

GoNorth! Fennoscandia 2008

Module 3: Natural Resources: Sustainable Development - Chat #7

Wednesday, March 26, 2008

Welcome to the FIRST chat on the topic of World Resources!

Background: A resource can be defined as "something we use." Shelter, clothing, transportation, heat, and so on are all resources. The word also applies to the air we breathe, the water we drink, the land we farm, and the space we use for living and recreation. Not only do people use more resources today, but they also use them faster than ever before.

There are three basic types of resources: renewable, nonrenewable, and perpetual. In human terms, wind, solar energy, and the movement of tides last forever, so they can be considered perpetual. Renewable resources are replenished through natural or human actions. For example, trees may grow either naturally or in tree farms. Animals that give us food and other products are replaced naturally through reproduction. But renewable resources must be carefully managed. If a renewable resource is overused, it will not recover. Nonrenewable resources exist in finite amounts and once used are gone. Coal, oil, rocks, and minerals such as gold are examples of nonrenewable natural resources that took millions or even billions of years to form.

Trees are a special kind of renewable resource: They grow, so we have an infinite supply, but they grow slowly, so if our consumption of them outstrips their growth, we will run out. Moreover, there are different kinds of forests. Tree plantations typically grow only a few decades before they are re-cut; old-growth forests, however, are hundreds of years old and, once they are cut can take generations to regenerate, if they are left alone to do so.

Given the special character of trees, we need to think carefully about the way we use the products made from them if we want sustainable forests for the future. In Fennoscandia, where Team GoNorth! is traveling, some old-growth forests are protected, but others are being cut down to supply factories that make paper. Some argue that using ancient trees to make a product that is typically used just once is a misuse of a precious natural resource-but as long as people expect an abundant supply of cheap paper, the paper industry will continue to seek an abundant supply of wood pulp!

Building a sustainable future requires a shift in the ways we extract natural resources, a shift in the ways we use natural resources-and a shift in the way we think about products that are made from natural resources. In other words, every one of us has a role to play in making a sustainable future.

Some questions to possibly open the chat with or discuss prior to the LIVE chat!

- 1) What types of resources do you use in your daily life? Are these mostly renewable or nonrenewable?
- 2) Would you be willing to change your actions to use fewer resources? What suggestions can you make to reduce the amount of resources consumed in your life?
- 3) Are the world's governments being active enough in conserving resources? Are you?

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About our Speaker: Brian Benson

I get involved in about 100 projects a year at Ryan Companies, so obviously I don't spend a lot of time on each one. I'm good at getting to the heart of the matter, before worrying about the details. Most of the work I do is helping people understand how heat, moisture, air and water flow. It's harder than it sounds, but it can be really, really easy to understand, if you stop and think a bit. Heat flows from warm to cold (otherwise you wouldn't get frostbite, right?). Moisture flows from humid to dry (how fast does your bathroom mirror un-fog in the wintertime?). Air flows from high pressure to low pressure. Water flows from high to low (downhill, right?). The trick is to know how to boil down the complicated stuff into simple terms that non-engineers can understand. So, I write and talk a lot.

'Sustainable' and 'green' are terms that you now hear all the time. What do they mean? It's really very simple. We need to think much differently about how we use the earth's resources, before we exhaust them. Sustainability is all about using less: less drinkable water, less energy, less material, less waste. It's cheaper if we do, in the long run, and we won't run out.

A few little ditties about me: I love mornings. I love when it snows, especially when the snow sticks to tree branches and evergreen boughs. I love the sound of rain. I like to keep moving -- sitting still is something I do on when I have to. I love to sing in public. I love to read and think on my own time, drifting into another place and time. I love to work with wood (carpentry). I am a fanatic about spelling words correctly, and using them correctly in sentences. I love to play golf, softball, tennis, racquetball, croquet, frisbee, football. I love to play -- period. I'm more curious than anyone I've ever met. I hate to learn, but I love to know.

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GoNorth! Education Basecamp: Good Morning Everyone! We are so glad that you could join us today. This is our first chat on the topic of World Resources. Brian is here and ready for your questions!

Mr Schultz: 6th Grade: MSP: Did you know when you were in school that this is what you wanted to do? How did you choose this career path?

GoNorth! Expert: I was a math and science geek my whole life.....teased, and such, ya know.....engineering was simply the easiest curriculum I could think of....

Miss Havey: Wilson Elemen: WI: We have a recycling program here at our school that we all participate in. Do you think it is important for schools and companies to recycle too? Does your company?

GoNorth! Expert: Absolutely. Absolutely. On the other hand, we simply need to learn how to use less, instead of use more, and trying to find ways to recycle more stuff.

Mr Dimmer: 8th: Steffen: You sound so happy about your job and what you do in your bio on the website... do you like it that much? What is your favorite part?

GoNorth! Expert: Yes. Helping teach you is what I like the most. Actually, helping teach all kinds of folks (olllllld people, too!) is great fun.

