radioactive wastes from nuclear plants
  o transport -> greenhouse gas emissions from fuels
  o etc.
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- examples:
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  - etc.

-> so we pollute inevitably... to some extent
Q1: Why do we pollute the environment?

- getting rid of all pollution would have massive costs
  - human life would be miserable
Q1: Why do we pollute the environment?

• getting rid of all pollution would have massive costs
  o human life would be miserable
  o some pollution is worth it

• so the problem is not that we have some pollution
• the problem is that we have too much pollution
  -> call this “over-pollution”
Q2: Why do we pollute the environment too much?

• because each of us decides whether to pollute without taking into account the costs of our pollution to everyone else
  o we get all the benefits, but pay only part of the price
  o so we choose to engage in some activities that are actually more costly than beneficial

-> the "over-pollution"

• for society as a whole (including future generations), the total costs outweigh the total benefits
  -> but not for the person doing the polluting
Q2: Why do we pollute the environment too much?

• by implication, pollution is an injustice
  o polluters force others to pay for something from which they get no benefit
• so think of pollution as a kind of stealing
Q2: Why do we pollute the environment too much?

• in this sense, we are all thieves, all the time
  o this does not make us bad people

• just because we do it to each other doesn't stop it from being stealing

  -> we pollute the environment too much (we over-pollute) because individually we don’t have to pay for it
Q3: How can we stop polluting the environment too much?
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- three possibilities:
  1. ban pollution
     -> would eliminate over-pollution... but also pollution that is worth the cost
  2. ask individuals to make individual sacrifices (to stop stealing)
     -> feasible?
  3. stop the stealing
Q3: How can we stop polluting the environment too much?

- how can we stop the stealing?
  - by making the cost of pollution to the polluter equal to the cost of pollution to the whole of society
  - that is, by correcting the price of polluting

-> make sure that the polluter pays, not other people (since it’s not stealing... if you pay for it)
Q4: What would a world without too much pollution look like?
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• people would still be free to pollute
  -> it would just be “expensive”
• if a polluting activity were really worth it, someone could still choose to do it

• two kinds of tools would correct the price of polluting:
  1. pollution taxes
  2. pollution permits
Q4: What would a world without too much pollution look like?

• Q: who could use these tools?
  -> the only possibility: the government

• Q: would everything be expensive?
  -> polluting activities would be
  -> but revenues from the taxes/permits would allow the government to lower the price of other things (including maybe other taxes)
  -> so living standards would be... much the same
Q4: What would a world without too much pollution look like?

- Q: could this work (for greenhouse gas emissions)?
  
  -> let’s look at the record on sulphur (acid rain)…
Conclusions
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• only the government has the power to stop stealing, so the solution to environmental problems is getting the government to act
  -> not easy (requires pressure from voters, activists)

• what you should say to politicians...

• another thing you can do: educate people
  o Q: is environmental protection about sacrificing our lives for the sake of nature?
  o A: no, it’s about stopping us stealing from each other, using the right tools (taxes/permits)
    -> not an issue of being rich or poor
Conclusions

• all this applies to climate change, but also other kinds of pollution as well

• places with carbon taxes and/or permit schemes:
  o British Columbia, Canada (C$30/tonne tax)
  o California, USA (permits scheme)
  o Australia (first a A$23/tonne tax, then permits)
  o European Union Emissions Trading Scheme