

## JAMES GUSTAVE SPETH

### Dean and Professor, Yale School of Forestry & Environmental Studies

Since 1999, Professor Speth has been the Dean of the Yale School of Forestry and Environmental Studies where he is also a Professor in the Practice of Environmental Policy and Sustainable Practice. Yale's President Richard Levin, "Gus Speth's qualities and background equip him admirably for leadership in the School and the wider University." Dean Speth brings with him global experience from his 1993 to 1999 tenure as the Administrator of the Development Program of the United Nations (UNDP), the principal arm of the UN for the funding and coordination of technical assistance and development. Prior to this, he founded the World Resources Institute in 1982 and served as its president until January 1993. Based in Washington, D.C., WRI is a center for policy research and technical assistance on environment and development issues. Following his tenure at WRI he served as senior advisor to President-Elect Clinton's transition team, heading the group on natural resources, energy, and the environment.



Before founding WRI, Dean Speth chaired President Carter's Council on Environmental Quality, and then went on to teach environmental and constitutional law for two years as a professor at Georgetown University. From 1970 to 1977 he was senior attorney with the Natural Resources Defense Council, an organization he co-founded. Prior to NRDC, Dean Speth was law clerk to Supreme Court justice Hugo Black.

Dean Speth graduated *summa cum laude* from Yale College and attended Oxford University as a Rhodes Scholar earning a M.Litt. in economics. He holds a J.D. from Yale Law School, and recently received an honorary Doctor of Laws degree from Clark University. He is married to Cameron Speth and they have three adult children.

Dean Speth was decorated by the governments of Morocco and Senegal for his work in the United Nations and has received awards, principally for his environmental work, from the UN Environment Program, the National Wildlife Federation, the Environmental Law Institute, the Keystone Center, and the Natural Resource Council of America. In 2002, Dean Speth received the prestigious Blue Planet Prize from the Asahi Glass Foundation in honor of his contributions to global environmental conservation.

One of his latest publications, *Red Sky at Morning: America and the Crisis of the Global Environment* (New Haven, CT.: Yale University Press, 2004), has drawn many comments including one by former United States President Jimmy Carter "Gus Speth brought global environmental concerns to the world's attention nearly a quarter of a century ago. His extraordinary new book is an impassioned plea to take these issues seriously before it is too late. We owe it to our children and grandchildren to read *Red Sky at Morning* and take action while we can."

Professor Speth himself has said "never has the need been greater for a new generation of environmental leaders and for new ideas and insights. Environmental challenges are growing daily more serious and increasingly linked to subjects we once thought remote from our field. Environmental leaders must be prepared to understand the international context in which many issues arise and to integrate environmental, economic, and developmental concerns."

The Ministry of Public Utilities and the Environment  
in collaboration with  
The Cropper Foundation  
and  
The Environmental Management Authority  
Present a Public Lecture in a Distinguished Lecture Series  
By Professor James Gustave Speth  
Dean  
Yale School of Forestry & Environmental Studies

**“ The Caribbean & Climate Change: The Risks Ahead  
and the Needed Responses”**

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Central Bank Auditorium, Port of Spain, Trinidad and Tobago

Well thank you very much Angela for that overly generous introduction. That was very, very nice – and exaggerated. It is an honour to be invited to give this lecture, and I thank all of you very much for coming out and thank you especially Honourable Permanent Secretary Earl Nesbitt for setting this up and hosting us tonight.

I will try to stay on schedule. I brought my watch tonight and will ensure that I don't run over. Recently, I ran over badly when I was addressing some of my students, and I apologised for not having my watch with me. One of them said, “It's ok Dean Speth. There's a calendar on the wall behind you”. I am delighted to have our Yale students here this evening, and they will keep me honest, I am sure.

I want to talk to you tonight about the climate change issue. But before getting there I have to note that my life has been full of people from Trinidad & Tobago. I went to college with Wendell Mottley as was noted earlier, and Wendell and I have been friends ever since. Thank you Wendell.

We at Yale were honored and privileged to have Angela Cropper at Yale this past semester, as a visiting distinguished professor, and she did a wonderful job. I hope she comes back one day.

