

1 While ocean plastic gets a lot of media coverage, acidification is arguably a bigger killer.

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2 Marine life is possible thanks to a delicate balance of temperature and acidity.

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3 Our oceans act like a sponge, absorbing CO<sub>2</sub> from the air.

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4 That CO<sub>2</sub> then mixes with water to form carbonic acid.

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5 The more CO<sub>2</sub> we emit, the more acidic the ocean becomes — 30% more, in fact, over the last 150 years.

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6 The result is an upset in the delicate balance of coral and other marine ecosystems, which can't survive.

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7 Dead zones, where no marine life can exist because of rising acidity or a lack of oxygen, are becoming more prevalent, and we're facing a loss of all of the world's coral reefs over the next few decades.

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- 1 Global climate change can be defined as underprovision of the public good of climate stability or excessive use of the common pool resource of waste absorption capacity.
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- 2 At least part of the solution will undoubtedly involve the new carbon-neutral technologies needed to solve the peak oil problem.
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- 3 From the perspective of climate change, though, there is no free-rider problem in the deployment of these technologies.
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- 4 In the absence of climate change, one institution has nothing to gain from others using alternatives to fossil fuels. In the presence of climate change, such technologies become additive:
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- 5 the more people use them, even without paying, the better off the inventor becomes, since she, too, benefits from a more stable climate.
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- 6 The countries best able to fund research into carbon-neutral energy sources are precisely those countries that have made the most significant contributions to climate change.
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- 7 This means that cooperative provision of such technologies by those countries would promote ecological sustainability, just distribution, and allocative efficiency.
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- 8 Private, competitive provision would undermine all of these goals.
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- 1 I once went shopping with a typical auto-pilot shopper, a busy single professional who needed to shop as quickly as possible and not spend a lot of time shopping.
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- 2 We met at the grocery store with identical lists and set off to compare results.
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- 3 At the end of our trip, having bought the same items, she had spent \$250 and I had spent just \$75!
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- 4 The difference was our shopping strategies.
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- 5 I had done my homework and had reviewed the store's sales circular ahead of time to learn which items were on sale.
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- 6 Additionally, my well-organized coupons allowed me to match sale items with coupons, to lower my bill even more.
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- 7 My auto-pilot friend opted mostly for her favorite name brands and grabbed whatever items usually stocked her pantry.
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- 8 She hadn't taken the time to scan the sales flier or clip coupons, and she bought only items she was familiar with, since she generally bought the same list week after week.
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9 All those decisions ended up costing her money.

10 Planning ahead may seem time-consuming, but you get real savings as your reward.

- 1 When a pest is not native to the region where it is damaging crops, scientists may consider introducing a natural enemy (a predator, parasite, or pathogen) of the pest from its native range, expecting that the enemy will attack it.

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- 2 Alternatively, scientists may consider importing a biocontrol agent from abroad that the pest has never encountered, reasoning that the pest has not evolved ways to avoid the biocontrol agent.

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- 3 In either case, this involves introducing an animal or microbe from a foreign ecosystem into a new ecological context.

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- 4 This is risky, because no one can know for certain what effects the biocontrol agent might have.

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- 5 In some cases biocontrol agents have turned invasive and become pests themselves.

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- 6 When this happens, biocontrol organisms are more difficult to manage than chemical controls, because they cannot be "turned off" once they are set loose.

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