Mr Schultz: 6th Grade: MSP: At the end of the day, do you feel like you are making a difference? We recycle everything at my house and my neighbor says so many people don't that it makes it not worth doing. I don't think I agree.

GoNorth! Expert: BRAVO!! Keep your chin up about it. It ALL makes a difference. Walking the stairs instead of taking an elevator, riding your bike instead of mooching a ride from your mom.....it ALL makes a difference.

Mr Dimmer: 8th: Steffen: Can renewable resources eventually become non-renewable?

GoNorth! Expert: If you're talking about a tree....it's always renewable. Water, air are all renewable. Oil, natural gas, are only renewable if you have the time to wait around 150 million years or so....

Miss Havey: Wilson Elemen: WI: Why won't some people in the government admit there is a problem and that we need to conserve our resources?

GoNorth! Expert: Because they're greedy, they're protecting their jobs/positions/office, etc. 'Nuff said?

Mr Schultz: 6th Grade: MSP: when you work with the companies that you do. do they want to improve things or are they coming to you because they have to?

GoNorth! Expert: Very few are really 'on board' with using less, and being sustainable. Most come to us because someone (a City, a State, the real estate market, the CEO) are making them.

Miss Havey: Wilson Elemen: WI: If you could, what nonrenewable resource would you want to change into renewable resources?

GoNorth! Expert: I would try to avoid using non-renewable resources as much as I possibly can. It's really, really hard, since we've all grown up with the luxury of having gas for our cars (and cars that go anywhere), natural gas for heating, coal-fired electricity at every outlet in our houses, etc. etc.

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Mr Dimmer: 8th: Steffen: We're reading about clean water becoming scarce.... then what will we do?

GoNorth! Expert: Good question. It's mostly a problem in coastal areas around the world. MN has some of the cleanest and most plentiful water supplies in the world. We need to keep using less of it.

NCSS-Rhineland, WI: do you think that our world will use a different main resource besides oil.

GoNorth! Expert: We'll have to. We've most likely reached a worldwide peak for oil production, and the price will keep rising. We wouldn't be in Iraq if we didn't have to protect the supply of oil coming our way. Hopefully, we won't end up going to war with China and/or India when the production wanes.

Miss Havey: Wilson Elemen: WI: I'm Alex. I saw a special on the Discovery Channel last summer and it showed this big building in New York City that was environmentally friendly. It even collected Rain Water and used it to flush toilets! Are there any buildings that your company has made that are that cool?

GoNorth! Expert: Yes. We talk about those very things each and every day. Most folks in this country don't want to pay for those cool things, but that's changing....fast. We talk about collecting shower and laundry water to flush toilets, we talk about holding rain water on the roof to let it seep into the ground slowly, we talk about using fans to move air around instead of air conditioning ALL the time....just a few things.

Mr Schultz: 6th Grade: MSP: So then if someone is making them... then are they even more picky about the cost and wanting to cut corners to save their bottom line?

GoNorth! Expert: In the world of business in the US, EVERYONE is picky about cost. You and I need to keep preaching and poking in order that ollllllld people pay more attention.

NCSS- Rhineland, Wisconsin: Which resource do you think is the best renewable resource to use?

GoNorth! Expert: For energy? The sun. That's the source of all of our stored energy on earth, whether it's in oil or natural gas, or trees, or coal. We need to use the rays of the sun and wind through the trees to power ourselves. But mostly, we need to get used to the fact that we can have instant everything....cars, elevators, lights, even heat. Sometimes we just need to get by with a little less sometimes.....otherwise, we'll have no choice but to get by with a LOT less in the future.

Miss Havey: Wilson Elemen: WI: Part two to my question (Alex again) Do you wanna make a building like that?

GoNorth! Expert: Every single time. Think about the old farmhouses with the windmill, the trees to break the wind, the cistern for storing rainwater, the fields and gardens around. That's the kind of thing I think about every single time I'm asked for advice.

Mr Dimmer: 8th: Steffen: Isn't building 'green' expensive? If so, do companies not want to do it because of extra cost?

GoNorth! Expert: It's expensive, but only if you wait until you 'strap on' green technologies. If you start at the beginning with design, and everyone is 'on board' with the goals, then it really isn't. Depends on whether you worry about the building for 5 years or 50 years, too.

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NCSS-Rhineland, WI: do you think that humans using so much oil and coal do you think that is leading to the economic crash

GoNorth! Expert: I'm not going to be dark about this, but if we don't get very, very serious about using less, we won't have a choice in the future.

Miss Havey: Wilson Elemen: WI: Does your company recycle in the office?

GoNorth! Expert: Yes. We recycle office paper, cans, bottles, cardboard boxes. I'm not sure about the rest.

Miss Havey: Wilson Elemen: WI: Do the construction people recycle things too?