We are also honored to have as one of our top students in our doctoral programme, getting her PhD, Weslyne Ashton, who helped with Angela's course and who, as many of you know, is from your lovely country.

And I have also been blessed with other friends from Trinidad and Tobago including Carol James who worked with me in the United Nations. I'm delighted to see her here this evening also.

You have achieved a nice balance here, a balance between the world of nature and the industrial world. It is symbolized by the cheek-by-jowl relationship of the Caroni Swamp and Wildlife Bird Sanctuary, which I had the pleasure of visiting, and, then, right to its south is your massive industrial area, co-existing so far in peace and harmony. That is wonderful to see. But I will say one thing: I have heard from a number of people since I've been here that you now face an unprecedented challenge of keeping that balance. I wish you well with it. Nothing could be more important.

I want to talk with you tonight first about victims. In my half century as a more or less sentient being, I've developed quite a fondness for victims.

I grew up in South Carolina which was a racially segregated part of the world at that time. I saw the victims of racial segregation rise up and change that world. I was inspired

by that. I am sure that many of you are also inspired by what those victims did. And when I went to Law School I came to the conclusion that my calling in life was to be an environmentalist. I began to notice that it was the victims who were carrying the fight most successfully in the US. It was those local communities suffering under severe air pollution that began the fight for our clean air laws in our country. It was the outdoorsman who led the fight when they saw the fish and wildlife habitat disappearing around them.

It was the mothers of the victims of Love Canal in the US who brought the whole issue of hazardous waste dumps to the fore and got the first legislation for cleaning up those sites around the country. And it was our minority communities in Louisiana who first challenged the petrochemical pollution in that area and launched what became the Environmental Justice movement in the US.

So victims are a huge force for positive change in our world, from South Africa with the Anti-Apartheid movement, to Poland with Solidarity down to today and the many protests stemming from the real grievances that we see in our world.

Victims understand the problem because they live it, and because of that they speak with real authenticity. Victims command our sympathy because they are victims. They merit our support. Their cause is easy to understand because they demand simple justice.

In a world that needs positive change badly, victims are demanding that change, and in this sense, and I think it is a very profound sense, *victims are the hope of the world*. And what I'm here to say to you this afternoon, and it's a simple point, is that you and other inhabitants of small island developing states, you are the victims, among the first, of the most serious threat society is faced with today, bar none, and that is the threat of global climate change.

You, the victims, here are slated for an onslaught of change, including sea level rise, more severe hurricanes, changing weather patterns, disrupted ecosystems, acidifying

oceans, loss of corals, loss of fisheries. You are in the front line of this onslaught, and only the Inuit in the North share this unfortunate status with you. And you relate to them, I would say, brother to brother, sister to sister, because their loss of life and culture and territory is linked to yours: the loss of their ice is your sea level rise. It is very strange: what is happening at the poles with the loss of ice is a huge threat to life in these tropics.

As in all great causes, the cause of stopping global climate warming needs its primary victims to carry the fight. So the world needs you! You are the hope of the world.

Our world is threatened, and it needs you to assert yourselves as never before.

My country needs you. The greatest polluter of climate, both currently and cumulatively, is the US, and it is doing next to nothing about it as a nation. So you are my hope too, and the need is urgent.

All of us are tragically late in coming to grips with this issue. We have reached the point where only profound change launched without delay will head off a ruined world. And I use those words advisedly.

Beyond this question there is another question. Because you are the frontline victims, there is a provocative question I want you to think about tonight. What are you going to do about it? What are you going to do and what are other small island developing states (SIDS) going to do about it?

Let's look at some of the topics that we have had presented to us tonight in the films.

**Sea Level Rise.** We don't know for sure when we will get major sea level rise, we don't know how extensive it will be. There is a lot of uncertainty in the models and in the science. What we do know is that warming of about 2.7°C will start serious melting of Greenland. And the warming that we have already seen over Greenland has started to accelerate the glaciers flow into the oceans.

