

# Newsletter

## The Toxic Impact of U.S. E-Waste in India

by Lauren Ornelas

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Delhi, India, is a major destination for U.S. e-waste. Most of that waste is dismantled by poor workers in India's unregulated "informal" recycling sector under conditions that threaten their health and their communities.

In fall 2008, I traveled to India with Sheila Davis (SVTC's Executive Director) and Serena Mau (a student intern from UC Berkeley). There we collaborated with India's Chintan Environmental Research and Action Group on a video documentary and also helped gather key environmental and worker health data.

We had all seen shocking photos of men, women, and children dismantling toxic e-waste without protection—and in Delhi's Gali 2 (Lane 2) we were able to meet and talk with some of these workers. This neighborhood, a hub for electronics recycling activity, is considered quite dangerous, and our driver would only take us so far. The unpaved, rutted roads were lined with dusty piles of TVs and computers—in stark contrast to the brightly clothed women and girls walking by or peering out at us from their windows. One man pulled out a blanket so we could sit with him while he



SVTC, CHINTAN & MAU

One of the workers featured in the documentary film is Danish, seen here smashing computer monitors by hand amid a cloud of lead-filled dust.

worked and, through a translator, he told us about his life, his work, and his hopes for the future.

Later, we participated in a public hearing where hundreds of waste workers voiced their concerns and began organizing for safer conditions. As Sheila noted in her blog entry, "...(it) was one of the most hope-filled experiences of my career."

Since our departure, Chintan has continued to work with Delhi's e-waste dismantlers and together they have formed the 4R Association (Responsible Recycling, Recovering, Re-use), a first step toward validating the informal e-waste recycling sector and gaining official recognition for their businesses.

### Order Your Own DVD of *Citizens at Risk*

In collaboration with groups in India, SVTC produced the short documentary *Citizens at Risk—How Electronic Waste is Poisoning the Path Out of Poverty for India's Recyclers*. You can order a DVD of the film (\$5) on our website ([www.svtc.org](http://www.svtc.org)) and click "Resources").



The Silicon Valley Toxics Coalition (SVTC) is a diverse organization that promotes human health and environmental justice in the high-tech industry through research, advocacy, and grassroots organizing.

SVTC was formed in 1982 to address the serious environmental and public health impacts of high-tech manufacturing in Silicon Valley. We were instrumental in the enactment of landmark environmental laws throughout the region. As the industry has grown and expanded globally, SVTC has worked regionally, nationally, and internationally for sustainability in the high-tech industry.

Our goals include environmental sustainability and clean production in the high-tech industry and improved health and democratic decision-making for communities and workers most affected by the high-tech revolution.

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## LETTER FROM THE EXECUTIVE DIRECTOR



STEVE JUVENSON

I applaud the Obama administration for placing energy sustainability and green jobs at the heart of its economic recovery plan. However, as we work to address the twin goals of economic and environmental recovery, we need to be vigilant to ensure that the new technologies developed to address climate change don't cause a new wave of environmental damage.

Building upon SVTC's longstanding commitment to safe, sustainable, and just technology, we are working to develop and implement effective regulatory policies for this latest wave of industrial materials and processes. Our current focus is on the rapidly evolving solar energy sector and the proliferation of untested nanomaterials.

At the same time, we need to ensure that new jobs created in the sustainable energy sector are also socially sustainable. Truly green jobs protect worker health and safety, while offering a living wage, health and other benefits, job satisfaction, and opportunities for advancement.

These are complex and largely unexplored regulatory areas, and over the past year SVTC has laid important groundwork for the development of effective policy. SVTC's Campaign for a Just and Sustainable Future in Solar Energy, launched in January 2009, builds upon our past research, the publication of two important informational reports, and our development of research, advisory, and policy collaborations.

The response we have received from industry, policy makers, and the news media has been encouraging, and I see a growing awareness of the need to address these important health and safety issues. Rapid innovation presents many opportunities, but it can also pose enormous dangers. With so many new technologies scaling up so rapidly, we have a limited window of opportunity for action—our failure to act now will leave a toxic legacy for future generations.

