

WOMENTM

RAISING

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WORK BEFORE
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**PROFESSOR
JOYASHREE ROY**

ON THE CLIMATE HAS A PRICE TAG



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PROFESSOR JOYASHREE ROY

On The Climate Has A Price Tag

By Daniel Agusi



What if the problem with sustainable living is not that people do not care, but that we have been asking the wrong questions about what it really costs?

Going green has developed its own shopping list. Install solar panels. Buy the electric car. Choose organic. Avoid fast fashion. Upgrade to energy-efficient appliances. Make the responsible choice.

It sounds straightforward until money enters the conversation.

The electric car may cost less to run but more to buy. Solar may eventually reduce an electricity bill, but someone still has to pay for the installation. Sustainable clothing can carry a premium. Organic food can cost more at the supermarket. And suddenly, a conversation that appears to be about environmental responsibility becomes one about income, infrastructure and access.

That tension sits at the centre of this edition of Raising Women Magazine: The Climate Has a Price Tag. If the world is serious about asking billions of people to live differently, who pays for that transition? And are we too quick to judge the person who cannot afford the supposedly greener choice?

We took those questions to Professor Joyashree Roy, Distinguished Professor and Director of the SMARTS Center at the Asian Institute of Technology, whose work spans climate change, economics, sustainable development and consumption. But almost immediately, she complicated the premise of our conversation.

Sustainable living is not inherently the expensive option. Perhaps many of the things we consider “cheap” have only remained cheap because their environmental costs are paid somewhere else, by society, by the planet or, as Roy argues, by generations that have not yet arrived.

Over the course of our conversation, she moved from electric three-wheelers in rural India and solar financing models to organic food, women’s economic agency, the Global South and the responsibilities of corporations and consumers. Again and again, she returned to one deceptively simple idea: we are comparing the cost of sustainability against the wrong benchmark.

And when we told her the title of this issue, she offered perhaps the most fitting place to begin:

“Climate has a price tag, but we are not paying anyone this price.”

So, what would happen if we finally did?

Q: We are constantly told to make greener choices: install solar, drive electric, eat organic, buy sustainably. But many of those choices require money upfront. Are we in danger of designing a green transition for people who can already afford to be green?

When we talk about an electric car, for example, we are already talking about a class of people who can afford a car. They own a car and want to change it to another kind of car. We call this improving their choices. You are driving a diesel, petrol or gasoline car and you change it to an electric car.

But let us come to a different income class. If you go to peri-urban and rural areas of India, electric three-wheelers have been used for 10 to 12 years.



People found that they could charge them at home and use them to provide transport services without having to buy fuel. When I visited Kathmandu in Nepal years ago, electric three-wheelers were already being used alongside hydroelectricity.

What does that tell us? Rural people can already have a cleaner, more sustainable lifestyle compared with the urban rich. EV does not always mean owning a car.

What we are saying in economics is that you need to think about what you are buying. Are you buying the product, or are you buying the service? You need mobility, but why do you have to own everything? I do not own a car. I have decided never to own one. Whenever I need one, I hire the service. Then I have a choice between a cleaner service and a dirtier service.

The same applies to organic food. When I go to rural areas of India, I find people eating their home-grown vegetables. They eat healthier food than us.

Organic food is costly and inorganic food is cheaper partly because we have made inorganic food artificially subsidised. We are therefore comparing them against the wrong baseline. Current unsustainable practices have been made artificially cheaper over many years because of political economy, vested interests and connections with policymakers.

When we throw food waste away or emit exhaust into the atmosphere, we are using climate and environmental services free of cost. Traditional economics has largely priced products according to the costs producers pay in the marketplace, without adequately accounting for environmental services.

But the environment and climate system are intergenerational assets. They give us clean air, clean water, forests and soil quality. We treat these things as though they are free, while putting our waste into the environment without paying to clean it up. That eventually costs us through health impacts, clean-up costs and climate-related damage.

