

Teens tackle pollution in their communities

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YOUNG "ENVIRONMENTOR": Barbara Brown from Victoria, Texas, realized when she was 11 that her community was dumping used motor oil on the ground, contaminating it's water. So she helped set up an oil-recycling program, collecting 60,000 gallons so far.

I bet you don't recycle your family's dryer lint. You probably don't reduce waste by reusing tuna cans as cookie cutters, either.

That's okay. The earth is packed full of plenty of areas that could stand a little improving. Take a look in your community — perhaps the pollution needs patrolling, or the sea turtles need saving. There's bound to be at least one environmental

cause you find interesting and worthwhile.

To celebrate this year's Earth Day, we thought you might enjoy reading about some inspiring young environmentalists. Not only did they realize the powerful effects of a little perseverance and passion, but they also proved to the government, businesses, and even their own critics that kids must be seen *and* heard.

Barbara: Putting used oil in its place

When Barbara Brown of Victoria, Texas, was 11, her friend Kate noticed her father pouring used motor oil on a fencepost to kill weeds.

"The weeds did die, but we wanted to know: What happened to the oil?" says Barbara, who is now 17.

What Barbara and her friends Kate Klinkerman and Lacy Jones found out was that the toxic oil seeped into the soil - and eventually into the water supply. "What we were doing on our land was possibly contaminating our own water," Barbara says.

So the trio set out to clean up their own backyards - literally. "We knew that we were just sixth-graders, but that didn't stop us from doing what we believe is right," Barbara says.

In 1998, they formed the program Don't Be Crude, and began educating their community about the dangers of using motor fluids as weed and insect killers. (This is a common practice in rural areas like Victoria, especially since many folks live far from car-maintenance locations, which recycle used oil.)



DIESEL WARRIOR: Last year, Amir Nadav (l.) helped pass a school bus anti-idling law in Minnesota. Now he empowers others to do the same.

They also got support from the government and businesses to set up five do-it-yourself recycling units in Victoria County.

Today, Don't Be Crude has 18 units in seven counties - and protects thousands of acres of groundwater from contamination through improper fluid disposal, says Barbara.

In addition, the girls speak to audiences across the nation (some as large as 1,500 people) to encourage young people to get involved in protecting the earth.

Sometimes, Barbara says, that involves getting rid of stereotypes.

"In Texas, you're labeled a tree hugger if you do something to help the environment - but I think that's just because people aren't very educated about the environment," she says.

The team also tries to teach others that there's much more to protecting the planet than recycling cans. "People usually know about recycling," she says. "But they often simply don't realize how much *more* they could be doing."

Amir: Reducing school-bus pollution

In December 2001, Amir Nadav was in his junior year of high school when he decided he wanted to do something more to help the environment. So he wandered into a local Sierra Club meeting. There, they were discussing new reports on the harmful effects of school-bus idling.

"I thought, this is really cool. I ride a school bus, I have friends who ride school buses, so this is an issue that clearly affects me," says the Eagan, Minn., teen.

School buses emit diesel exhaust, and when a driver stops the bus but leaves the engine on, it creates a lot of pollution that could be easily avoided, he says.

So Amir and two friends wrote a petition calling for reduced idling and increased maintenance inspections (a well-maintained vehicle pollutes less). Then they told fellow classmates about their petition - and to their surprise, they got 500 signatures on the first day.

"I was a really shy person, and I didn't have the guts to just go up and approach people," Amir says. "But I felt really empowered because it was something I really believed in."

Buoyed by their success, the petition writers and several Sierra Club members drafted a state bill calling for minimized idling of school buses.

Then they testified before the state legislature. When they ran into opposition, Amir and his co-leaders organized a rally of 150 students on the steps of the State Capitol.



RECYCLED ROAD: Canadian Gina Gallant (r.) came up with the idea of paving roads with plastic waste. A test (top) is in the works.

It was a success. They gained not only media attention, but key support from the Senate majority leader. He had walked down to check out the rally, and was impressed with the students' knowledge of the topic, along with the 1,000 signatures on the petition.