Sheila Davis  
Executive Director



# SVTC's Solar Energy Campaign

## ENSURING A SAFE AND SUSTAINABLE SOLAR SECTOR

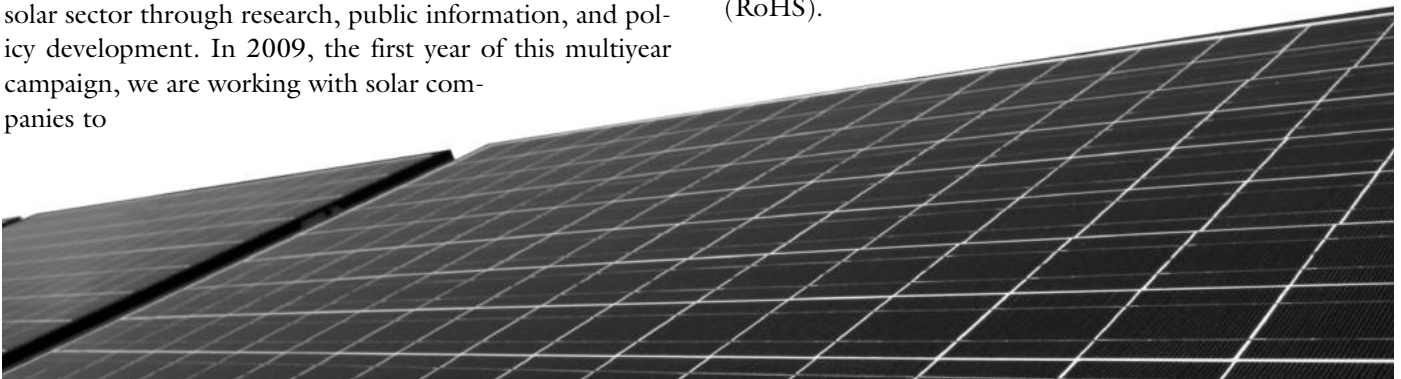
by Monica Cendejas

Solar energy technology is a key tool in the fight against global climate change—but this rapidly growing high-tech sector also presents significant health and environmental hazards. The most widely used solar panels are silicon-based—with the same production and end-of-life hazards as microelectronics. In addition, emerging solar technologies use materials known to be toxic (such as arsenic and cadmium) as well as new and untested nanomaterials.

SVTC's Campaign for a Just and Sustainable Future in Solar Energy is addressing the long-term safety of the solar sector through research, public information, and policy development. In 2009, the first year of this multiyear campaign, we are working with solar companies to

establish solar panel take-back programs; building support for a comprehensive “green jobs for solar” platform; mapping the supply chain of the industry; and educating our constituents around this important issue.

In January 2009, SVTC released a comprehensive report detailing the hazards of solar production and end-of-life disposal and recycling. The report urges industry and legislators to develop a comprehensive regulatory framework for emerging new chemicals, including nanomaterials, and phase out the use of chemicals already restricted by the E.U.'s Restriction of Hazardous Substances (RoHS).



## SVTC Solar Report Makes Headlines

SVTC's January 2009 report, *Toward a Just and Sustainable Solar Energy Industry*, received wide media coverage. Reports included pieces in the *Los Angeles Times*, *San Francisco Chronicle*, *San Jose Mercury News*, *New York Times*, as well as articles in *Fortune* magazine, Salon.com, and ZDNet, and podcasts on CNET. The report, available on the SVTC website, has been downloaded more than 3,800 times.

- “Many of the environmental issues raised in the report are similar to those faced by the computer industry as it grew.” *San Francisco Chronicle*
- “...the Silicon Valley Toxics Coalition warns that the industry and lawmakers need to set policies now to ensure that a clean technology doesn't leave a dirty legacy.” *Los Angeles Times*

- “SVTC compellingly documents the dangers to both workers in the solar power industry and the environment at large from the use of a wide array of toxic chemicals currently employed to manufacture silicon and all forms of solar power.” Salon.com

To order a hard copy of SVTC's solar technology report (\$6) or to download an electronic copy (free), visit our website ([www.svtc.org](http://www.svtc.org)) and follow the Solar Energy Report link.