I really like your tagline, "The Climate Has a Price Tag." Climate has a price tag, but we are not paying anyone this price. We are borrowing from future generations the good climate services that we are using today. We are indebted to them. We need to pay that debt; otherwise, we are not doing justice to our children and grandchildren.

So when we say that sustainable products or sustainable lifestyles are costly, we are comparing them with the wrong benchmark. The products and services we use today do not reflect their true cost to the individual and to society. If those environmental costs were internalised, many things we currently regard as cheap would become much more expensive, and sustainable lifestyles would look comparatively cheaper.

When you follow an unsustainable practice, you consume a product or service while also producing an environmental "bad", and that has a cost. Add that environmental damage to the market price and the actual cost becomes much higher.

Q: There is an interesting contradiction in clean technology: something can be cheaper over its lifetime and still be unaffordable today. A solar system may eventually reduce electricity bills, for example, but a household first needs the money to install it. From an economist's perspective, how do we solve that gap between "cost-effective" and actually "affordable"?

Again, I would return to my first argument: when we make these comparisons, we are already using the wrong benchmark. We measure things such as the levelised cost of electricity or energy over a technology's lifetime. Solar and wind are now cheaper compared with fossil-fuel-based alternatives in many circumstances, but what you are asking about is the first cost: the installation cost is higher.

Think about conventional electricity. Coal-based electricity required power plants, transmission lines and enormous infrastructure investments. Historically, much of that was built through public investment. Electricity was then made affordable by public policy to encourage people to access it and enjoy the benefits of a better life.

Why can we not think similarly about solar?

There have been business models where a company installs solar panels on a household's rooftop without requiring the household to pay the upfront cost. The household leases its rooftop, uses the electricity it needs, and the remaining electricity can be sold back to the grid, which goes to the installing company as income.

The household therefore does not have to overcome that enormous first-cost barrier itself. Even when you buy a refrigerator, there may be different payment models. Those who can afford it pay the whole cost upfront. Those who cannot may pay monthly over time.

So the first-cost barrier and the question of how to make something affordable for everyone are not new problems. The business model matters. We already have different economic instruments and business models that can remove this barrier. They have been implemented in different parts of the world.

Earlier, when we were students, we studied solar as a backstop technology because it was not sufficiently cost-competitive. That has changed. Solar is now market-competitive. The same principle applies to organic food. If conventional food benefits from subsidies while its environmental costs are excluded, then its price is artificially low. If you put the environmental price tag onto it, the comparison changes. Organic farmers receive more incentives, demand increases and the market can grow.



Cover Story

This does not mean killing existing businesses. It means incentivising them to transition towards sustainability. There is another example from India involving rural women and cooking. Moving households away from biomass towards LPG required infrastructure, but buying a cylinder and stove created another first-cost barrier. One policy response was to provide the first stove and cylinder without requiring the household to bear that initial cost.

Of course, access does not mean everybody changes their habits overnight. But it demonstrates the principle: you can design a system that breaks the first-cost barrier.

Q: We increasingly treat consumption as a form of climate responsibility: buy the better product, avoid fast fashion, choose the electric vehicle, pay more for sustainable food. But how much responsibility should reasonably sit with the individual consumer, and at what point does “conscious consumption” become a way of shifting responsibility away from governments and corporations?

In a green or sustainable transformation, there are three things to think about: infrastructure, equipment or technology, and human behaviour.

Our studies show that for things such as mobility, household cooling or heating and lighting, the problem is often much more about infrastructure and access to technology than behaviour. Nobody wants to stay in a dark room with a kerosene lamp. If people have access to better illumination, they will adopt it. So in many cases, the issue is not a lack of willingness.

Take my mobile phone. I like to keep it for more than 10 years rather than buying another every year because I want the utility of the phone. But if companies design products so that after a short period the software no longer works and I have to replace the device, where does the problem lie?

