

Paris is Done! What next for us?

Now that Paris CoP21 is over, and we have an Agreement on how to move forward internationally under the UNFCCC process, we need to take stock of what it means for us, and what we now need to focus on.

Who's 'We'? We are the South; we are the Asian – South Asian countries; we are the marginalized communities; we are the honest brokers engaged with development, equity, justice and alternatives for the last 40-50 years.

The onus is on the South

The major outcome that we have from the Paris Agreement is that the onus for global action on climate change is a responsibility of the South – especially India. The South, including India, has absolved the OECD countries and Russia of responsibility for Climate Action. The Market will determine their actions.

The onus is on non-state actors

The second reality is that the UNFCCC process has taken us thus far – from a business-as-usual expected warming of 5-6°C down to 3-3.5°C under current commitments put on the table for the period up to 2025-30. This may further come down by 0.5-1°C – at best; if at all it is not too late.

So the onus on keeping global warming down to 1.5°C i.e. another 2°C more than what is agreed upon at Paris, is on us non-state actors – communities, committed civil society, innovative business, research and academic institutions and agencies.

Domestic Equity in India

The greatest challenge is for us in India. We have been used to not having to do anything.

No compulsion on mitigation; and with wide-eyed innocence, thought that with Kyoto in place, warming would be kept below 1.5°C. Hence we could just focus on the minor adaptation needs. Technology and financial transfers were on the way!

Now that we know we are well on our way to disaster, 2°C+; and most probably 3°C+, we need to do both - mitigate, as well as adapt to severe negative impacts, and frequent, random catastrophes.

The Way Forward

While awareness of Climate Change as an issue has dramatically increased in recent years, it remains a much generalized idea of changing patterns of precipitation, increasing temperatures and the occasional disaster – flooding, landslides, storms etc. There is inadequate knowledge with the general population about specific impacts (and causes) in their different eco-systems, sectors and personal well-being.

So for starters, here is a plea for taking Climate Action down to the local and regional level. It is adapted from a presentation at a Conference in 2014, and much of it remains valid even today. We have not made much progress since; in fact, we have gone backwards since, on appropriate climate action.

[Building Consensus, Domestically and Internationally - The Way Forward](#)

Climate Education

One of the key actions that is sorely missing is Climate Education. Without it, it is difficult to generate the desired bottom-up approach, so essential to appropriate, relevant and acceptable action. There has

been a surge in formal climate change research and teaching – still nowhere near enough, and limited to small pockets of affluence, and geared towards state and business policy.

Excerpts from a response to a survey on Climate in 2011 make relevant reading even today; such has been the snail's pace at which we are moving! Being a vast country, with such a large and diverse population, we need to take this up in mission mode in order to inform grassroots level perspectives and action.

There are quite a few, relatively long-standing initiatives that can serve as templates for how to approach this mission-mode. We need to get in touch with the many more that are undoubtedly happening in pockets all across the country to enhance the spread and intensity of Climate Education – Mission Mode, from the Bottom Up!

[The State of Climate Education in India](#)

[INECC's involvement with Climate Education](#)

[Climate Change Education for Urban Indians](#)

[Redesigning environmental courses for environmental protection](#)

[Key Principles for Visual Climate Change Communication](#)

Living Religion

With increasing food and water insecurity, there is a marked increase in cultural insecurity, especially over religious identity. Religions have been eulogized as messages and revelations for peace, harmony and personal integrity and growth. And yet, they have also been used as weapons of fear, anxiety and hate.

The Climate Crisis is a context in which the core values of almost all faith-based institutions and assemblages can play a key positive role in recapturing the ecological ethos for sustainable living; for sustainable communities to emerge from the ashes of this civilisational burnt-out.

[Ecologising Religion](#)

Building Consensus, Domestically and Internationally - The Way Forward

When I was asked to speak, and I looked at the program, it was Consensus Building on the future, international negotiations and domestic actions. The first slide I made was equity, development, sustainable Climate Action and I said this is a quadruple oxymoron because different people see it differently and I just gave it up.