# A Lack of Industry Transparency

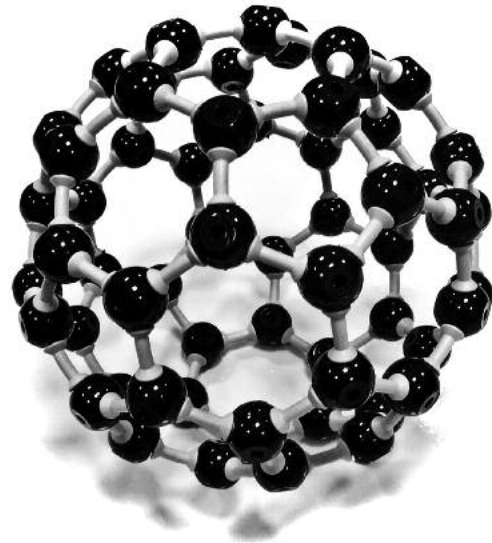
by Monica Cendejas

In April 2008, SVTC's report *Regulating Emerging Technologies* examined the disturbing lack of regulation in the nanotechnology sector. Nanotech uses atoms and molecules as building blocks to create materials with entirely new properties—including potential toxicity. Untested and unregulated nanomaterials are already widely used in products as diverse as cosmetics, electronics, pharmaceuticals, and solar panels.

The report traced alarming parallels between today's lack of nanotech regulation and gaps in semiconductor industry regulation in the 1980s, when toxic chemical spills poisoned Santa Clara Valley groundwater.

After the report's release, SVTC surveyed 129 San Francisco Bay Area companies identified as possible manufacturers or users of nanomaterials. SVTC released the survey findings in December 2008, but our ability to draw conclusions was limited by the low response rate. We received a total of 12 responses, with just six companies confirming the use of nanomaterials.

Says SVTC Executive Director Sheila Davis, "Our survey revealed a lack of industry transparency about basic health and safety information—residents and consumers have a right to know what is being produced in their backyards."



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Only three of the 28 companies that publicly state their use of nanomaterials confirmed that they have some type of environmental, health, and safety practices in place. Only one respondent was willing to share information regarding potential health impacts, clean-up plans, and precautions to prevent accidental exposure to nearby communities.

**A summary of the nanotechnology survey results is available on our website ([www.svtc.org](http://www.svtc.org)).**

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## Investigating the Dark Side of Solar Energy

by Lauren Ornelas



**Dustin Mulvaney, Ph.D.**, served as the primary researcher for SVTC's widely publicized report on the potential dangers of solar energy technology. Dustin's work with SVTC is funded by a fellowship from the Robert and Patricia Switzer Foundation, and we are delighted to be working with

him! Dustin's background and broad knowledge make him the ideal person to explore and explain these complex and rapidly changing issues.

Dustin earned his Ph.D. in environmental studies at UC Santa Cruz, where he is currently a lecturer and College Eight Fellow. He also holds a B.S. in chemical engineering and a M.S. in environmental policy studies from the New Jersey Institute of Technology, where he was awarded the Otto York and New Jersey Young Chemist Awards. Dustin spent several years as a process engineer in the chemical industry and several more working on groundwater remediation.

Following up on the report release, Dustin will lead SVTC's work with solar companies to determine the next steps for ensuring a sustainable and just future for solar energy.

# Campaign Urges TV Take-Back

by Monica Cendejas

The U.S. switch from analog to digital TV (DTV) signals (now delayed until June 12, 2009) will result in up to 80 million obsolete TVs. The delay came as many in the Obama administration and Congress charged that the previous administration and TV manufacturers had mismanaged the switchover, which largely impacts low-income and rural communities and communities of color. The switch is generating a flood of discarded TVs. Few of these will be recycled, and even fewer will be recycled responsibly.

