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Don't Lose Hope for the Planet – Defiant – Medium

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An astronaut's view from space. NASA photo

“Doom. Gloom. All I ever hear.”

— Case, *Neuromancer* by William Gibson

I'll be the first to admit it: reading and writing about climate change can be a real drag. Not only does the news seem uniformly bad — a relentless march of cold, implacable facts signifying an oncoming catastrophe — but there is a whole cottage industry (more of a mansion industry, really) devoted to discrediting those facts.

It can feel like reporting on the impending razing of your own house, accompanied by a chorus of aggressively ignorant naysayers (who, by the way, live in the same house) insisting that everything is fine. Not unlike the picture of that dog in the bowler hat that's so popular these days. You could argue that climate change was patient zero of the “fake news” phenomenon.



But on another level, I get it. Leaving aside [the longstanding role of the fossil fuels industry](#) in actively misleading the public, very much like the tobacco industry, I can understand why one would prefer to deny that climate change is happening, to instead cling to feeble arguments to the contrary and accuse scientists (and meteorologists, and the weather) of orchestrating a worldwide conspiracy.

It's the same reason that I, when I was a cigarette smoker, found myself Googling for assurances that my risk of getting cancer wasn't really that high— and that was after my dad died from complications following surgery on an abdominal aortic aneurysm, a smoking-related condition which, like most cardiovascular diseases, has nothing to do with cancer. Like the old saying goes, denial ain't just a river in Egypt.

Actually, the more I think about how dreadful and dystopian climate change headlines can sound, the more I understand the appeal of climate change denial. And the more I see the inevitability and destructiveness of the cycle. In a perverse way, to deny climate change is to be able to have hope for the future. So the worse the headlines, the fiercer the denial. Round and round we go, the serpent eating its tail.

But it doesn't have to be that way. We don't have to lose hope. We can change the narrative from one of doom and gloom to one of healing and hope, and we can do so without denying facts or ignoring reality.

We not only can. We have to.

That's the message of [Snowchange Cooperative](#), an Finland-based organization that's at the front lines of climate change, and one that's unlike any other on the planet. For almost 20 years, Snowchange has been combining modern scientific techniques with the traditional wisdom of indigenous peoples— including the Saami, Chukchi, Yukaghir, Inuit, Inuvialuit, Inupiaq, Gwitchin, Icelandic, Tahltan, Maori, Indigenous Australian, and many others that this writer admits to having never heard of before reporting this story— to help these communities document and adapt to the effects of climate change all over the world.

Tero Mustonen, PhD and president of Snowchange, embodies this duality perfectly. Not only is he a scholar of Arctic biodiversity, climate change, and issues facing indigenous peoples, he is also the head of a Finnish village called Selkie, in the eastern region of North Karelia. Dr. Mustonen lives off of the land, in a land-based economy complete with fisheries, in the middle of an old-growth (read: ancient, undisturbed) forest, with his wife, a couple of goats, a few chickens, and no running water.

“The boreal [regions] and the Arctic are one of the places where climate change has been proceeding faster than almost anywhere else— a lot of the things that were predicted in 2001 or 2002 [have manifested in many ways throughout the arctic](#),” Dr. Mustonen said.

“One of the things we try to put forward are practical solutions and opportunities, and things that actually address the impacts [of colonialism, and the environmental damage wrought by industry] and also the larger scale of what we need to do in terms of nations, and cultures, and economies, and things like that— so we operate

from the grassroots level in many, many remote communities, all the way to very high policy levels, including the UN, US, UK, and Indian governments.

“For this year, we have a number of flagship activities on ecological restoration. Many of these remote communities are better off if they are able to restore and address past land use changes that have taken place,” most often through colonial land theft and industrial pollution, “and through that, rebuild their resilience, for example in the context of rivers and catchment areas.”

Fall colors on the Lena river, the major Siberian river. The river banks and the Lena basin is affected by climate change, permafrost melt and changing water regimes. The Siberian permafrost melt has global consequences for the planet, due to methane release. Credit: Snowchange, 2017.

One such project is the collaborative management of the Näätämö river basin and catchment area, where rainfall flows into the river, by Snowchange and the Saami people of Finland, who rely on the salmon that come to the Näätämö to spawn. This work began in 2011 and is ongoing; a look at [a comprehensive plan for co-management of the river](#), released in 2013, gives a sense of the scope of the work, which includes an overview of historical Saami fishing practices, oral histories, and ecological and climate data, among other information.

Another Snowchange project, ongoing since 2008, has been the provision and installation of solar panels to the camps of the indigenous Chukchi Turvaugin, a nomadic reindeer-herding people in Kolyma, Russia.