One of the things that bothers me, and I come from a development background and therefore I speak for development organisations which do not have much to do with international negotiations, but by some chance we got into it; and therefore when we engage in processes like this, it confuses us actually. What do we say? On what basis do we say where do we go.

So let me begin with a middle-eastern proverb, which I think is apt in the climate context and which would sort of underpin what we believe - *"it is easier for a camel to pass through an eye of a needle, than for a rich man to go to heaven."* And that says almost everything about the climate negotiations.

When we first came in touch with the whole issue of climate change in 1995, our focus was on how it impacts communities. Of course people used to laugh at us, - what are you talking about communities and climate change. Our main focus was, and is, on adaptation; mitigation happened. (We did do

the micro-hydels in the late 90s in remote adivasi villages; but it was from the perspective of energy access, especially in remote areas).

This focus of ours was informed by CBDR - Common But Differential Responsibilities. Southern countries had no responsibilities. We left analyses and action to national and international civil society. That is how we operated. So we were very happy to support our Government in the international arena and do whatever bit of adaptation and whatever else we do along with the local communities we were engaged with.

But since 2009 we have been dismayed by the shift that has taken place in India's stance. That took us by surprise; it shouldn't have. Because suddenly we found that we were operating on climate issues from a different set of priorities. That sort of put our position in jeopardy - now what do we do. E.g. I remember in Copenhagen as well as in Doha - people from India were going and confronting the Government in the Conference of the Parties and we thought that it was not right - that is not the way to go. I just want to reiterate what Jayaraman had formulated yesterday - how do you look at equity in the international context: we are firmly behind a multilateral approach, even though we fall in that in-between category; our natural inclination is to frame the discourse in the context of global equity, but our actions, engagements and pontifications as civil society is in the national and international context. So that means we place our eggs in the national context, because that is what we have available to us; we do not have anything more than the multilateral process.

I don't need to repeat what has been said earlier, but

as development organisations we have just two or three points to add.

Specific issues:

Building consensus internationally - let me focus on that first because I have not too much to add. I think the carbon budget approach has been very good for us, and being associated with the process for the last 4-5 years, it has enabled us - development organisations to understand concretely - equity, historicity and the way forward. Now India needs to adopt, take this approach on board to frame its equity concerns concretely, especially historical responsibility and the way forward to fair shares. No doubt about it.

We need to acknowledge the role of TISS, DSF and others in developing this approach along with others notably some BASIC countries and may be a couple of European countries. The Carbon Budget approach now finds a place in the IPCC. So all kudos to them. But we still wonder what stops India (and our Environment Minister was present at quite a few of these meetings), so what stops India from taking this approach on board?

But we still believe that finally there has to be a top-down approach to mitigation.

Second, is the question of allies; or rather 'questionable' allies. We had been dismayed by India's approach, I had said that, which manifested itself in the run up to Copenhagen and the capitulation at Cancun. Now, belated and misguided attempts to retrieve grounds at Durban has led India to the like-minded group and no matter what Inderjit (from the Global South) says, we perceived

In terms of specific things I like the idea of looking at equity, translating it at the national level and again translating it into - whether adaptation plans at the district level, or capacity building at regional levels, those are things we can do.

We can also try and see that we have a better transparent process - as Tejal suggests we can have a large number of options, saying if this is agreed internationally, then we do this nationally; and then even nationally to look at equity and development and adaptation, in urban and rural areas working downwards seeing the amounts of impacts are going to happen.

I also completely agree of how we don't need to bother how we are perceived.

At the ground level, there are number of things of these kind of coalition of NGOs and academics can do and bulding the knowledge and information that help us in respond in whichever way. So there are certain things within our control, which are domestic, and if we have a better understanding of equity across this room, then forming coalitions is interesting.

The second idea of having a dialogue and between NGOs and activists across the country is again workable. It may or may not influence the international negotiations but that's OK, but in the short term these are two specific things that can be done.

And as a group we should try to do so.

Rangan Banerjee, IIT, Mumbai

Response to Panel Presentation of Walter Mendoza

that there has been a dip in India's credibility; and that (loss of) credibility has its basis in what India is not doing domestically. That is the basis on which we lost ground; apart from the self-interest that we had in the nuclear deal and many other matters.