GoNorth! Expert: Good Question! One of our most recent construction standards is to recycle 50% or more construction waste on every project. If you're curious, look up a company named Atomic Waste

Mr Dimmer: 8th: Steffen: Have you seen the show 'Living with Ed'? He is an actor and helps people make their house more green. (my parents said he was on a show called St Elsewhere..) Some of the stuff he does is really cool but people seem to think he is a little crazy because he cares so much. (I guess it's not a question so much as it is a statement)

GoNorth! Expert: I've never seen the show, but if you're talking about Ed Begley, you're right. He's a good actor, and the only reason he's crazy is because he's really trying to communicate what it takes to get 'off the grid'.

NCSS-Rhineland, WI: so you think that scientist today will make a water powered cars

GoNorth! Expert: I don't believe that the separation of water into H₂ and O₂ is all that 'renewable'. I doubt if water-powered cars will ever be feasible.

Miss Havey: Wilson Elemen: WI: Do you think it is important for schools and companies to recycle too and not just people in houses?

GoNorth! Expert: Absolutely. More so. They use more.

Mr Schultz: 6th Grade: MSP: Do you drive an Electric Car?

GoNorth! Expert: I don't. I'm not perfect. When I bought my car 3 years ago, the waiting list for Toyota Prius' was 18 months long. On the other hand, if you count walking to the LRT, taking the ELECTRIC train to 5th & Nicollet, then walking to my office as an electric car, then I'm in!

Mr Dimmer: 8th: Steffen: We're collecting our electric and heating bills for a year for an activity coming up in the curriculum.. what is the #1 thing people do wrong with their homes? or offices?

GoNorth! Expert: I wouldn't say anyone is doing anything wrong. I think the #1 thing is keep the house too warm, and not just wearing a bit more clothing in the wintertime. #2 is keeping too many lights on. #3 is not using the great outdoors for cooling as much of the year as possible.

GoNorth! Education Basecamp: These are fabulous questions! We have about 10 minutes left....enough time for a few more questions.

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Mr Dimmer: 8th: Steffen: Yes, that's his name Ed Begley. Do you think people can really live 'the life they want' off the grid?

GoNorth! Expert: If 'the life you want' includes sometimes waiting for the wind to blow before you can use your TV or charge your PC, or listen to your favorite music, then yes. I'm envious of people like that.

Mr Schultz: 6th Grade: MSP: We are learning about all the things that are use wood to be made. Obviously in construction you use a lot of wood. Where do you get it? Does it come from old-growth forests?

GoNorth! Expert: Part of what we're working on is to use as much FSC (Forest Stewardship Council) lumber as possible. It's a struggle, since it's more expensive, but the markets are moving in that direction. Take a look online at this organization.

Miss Havey: Wilson Elemen: WI: We are outside of Milwaukee. What's the LRT? Is it a bus?

GoNorth! Expert: Sorry. LRT is Light Rail Transit, and electric train in Minneapolis that runs from downtown via the airport to the Mall of America. It's JAMMED as rush hour. If you live in DC or NY or Chicago you see this every day, but in Mpls there's only one line, and it's very, very popular.

Mr Dimmer: 8th: Steffen: So many other countries have trains as a form of travel... what is stopping the US? Is it simply cost?

GoNorth! Expert: Cost, yes, but the biggest is the desire to build a house waaaaaay out in the country and have a car for personal freedom. In the East US, it's pretty common to use mass transit, but in the Midwest and West, it's looked upon as low class. I like it. It's my big, public limousine.

Mr Schultz: 6th Grade: MSP: Have you talked to students before? Does your company let you go to schools and talk about doing things sustainably and responsibly? Do you like talking to us?

GoNorth! Expert: Yes. YES YES YES YES YES YES YES!!!!

NCSS-Rhineland, WI: is it feasible to make fresh water out of salt water and have it be a new resource?

GoNorth! Expert: Yes. It's done all the time, with the biggest plants in the Mideast. It's very expensive to operate.

GoNorth! Education Basecamp: While Brian is answering his last question, we want to thank you for joining us today. We had so much fun and we hope that you not only enjoyed yourself, but learned a lot too-

GoNorth! Education Basecamp: A BIG THANK YOU to Brian for sharing his time with us today-

Mr Schultz: 6th Grade: MSP: What is the best thing that we can do as students to make a difference?

GoNorth! Expert: Be cocky about using less. Slow down. Smell the air. Listen to the birds. Surround yourselves with friends and family who are 'on board' with this. Live like your gonna live for 150 years.

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Miss Havey: Wilson Elemen: WI: Thank You so much. This was fun and we learned a lot from you!!

Mr Dimmer: 8th: Steffen: thank you!!!

Mr Schultz: 6th Grade: MSP: This was a really good chat today. Thanks for answering so many of our questions!!

Thank You!

From all of us at Team GoNorth!, Thank You for joining us today! Join us again next week on Tuesday, April 1st at 1PM CST for our second chat on the topic of World Resources.