Central to the vision of Snowchange are two deeply connected ideas: one, that indigenous modes and bodies of knowledge have as much validity as those of modern science; and two, that empowering local communities, particularly those who have had power taken from them through the process of colonialism, can have a global impact.

Dr. Mustonen has seen both principles in action through work in his own village of Selkie [restoring the Jukajoki river system](#). “The whole catchment area and the whole river basin has been affected by negative industrial impacts. This is also an area that is hit increasingly by extreme weather events,” he said. “Every year is more different— for example, this year we suffered from very unstable ice conditions, new low pressures, it’s very warm. And this is putting a lot of stress on the trees, on the animals, and the water bodies.

“Seven years ago, we launched a comprehensive action— and exactly in the mindset of being a very positive action trying to address climate and environmental changes — a 2.6 million Euro-wide program on the collection of oral histories and traditional knowledge observations regarding those changes, combined then with limnological sciences and water analysis, leading to ecological restoration in this river system,” which had been ravaged by peat mining operations, resulting a massive fish die-off, Dr. Mustonen said.

The project was chosen has won a number of awards, including [one from the Energy Globe Foundation](#) in Austria. Dr. Mustonen also [won a 2016 Emerging River Professional Award](#) from the

International River Foundation. And when Neil Young came to Helsinki last July, [he invited Snowchange to join him](#) and share information about the Jukajoki project with him and his fans.

Dr. Mustonen said that combating climate change begins with modest projects like restoring the Jukajoki river basin, predicated on small victories and positive narratives.

“It’s empowering the people to recount what’s going on. Their knowledge is taken seriously— it’s as valid as science in our program,” he said. “So when an old lady is talking about how things used to be eighty years ago on the river, that’s a crucial indicator and source of knowledge just as valid as a scientific assessment.”

While the dominant Western narrative on climate change is one of doom and gloom, Dr. Mustonen said that the outlook of Snowchange is one of hope— that, properly tended and left to its own devices, nature has a self-healing capacity. To return to the smoking analogy, I suggested that this capacity is similar to the way one’s body heals within a few weeks of giving up cigarettes. Dr. Mustonen laughed in assent. It’s probably more accurate to say that the self-healing capacity of the human body is an expression of the self-healing of nature.

Reindeer roundup of the nomadic community Turvaugin, April 2005. Temperatures at -50C. Lower Kolyma region, Republic of Sakha-Yakutia, Siberia, Russia. Credit: Snowchange, 2017.

But for that to happen, power has to be given back to indigenous peoples around the world. “That’s a very powerful counter-narrative to our dominant idea that natural resources have to be used— we

have to let the mining companies in to bring jobs, we have to get the timber, we have to take the oil, the gas, the minerals,” Dr. Mustonen said. “Why don’t we do things differently, and try to combine something addressing past events that are causing these troubles with a new style of management and governance?”

If this all sounds like the dreams of hippies, Dr. Mustonen and Snowchange have the experience and the scientific bona fides to back up their ideas. The idea isn’t that indigenous peoples are perfect— Dr. Mustonen has no use for the paternally racist notion of the “noble savage”— but that, if approached with the proper respect, they and their knowledge can be valuable allies to modern science, tempering the rapacious, instrumental way that scientific knowledge has been deployed since the industrial revolution.

“When you have such linguistic and cultural diversity of traditions in the boreal and in the Arctic, what’s inside those indigenous traditions is a very deep understanding of a local place, or an ecosystem, or a forest,” he said. “And it’s really up to those people in those societies to choose what they will say in public, or what they will want to share. So there’s nothing in those communities for outsiders unless those communities say, ‘these are our stories, and these are what we’re willing to share with you.’”

Neither is he a Pollyanna about the changes to come. Dr. Mustonen doesn’t envisage a return to some idealized past climate, but he is hopeful that, although things are likely to get worse before they get better, they will ultimately get better.

“The world will be different— there’s nothing we can do to stop the changes underway,” he said. “But that’s not, in my opinion, a

defining civilizational question. If that's the case, let it be, and let's relearn our connections with nature in the village or in the city where we're living.

“We need to tackle pollution and emissions and all that, but first and foremost, I think the land use and sharing power, will be the defining test for humanity, if we will survive,” he said. “And the end result will be very different from where we started.

“Over the last twenty years, I can't believe some of the communities, and their success, how well they are doing,” he said. “And that's just to say that there's lots of hope, lots of good things to do. And yes, things will change. But we'll survive. That's the key message.”

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