Consumers may be ready to use longer-lasting products, but if companies do not make them, consumers do not have that choice. I may want to walk in my city, but if there is no footpath, I do not have the infrastructure to make that choice.

Our studies suggest that, in these areas, roughly 80 to 90 per cent of the responsibility can lie with infrastructure and technology, with the remaining responsibility then coming to consumers. Dietary choices are somewhat different because food habits are connected with many social and cultural factors.

But preferences are malleable. They are not cast in stone. If people want sustainable living, where is the problem? We may not have the right pricing mechanism, the right products or the right infrastructure. Once those things are available, conscious consumption does matter. And consciousness also comes through education. We need to talk about collective living rather than competitive living, and about doing no harm to others.

When you throw waste into the atmosphere, you are doing harm to others. Education can help build the ethical and moral values that orient people towards more sustainable lifestyles.

Q: Imagine two women. One can afford organic food, an electric car, solar power and sustainably made clothes. The other buys cheaper food, uses whatever transport is available and shops fast fashion because that is what her income permits. The first may appear to be the “greener” consumer. Is that a fair way to measure environmental responsibility?

This is a very good question because the first woman, who can afford what appears to be a sustainable lifestyle, may actually not be following a sustainable lifestyle when we look at her overall consumption and emissions.

If you look at the Intergovernmental Panel on Climate Change (IPCC) assessments, we can think about human development alongside per-capita greenhouse-gas emissions.

The important point is that many countries in South Asia and Africa still need to improve human development while their average per-capita emissions remain comparatively low. Of course, there are rich and poor people everywhere, so inequalities also exist within countries.

We therefore need to speak to both groups. People with higher levels of consumption need to consider their mobility, appliances, electricity and overall lifestyles and decarbonise them. They need to reduce their emissions to create space for other people to improve their living standards.

They have to pay the climate's price. And how do you use that money? You invest it in helping people who are still developing to move directly towards cleaner alternatives instead of putting them on a dirty development pathway and trying to clean it up later.

Invest in infrastructure, technology access and training. Help households adopt cleaner cooking systems, electric mobility and efficient lighting.

Those who have not yet reached a comfortable standard of living need room to improve their wellbeing. At the same time, we need to put a price tag on those who are over-consuming climate and environmental services. Those who are not over-consuming should have some space to consume a little more.

Q: Much of the modern sustainability conversation has been shaped in wealthier economies. When those expectations travel to the Global South, where incomes, infrastructure and access can be very different, what do we misunderstand about what sustainable living actually looks like?

The first question is: what is your benchmark and where are you starting from? The sustainability conversation is very different in the Global North and the Global South.

In the Global North, people are over-consuming climate services and need to reduce their emissions faster.

For the Global South, the conversation is different. These economies need to grow to reduce inequality and provide better human development for everybody. But as they grow, why should they not adopt the most efficient technologies and the best infrastructure available?

We are in the 21st century. We know what the best available technologies are. Why should the Global South not have access to the latest technology? That should be part of the bargain with governments and investors. There also needs to be capability-building, not merely skill-building, so the Global South has the agency to bargain for the best technologies.

I do not believe in a free lunch. There is a cost everywhere. But you can make the business model affordable.

These conversations need to be context-specific. Look at people in rural areas who travel by bicycle. That is already a sustainable lifestyle. Why not make them proud of it?

Instead, we call the bicycle a "poor man's vehicle" and tell people that owning a car should be their life's goal. That is the wrong target we are setting for them.

Developing countries can grow faster and still grow in a cleaner way to get a good life. It is possible.

Q: Could making greener products cheaper create another problem? If sustainable goods become inexpensive enough for everyone to consume at the same scale we currently consume conventional goods, have we solved the environmental problem, or simply made overconsumption greener?

There is overconsumption partly because some conventional goods are very cheap and their prices do not reflect their true environmental costs. So it is not simply about making sustainable products cheaper. It is about reflecting the true cost of products and services.