You may have heard the gentleman say that the pre-industrial concentration of CO<sub>2</sub> in the atmosphere was 280 parts per million. If we reach 550-560 ppm, the best estimate we have of the warming for the globe is 2.5 °C extra global average warming. Now the problem is that 2.5 °C of global average warming is going to translate into twice that over Greenland, maybe more. Sitting on top of Greenland is an ice field that I think is a couple of kilometers thick, and this represents 7 metres of sea level rise. 7 metres. There is 5 metres sitting on the West Antarctic ice sheet. So in a matter of decades we could set in motion a process that might be effectively irreversible, that could lead to many feet of sea level rise.

It won't happen overnight; it will unfold over a long period of time, but things are happening in the Arctic and in the Antarctic regions that we don't understand, and which were not predicted by the international scientific community just a few years ago. We are running a huge risk with the sea level rise issue, a huge risk. Even if it is a 10% risk, imagine what you would do if your livelihood, your home was subject to a 10% risk of being wiped out?

**Hurricanes:** You miss a lot of them down here in Trinidad. That's one reason you have so many boats down in the harbour – people can insure them here. But for many of the SIDS, tropical cyclones are an enormous risk, and the best evidence that we have, contradicted by some but still the best evidence is that the intensity, not the frequency but the intensity, of hurricanes has already increased significantly due to the warming that we are experiencing today. Regardless of whether that is true, if we keep warming the oceans up, it's a virtual certainty that we will increase the intensity and severity of hurricanes, which derive their energy from the sea surface temperature.

**Ocean acidification:** This is the sleeper in terms of real impacts. It is rarely discussed. It has very little to do with warming, but it has everything to do with the fact that half of the CO<sub>2</sub> we are putting in the atmosphere ends up in the oceans.

And what happens when we put CO<sub>2</sub> in water – soda-water – you get carbonic acid, and this is tying up the calcium that shellfish need to make shells, we are making the ocean more acidic, and it gets tied up in bicarbonates. The chemistry is a little complicated, but the best scientists are telling us if we keep adding CO<sub>2</sub> to the atmosphere, towards the end of this century we will have so acidified the oceans that we will be undermining corals, plankton and other shellfish life in our oceans. Amazing when you think about it. We are on track to do that.

**Coral loss:** I don't need to tell you about this. Corals are adversely affected by so many things, from overfishing to siltation, to pollution and human perturbations of them on site, mainly the divers. But now on top of all these things comes the problem of warming the oceans and protracted coral bleaching. Occasionally the corals survive, but when you have exceptionally warm water for exceptionally long periods, the bleaching is sustained and the coral life dies. And that is what happening. From a variety of causes, we have lost over 20% of corals on the planet, and another 20% is under severe risk.

More debatable is this issue which we saw in the movie 'The Day After Tomorrow', with the so-called destruction, or diminution at least, of the Gulf Stream, the thermohaline circulation. Some claim we are seeing changes already in the intensity of the Gulf Stream, and that heat which normally goes north in the Gulf Stream from the tropics, if it doesn't go north, is going to stay down here. Warming of the tropics is one of the predicted consequences of this weakening of the Gulf Stream.

As sea levels rise, and there is less rainfall in many places, we will have water supply problems from salt water intrusion, and from water shortages. There can be drought and flooding affecting agriculture and human habitation and coastlines. There could be severe impacts on fisheries, as water temperatures change, and ocean currents change, and wetlands are flooded out, and the mangroves are flooded out. All of these things will have huge effects on biodiversity.

So the bottom line in all this is that we are facing enormous, earthshaking changes unprecedented in human history – if we allow this to happen, if we allow business-as-usual to continue.

A few years ago the Intergovernmental Panel on Climate Change worked out what all this meant for SIDS, and a vulnerability index was developed for the world, so that the vulnerability of different countries could be compared on this scale. The IPCC concluded that SIDS are an extremely vulnerable group of countries. The index supports the widely held view that SIDS will be more vulnerable than any other group of countries.

That is what I meant when I said at the outset that you are primary victims of this coming onslaught.

We can head off the worst of these impacts; we do not have to suffer this fate.

We can sustain our planet and sustain the environment that we love and cherish, but we can only do it if we get busy, and get busy urgently. So what have we got to do?