Through the “Take Back My TV” campaign, SVTC and the Electronics TakeBack Coalition (ETBC) have been working to educate consumers about the switch and about their options. These include the use of government-subsidized converter boxes and responsible recycling if analog TVs are discarded in favor of digital TVs.

The campaign calls on consumers to take action by asking manufacturers to take back their obsolete products and ensure that they are recycled safely and responsibly without



being exported or sent to prisons for dismantling. We have had a number of successes to date, with Sony, Samsung, LG, Wal-mart, Panasonic, Toshiba, Sharp, and Best Buy all launching national TV recycling programs.

To find out more about the DTV switch, visit [www.svtc.org/TVAction](http://www.svtc.org/TVAction). You can also order bundles of informational leaflets and help get the word out; follow the “Resources” link on our homepage to *Citizens at Risk*.

## Recognizing SVTC’s Foundation Supporters

Calvert Social Investment Foundation	Marisla Foundation
Education Foundation of America	Moore Charitable Foundation
Fidelity Gift Fund	Nicholas B. Ottaway Foundation
Fowey Light Fund	The Overbrook Foundation
Fred Gellert Family Foundation	Panta Rhea Foundation
Richard & Rhoda Goldman Fund	Philanthropic Ventures Foundation
Victor & Lorraine Honig Fund of the Common Counsel Foundation	San Francisco Foundation
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David L. Klein Jr. Foundation	Ruth Sherer Charitable Gift Fund of the Community Foundation
Joan & Wally MacDonald of the Agape Foundation	Silicon Valley Community Foundation
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## Consider a Bequest to SVTC

Do you value the work that SVTC is doing to hold corporations accountable for their actions? Do you value the quality of the environment in which you live, work, and play? Consider leaving a **bequest** to SVTC to help ensure that future generations are protected from environmental pollution. For information, please contact Maureen Cane, SVTC Development Director, at 408-287-6707 x307 or [mcane@svtc.org](mailto:mcane@svtc.org).

## Thank You! Your Support Makes SVTC’s Success Possible

Throughout SVTC’s 26 years of environmental activism, our work has relied on the commitment and generosity of people like you. Together we have worked to ensure a safe, sustainable, and just future for the global high-tech industry. Thank you for your part in making our shared vision a reality.

With your support, we can continue to make a difference! You can make a secure, tax-deductible donation by simply filling out and mailing the enclosed donation envelope. Or if you prefer, you can donate online at [www.svtc.org](http://www.svtc.org).

# E-Waste Dumping in Ghana

A REPORT FROM JOURNALIST  
MIKE ANANE

Increasingly, Ghana is a major destination for discarded e-waste. Each month, hundreds of tons of electronics arrive in Ghana, mostly from the U.S. and the E.U. Environmental journalist Mike Anane of Ghana is campaigning to stop this toxic flood of waste. He describes the devastating impact of e-waste on Ghana.

“Much of the e-waste shipped into Ghana is under the guise of second-hand, reusable items. Ghanaian businessmen buy items untested. The majority of the items bought for reuse end up in dumps, as they simply do not work. In Ghana, there are no mechanisms in place to properly dispose of or recycle e-waste.

“Children as young as five years old break and dismantle computers and TVs, releasing lead into the soil and ground water. They also burn wires and other parts to extract copper, releasing toxic fumes into the air. Workers at the dumpsite wear no protective gear and complain of persistent headaches, respiratory problems, and chest pains.



COURTESY OF MIKE ANANE

“A lagoon and a river that run through the dumpsite are both now biologically dead due largely to the e-waste dumped directly into the water. Each time it rains, the cocktail of poisons from the dumpsite is flushed into the lagoon and the river and emptied into the sea.

“The cost to the environment in Ghana and the health of our people is increasingly obvious. The U.S. EPA, other regulatory agencies, and concerned organizations need to act fast. This is my humble appeal.”

SVTC continues to work to stop the flow of toxic e-waste from the U.S. to countries such as Ghana and India.

*Mike Anane (pictured above) is president of the League of Environmental Journalists in Ghana and a laureate of the United Nations Environment Programme Global 500.*

SILICON VALLEY TOXICS COALITION NEWSLETTER

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