Now we firmly believe that India needs to put its eggs in the G77 and China basket; and that the special relationship with the BASIC countries could be more nuanced. But I agree that we need to move very close to the LDC and the Africa group. Our illusion that we belong to the elite dining room that is occupied by the G8 is pretentious.

Coming to domestic action I doubt there will be much hearing from the present Government which is obsessed with 100 smart cities and bullet trains. But we need to say what we have to say because – first India needs to practice what it preaches internationally, and therefore we need a top-down approach to mitigation within India; i.e. focusing on a top-down approach on urban and high consumption areas. And a bottom-up approach in adaptation considering the moving target from 350 ppm and 1.5°C to 450ppm 3-5°C, or whatever it is likely to be.

Adaptation has become critical now, much more now than it was earlier; we recognise this and we need to press this further. That is something we have been doing with the work we are doing. But an emphasis is needed here; this is not being taken seriously enough by us even among our own circles, though we pay lip-service to adaptation. Of course, it is a very difficult thing – you ask me, after being involved with adaptation for the last 18-20 years – how do you define adaptation; how do you look at the bottom-up approach; how do you look at

Growth as development ideology and developing nations have been integrated into that framework. So we are part of that club. We are part of the 'growth as development' club and you have a much higher level of discussion happens that ideology is not going to go away. So India's position is not different from the Anglo-Saxon position or anywhere. Because at the end of the day the development ideology drives the climate change debate, unless that is altered.

So what is left now and increasingly our Nation-state is not going to behave any differently, but much like the United States, of several decades ago and much more

technology support; how do you look at financial transfers. I still don't have a framework and an answer. That is something we need to build-up; and I think we have not done enough on it.

Just an aside, **bringing sustainability into the picture**, which you (TISS-DCF) have done this time is very important for us because a very narrow view through the climate change lens focuses on eco-system services and only primary occupations. So you look at agriculture and forestry; and may be live-stock management and artisanal occupations. But SDG is an opportunity to fore-front intermediary livelihoods and small and medium enterprises. Here energy access, availability and security is very important; and this is where doing something domestically becomes important.

There are two-three other issues that we need to address domestically, which is an opportunity for

seriously on that count. So the challenge is to build the adaptation capacity, the resilience of our people, the capacity to withstand the implications of climate change is what we need to do and that is where the challenge is going to be.

This also the only way the State is also going to listen. Otherwise, India is not going to stand alone; India is part of the grand alliance of nations to see that we get that growth rate of this kind. The growth rate of that kind is the ambition of everybody; and where is the question of climate change mitigation measure coming to picture, because that is against your ideology of development?

India to retrieve its image.

One, in view of the continued inaction on mitigation, we need to **vitalise disaster management and disaster risk reduction**. So while it was touched upon here, it is an opportunity for the present Government to immediately put in place something on disaster management and disaster risk reduction to retrieve its credibility, - first of all with our citizens over here! And the National Disaster Management Agency needs to be less officious and more effective and professional.

The second most urgent important issue is to look at the **Climate Action Plans**. A time-bound inclusive process; and extending the process to regional and district levels. I know it is not working at the state levels. Even the NAPCC was considered it to be a PR document; but it is now more than a PR document today. But the State Action Plans are pathetic and

This is where we are at great crossroads.

As I listen to the discussion here, it resembles the debate on poverty. The solutions suggested were exactly the same. So we have reached a solution whereby we all must get on with some form of development process that will solve our problem, and we are having the same argument with respect to climate change.

S. Parasuraman, Director TISS

Response to Panel Presentation of Walter Mendoza

that is because there is not enough emphasis from either the Centre or from all of us on the State Action Plans; and I feel that this is urgently needed, at least in mission-mode to start gaining our credibility within India, and without.

In order to have credible climate action plans we need two other things – **Climate Education and Capacity Building**. If we don't have the capacity to make the State Action Plans, then how are we going to make district action plans? I am not just talking about *aam janata*, media and popular climate education, but specifically targeting building capacities of technical, official and other people who will be able to help us to undertake these plans, because that is the need of the hour. Otherwise, how are you going to understand adaptation, how are you going to understand mitigation, technology

transfers and financial transfers in the local context?