Well first, **get precise with energy use**. Quit wasting energy and pricing it, dirt cheap. We have to get very, very efficient with our use of energy. We must get every last bit of economic production and energy service from every BTU.

We've got to **shift to lighter hydrocarbons**. You are blessed with a large natural gas supply, selling it to the world, selling it to my country. Well, natural gas is a lot better than coal as a fossil fuel. It produces a lot less greenhouse gas than coal does. It is a transitional fossil fuel that will help us get to the next thing we have to do, which is to get serious about **renewable energy**: there are tremendous opportunities for renewable energy.

We have got to **move from net deforestation to net afforestation** in the world. So the prescription is really pretty simple.

These things are pretty basic:

- Become more efficient
- Shift to renewable energy
- Shift to light hydrocarbons
- Stop deforestation, move to afforestation

And we know not only what we have to do, but we know where we have to do it. The big villains in this issue, the really big villains are the US, and China and increasingly India. I'm assuming that Europe and Japan are serious and will continue to be serious. They give every indication of wanting to tackle this issue and wanting to push the world into a new agreement that is more serious than the Kyoto Protocol. Meanwhile the US is dragging its feet and doing everything it can to avoid even a discussion of a negotiation of this issue. This is a great tragedy.

I want to now throw out some suggestions, which I hope you will take to your government, to your Prime Minister and which I hope you will take to other SIDS. I dreamed these things up sitting in Angela's lovely apartment this morning. Intelligent people from SIDS could dream up, with a little more time and thought, and more intelligence and information than I have, better ideas. But for what it is worth, this is what I would do.

**First**, I would organize all the SIDS in a well-funded, well-managed, well-coordinated campaign. There is strength in numbers and there is safety in numbers. You need all of the SIDS together on this. You need an **Action Campaign** from them; you need some **type of steering committee**, a leadership committee, to give effort guidance and momentum. You need some of the best people you could possible put together on a team or teams, or staff if you will, to drive this effort among the states, and you need some real money, some real financing to be sure this effort does not short-change the future. This is a 5-point plan – that is number one.

**Two**: obviously you need to develop a message and a strategy. A lot of this has to be directed at the US – to get the US sensitized and aware of what is happening here, of

what is going to happen to you, of what is going to happen to the Caribbean. People are abysmally ignorant today about these issues, and you can help awaken Americans to these issues, and people will respond. As I said at the outset, people give victims authenticity and support because their cause is fundamental and it is one of justice. You did not cause this problem; you should not have to bear the brunt of it.

What does everyone else do when they have a problem with our U.S. government? Well, they go to Washington, and they find the best firms that work these issues – that work to change public opinion, that work to change political opinion, that work to get the Prime Minister access to political leaders in Washington.

You may have difficulty in finding a PR firm because so many of them already work for the energy industry. But they are there. You must get first-rate talent working on this issue. It is a first-rate problem. It doesn't need someone going to the IPCC one week and then doing a hundred other things the next week, or going to the negotiations for the Framework Convention on Climate Change and then coming back to two weeks of work piling up on the poor bureaucrat's desk. You need first rate talent, internationally top talent, because your futures, your countries, your livelihoods, the whole ball game is at stake.

So get the best people, pay the money that you need, ask them to help. What is the strategy that is going to bring America to this problem, that is going to bring your message to the American people? Here are some things that occur to me as points to make: One is the tremendous inequity, the tremendous injustice of the devastating impacts that this region could face, the plight of your people, of your environment, the future of your children.

Another thing that I think is very important to stress is this: it is fundamentally a human rights issue, not just an environmental issue. It's a human rights issue; it's a right to life, it's the right to your culture, the right not to be devastated by something external to you.

The **third point** that has got to be made is it has been caused primarily by big countries like the US. The US alone is responsible for 30% of the greenhouse gases in the atmosphere. I don't think that people know that in the US. And then there are the costs even to the US for what is happening to you.