Last May, the bill finally became a law.

"If you had told me a few days before I attended that Sierra Club meeting what it would amount to, I would've laughed. It's unbelievable what can happen," he says.

Another lesson Amir learned is the importance of researching a cause he felt strongly about. "It's easy to go out and say, 'I want cleaner buses,' " he says. "But I had to know stuff like: retrofits are things you can do to engines to minimize pollution. Oxidation catalysts are parts you can add to buses to reduce pollution.... And diesel exhaust accounts for 75 percent of soot emitted from all vehicles," he says.

Such knowledge helped him feel empowered, especially in the beginning when people basically told him: "What you do won't matter - you don't even have the right to vote!" he says.

This year, the high school senior leads the Sierra Club's anti-idling campaign for students. In his free time, he travels the United States helping students get similar laws passed in their states (only about a dozen states already have bans on idling).

Gina: Paving roads with trash

Three years ago, Gina Gallant was driving with her family in Cash Creek, British Columbia - known locally as "Trash Creek" because of an overflowing landfill site nearby. Suddenly, inspiration struck: Why not use garbage to pave roads?

So the 13-year-old from Prince George, British Columbia, who has been inventing since first grade, took on the challenge.

Gina, now 15, already had some knowledge of road-building, thanks to a job at the asphalt division of Husky Oil. But she still needed to do a lot of research.



Glass and rubber waste, Gina found, had already been tried in roads in the US. The materials hadn't worked well. So she turned to plastic - which takes up a whopping one-third of all landfill space around the world. (Just think of all the milk jugs, laundry-detergent containers, and water bottles that can pile up over time.)

"I thought that since both plastic and asphalt are petroleum-based, they might be compatible," Gina says.

Bingo.

Gina's new paving material, dubbed PAR for PolyAggreRoad, mixes ground-up plastic bottles with stone material and liquid asphalt. To take the product out of the lab and onto the streets, she tracked down companies willing to grind the plastic to her specifications and mix up enough of the compound to pave an actual road.

"At first, some of [the companies] didn't take me seriously because they thought, you know, a 13-year-old can't do something like this," Gina says. "But they finally realized I knew what I was talking about."

Finally, last October, the mayor allowed her to test PAR on a 160-foot strip of a local road. Now she's just waiting to see how her road holds up through freezes and thaws, and abuse from cars. Engineers already suspect that PAR will be able to withstand more movement without cracking than regular roads, Gina says.

"My ultimate goal is for a company to pick up my product," she says, "and to see it go all the way around the world to reduce garbage in landfill sites."

Her advice to others? "Believe in yourself and follow your heart, because if you can think of these ideas, you can do them."

Resources for young environmentalists

Ask any of the teens interviewed here, and they will tell this: There's a lot of support for young planet protectors, if you only know where to look. Beyond family, friends, teachers, and community members, here are some more resources to check out:

www.earthisland.org *The Brower Youth Awards* honors 13- to 22-year-olds nationwide who have demonstrated environmental leadership in their communities. Each year, six winners receive \$3,000 and leadership training in Yosemite National Park. Deadline June 1.

From: The Gloria Barron Prize for Young Heroes Official Website www.barronprize.org

www.barronprize.org *The Gloria Barron Prize for Young Heroes* honors community leaders (in areas including the environment) who are between the ages of 8 and 18. A \$2,000 check is awarded each year to 10 winners. Deadline May 31.

www.youthventure.org The organization empowers young people ages 12-20 to launch their own enterprises, such as small businesses, environmental clubs, and community service projects. Benefits include grants up to \$1,000.

www.earthforce.org The national organization provides opportunities for young people to be leaders in environmental issues in their communities, and nationally on their Youth Advisory Board.

www.epa.gov/enviroed *The Environmental Protection Agency* offers kids information on a range of environmental topics on its education site.

www.kidlink.org A global site for youth age 15 and younger to discuss problems affecting their countries and to work together to solve them.

One Makes a Difference, by Julia Butterfly Hill (HarperSanFrancisco, 2002). An easy-to-read, inspirational guide on the ways we can improve the health of our planet.