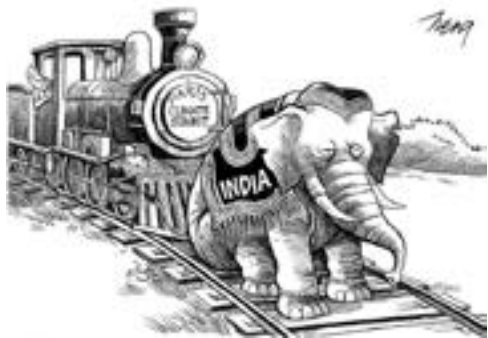
That is all I have to say at the moment.

But just to underline some suggestions from others in the panel, and say that Civil Society coalitions, like-minded grouping which Dr. Raghunandan talked about is part of the way forward. Our experience with national and international NGOs is that there is a divide between development organisations, national NGOs and international NGOs, for the simple reason that – that is what he was saying – that there is a tendency to buy the Western or developed countries needs or goals or mechanisms. That is something I have said before; and if we are able to go further and build a larger coalition and do something – probably we will be able to do things differently. We have tried time and again, right from 2009. First, we had the one of the COPs in 2001 or 2002 in India (and that is the time we entered into this arena of international negotiations). In 2009, just before Copenhagen, we tried to reach out to all from civil society who were going to Copenhagen; a few joined in. But there were national level NGOs which took the *thekedaari* for that – it fell apart. You know we have a great

thing about *thekedaari* over here. So as far as North-South civil society engagement is concerned – yes, they have a role. But then they – international NGOs – find it so difficult today with the neo-liberal governments across most OECD countries that they want us to buy trust with the West. And I think it is actually the opposite that is needed. So, when we are told that we should buy trust of the West, I think there is a problem.

So I will end up with these few points about this Workshop. We are with you; we are building up a community around this (TISS_DSJ) process and therefore we should go forward on that. We need to state a position for Lima and Paris and we need to take this to the *aam janta*; but also to keep it layered so that we undertake credible processes on the National Action Plan, Education and Capacity building.

Walter Mendoza, INECC; adapted from the presentation at the Concluding Panel at the Annual Conference at Tata Institute of Social Sciences, August 2014



Obstructionist India - The view from the North



India capitulates at Paris!

Moving forward in 2016: What more is required?

Keeping in mind the principles we advocated internationally, there needs to be a committed domestic provision of finance and technology which is additional, and provides for primacy of local planning, management and monitoring. This can take the shape of a *Deendayal Anukulan Yojana*, of which 60% is disbursed unconditionally to panchayats/wards and elected district bodies. This will not be funds from existing schemes diverted or renamed.

The balance will 40% will be made available at the macro-level to State and National bodies for Adaptation and Disaster Preparedness and Relief.

Adaptation Fund

This is the primary domestic action we need to put in place.

It will be similar in nature to the MGNREGA scheme which goes directly to the people. There can be broad guidelines as to what constitutes adaptation in areas of rural livelihoods, health of micro eco-systems including soil and water, and special climate-related health issues in a panchayat; in areas of habitat development in the face of floods, water scarcity and health issues in urban slums and low income neighbourhoods.

Disaster Preparedness and Relief

Similar additional and no-strings-attached funds will be made available to local communities to plan and manage localized disaster preparedness and response to actual events in rural and municipal areas.

Energy Access to Rural and other Marginalised Communities

The increased use of fossil fuels should be calibrated to the provision of increased energy access and availability to rural and other marginalised communities – the 40% currently without energy.

Walter Mendoza

The State of Climate Education in India

This is an excerpt from one set of responses to a Scoping Study undertaken by The Asia South Pacific Association for Basic and Adult Education (ASPBAE) in 2010-11.

Walter Mendoza was one of the respondents. Not much has changed since then; quite a few sections are still quite relevant today.