People love to come to the Caribbean for recreation, for tourism, maybe too many sometimes, but they love it. And it is at stake. Then there are the costs that America and others will have to pay in humanitarian aid, in developmental assistance, if all these things happen. There are also costs to democracy. People are going to tolerate governments they wouldn't traditionally tolerate if they believe those governments are going to help them with this problem one day.

In terms of strategy, there is no substitute for getting on American television, advertising on American TV. It is not cheap, but it is worth it.

Major newspaper advertisements, full-page ads, are cheap, relatively speaking, and they are effective in reaching key groups.

Maybe one day you will have a Victims' March on Washington. People from all over the world, fed up with the inaction from on the part of our national government. Maybe one day. Tomorrow?

**Four:** Remember that you have friends- you have many, many friends in this. So SIDS should reach out to these friends – bring them to your cause. Many are deeply concerned in Europe, more so than the US, so get them to your cause. Corporations are doing a tremendous amount of the damage, but there is no company that has taken more time and energy and money in alerting the public to this issue than BP. They are right here in Trinidad – use them.

**And Five:** Form an alliance of victims. There are a lot of you – the Katrina victims, the Inuit, all the other SIDS, and there will be many other victims. Those of you who know about international politics will also know you have to get the G-77 on board. We have

got to get this coalition of developing countries on your side – which may mean not being on the side of the OPEC countries, who generally oppose action on climate.

There are also SIDS that are not so ‘developing’ anymore, like Singapore. Where are they? We need Singapore; we need the Central American countries which are very similarly situated to you on many of these issues.

There are transnational institutions that can help too. I think of the churches. I really was extraordinarily impressed with the evangelical community in the US when they took a full-page ad in U.S. newspapers and started their campaign: ‘Our commitment to Jesus Christ compels us to solve the global warming problem...’

There is also the development assistance community in the UN and in the bilateral organizations. They need to put this issue up front and centre. And there are those US places like Puerto Rico and the US Virgin Islands; I think that they can be helpful in this coalition.

Think about legal actions. You will not go into court one day and clear away the problem with some instant court victory. But you can force the issue in the courts; you can bring the issue to public attention through the legal processes that are available. “There are environmental impact assessment requirements in international law; the most fundamental principle of international environmental law is that no nation can damage the environment of another nation. Somebody has got to raise the issue. And I mentioned earlier there is a human rights angle.

The Inuit are using a human rights approach to petition now.

And last but certainly not least, **set a good example**. The campaign cannot have clay feet, and you need to be doing things here. Why don’t we have a Caribbean-wide initiative to solarize the region. You could have solar hot water and heating; you could have photovoltaic cells . BP is one of the largest producers in the world for photovoltaic cells;

ask them to subsidize a Caribbean campaign. Then, there is lots of wind; wind power is cheap. You could make the Caribbean a renewable energy showcase against the wasteful use of fossil fuels and the polluting of the global environment.

The good news is that you are not alone – there are other people trying to get compelling messages out. And given what is at stake, there is no choice, and given the urgency, you really need to get this process moving now.

I know there are things going on already in the Caribbean countries, and I don't minimize that at all. But I am talking about escalating by orders of magnitude. It is so urgent – we only have a little while to take the steps that will turn this issue around.

There is no time at all to get serious. I am reminded, in conclusion, that I was just down in Memphis, Tennessee, and there is a wonderful museum there. It is a civil rights museum, in the motel where Martin Luther King, Jr. was assassinated. It is one of the most moving places I have ever visited. I was reminded when I was there and was reminded again when I was thinking about this talk, of something Dr. King said:

“We are now faced with the fact that tomorrow is today. We are confronted with the fierce urgency of *now*. In this unfolding conundrum of life and history there is such a thing as being too late. Procrastination is still the thief of time. Life often leaves us standing bare, naked and defeated with a lost opportunity. The ‘tide in the affairs of men’ does not remain at the flood; it ebbs. We may cry out desperately for time to pause in her passage, but time is deaf to every plea and rushes on. Over the bleached bones and jumbled residue of numerous civilizations are written the pathetic words: ‘Too late....’”

And that is a challenge. We must bring a profound sense of urgency to this unprecedented challenge so that we will not be too late.

Thank you.