If you reflect the true cost, sustainable consumption can become cheaper compared with unsustainable consumption practices. Many products are wrongly priced. That is a market distortion created by policy and vested interests.

We cannot leave political economy out of this conversation. Political economy can interfere with the market economy and distort it. Remove those distortions. Let products reflect their true cost.

The annual maintenance cost of climate service is positive, like the maintenance cost for your car or home.

Q: There is also a gender question here. Women often make a significant share of everyday household decisions around food, clothing, energy use and family consumption, while women globally do not necessarily control an equal share of household wealth. Does the push towards "responsible consumption" risk quietly placing another form of unpaid responsibility on women?

This does not apply to every woman. I have agency over what I want and control over wealth, so this is not a problem for me personally. What we are talking about is a structural issue. Some women still do not have decision-making power over wealth and income.

How was I able to break through some of those structural barriers? My education and my employment.

So your question is also about historical and structural inequality. We know that structural change takes time. Education, institutional change and changing social norms can take generations. My mother and grandmother did not enjoy everything that women like me may enjoy today.

But we can also give women meaningful alternatives now. For example, when introducing cleaner cooking technologies, give women different options and allow them to experience those alternatives. Then let them exercise their agency and decide which one they want to continue using.

For women who cannot afford the equipment themselves, programmes can help overcome the first-cost barrier by providing access to LPG, solar or electric cooking technologies. In Nepal and Bhutan, for example, programmes and policies have supported cleaner electric cooking and helped households overcome some of the initial equipment and electricity barriers.

There is a need for some handholding, while structural change continues through education, employment, income and changing social norms.

For transformative change, there cannot be a single silver bullet. We need to work on preferences, structural inequality and the historical legacy of inequality at the same time. We need to prosper without leaving anyone behind.

Q: If you were asked to redesign the green transition around one principle, that the sustainable choice should not be a luxury choice, what would have to change? Who should ultimately absorb more of the price of going greener: consumers, governments, businesses, wealthier households, wealthier countries, or some combination of them?

There is no silver bullet. There cannot be only one thing that needs to be done. Infrastructure, access to technology and corporate business models are of primary importance. They have to take the larger burden of bringing sustainable products and services into the market and investing in infrastructure.

Then comes consumer choice. For that, people need education and the right access to information. Mass media and social media can play an important role.

I think we need a people-centric, human-wellbeing-enhancing ethical principle that does not do harm to others. Then different social actors can contribute collectively.

Remember that each individual also has different identities. I am a professional when I am teaching. I am a homemaker when I am cooking. I am an investor when I invest in green bonds or dirty bonds.

Each of us has various social faces. When I make a decision, I need to ask: Am I making this decision as an investor? As a professional? As a role model? We need to discuss these things more so that people's consciousness and values can transform towards a better world.

Q: This year, Raising Women Initiative is exploring the First Daughter Agenda as a new way of thinking about women's rights. From your perspective, how do cultural norms and family expectations shape the lives of girls who carry early responsibilities, whether by birth order or circumstance?

I will give you two examples.

I have a friend whose first child is a daughter. My friend is an educated professional living in a Global North country. Her daughter helped with her younger sibling, although formal childcare was also available. That daughter has now gone on to medical school.

My own mother was also the first daughter in a family with many siblings. She used to tell us that, at that time, they could not have home help. She would study her books while rocking one of her younger brothers with her feet. But what I am saying is this: give girls education.

Whether she is the first daughter, last daughter or middle daughter, it should not matter. Family responsibility can be collective help. But historically, girls have often been regarded as caregivers while boys have not been expected to carry the same caregiving responsibilities.

I would say that this social norm has changed a lot. I see it among my students. They share family responsibilities. I have a male student who is a very good cook, so he cooks. His wife is very good at fixing furniture, so she does that. They have no problem with it. Things are changing with education and exposure.

I do not see social norms as fixed. If you look at them historically, they have changed enormously. Education changes social norms. Formal education is extremely important.