A. Views on Initiatives on Climate Change and Environmental Concerns and Needs

1. What do you believe are the urgent/serious environmental issues/problems in your country?

the impacts of:

large projects: SEZs (special economic zones); infrastructure development especially highways, power plants – superthermal, large hydro and nuclear

urban development - private transport, gated communities & townships, tourism: coastal, river/lake side, forest, and mountains

mining, logging, and creation of water bodies for urban, industrial use

industrial and urban pollution: waste management, toxic effluents

severe and erratic precipitation, high temperatures, and sea-level rise on dryland farmers, urban slum dwellers, forest dwellers, coastal and mountain communities.

2. Do you believe that climate change is an important environmental issue today? Why?

Climate Change is an important environment issue at various levels:

for local communities, especially in a country like India, where more than 75% of the population live on the edge of or within poverty,

slight changes in health, income have very great impacts, short term as well as long term;

a disaster hits them even harder, and pushes them into long-term misery;

at the regional level, already migration is taking place due to sea-level rise, and severe distress relating to water;

at the international level, the very existence of the human and other living species is at high risk.

Climate Change is not a separate issue from the general environmental issues that affect us; it is the epitome of the serious problems we are creating with the development paradigm that we are pursuing, relentlessly, and exclusively for a small proportion of the earth's inhabitants for the last 200-300 years.

But there is a significant difference – most environmental issues, even on a large scale, are the result of specific events or processes that can be dealt with locally; climate change is an issue that is generic to the very development path we have chosen; its impacts, though, as is usually the case, are felt outside the spaces that creates them, it can envelope us all.

The scale at which it is already being felt impact the poor, who are least able to cope with it – across the globe: whether small island states, coastal and forest communities across the world, the urban poor, etc.

As it is, there is a water and energy stress, a general habitation stress, for these communities; climate change increases their vulnerability and destroys their livelihoods.

3. Describe what are the major responses of various stakeholders (e.g., government, non-government, academe, communities, etc.) on climate change and environmental issues?

and

4. What are your comments and observations regarding how climate change and environmental issues are being addressed by various stakeholders? Who are being affected by these initiatives and in what ways?

The major response from Government is from the Central government; its main preoccupation is the national interest in the ongoing UNFCCC negotiations. The NAPCC is a hollow document, that it is forced to strengthen and make substantive, because of the critical reflections, analysis and advocacy from civil society organisations and concerned researchers and technologists.

Some State Governments are going through the motions of making State Action Plans; these are mostly hurried, muddled documents created by departmental bureaucrats, and lack integrity.

Civil Society was at the cutting edge of radical

thinking on equity in the international negotiations; not many grassroots or development agencies saw the implications or significance of the climate issue until the early part of this decade, when the impacts were beginning to be felt, and trends could be identified, and so eminently highlighted by the AR4 of the IPCC. That Europe, Australia and the Americas began to be affected helped raise awareness that this was something new, and more menacing than anything else that came before it.

Development organizations have now taken the lead to bring the equity and justice issues involved in climate change to the fore. Adaptation strategies, much of which is a vindication of the structural transformation perspective of some very forward looking civil society agencies and mass organisations, has come into salience. But it is still in a nascent stage.

Indian Academia has been strongly represented at the IPCC and related processes. At the regional and local level, it does not have strong bonds with those engaged with social problems and its preoccupations are more policy issues framed by government and statutory bodies.

Communities have always been keen observers of their condition and environment; the slow, but inexorable changes wrought into the natural cycles and the resource base has been a ground for extensive battles, mainly protecting their livelihoods, resources and way of life; but also understanding in some ways that the younger generations have not the same perspective and attitude to their traditional ways.

5. Which of these initiatives/responses do you advocate for? Why?

Each of these initiatives and responses are important, and need to be strengthened, made more substantive, if we are to tackle this problem; whether the NAPCC, State plans, academe being more involved at the local and regional level and with civil society and communities.

Governments are by no means necessarily innovative and responsive; they are inherently conservative and beholden to elite interests – corporate, business, trade, ... Urban elites are protecting their lifestyles and control over resources; even the aware are helpless in their carbon addiction.

Hence the push and shove has to come from below. Only an innovative, forceful bottom-up approach of communities affected and impacted, which demand a fair share, and demonstrate equitable and sustainable social and political enterprises can have a lasting impact on current fossilized, in more ways than one, thinking. Anything else is mere tinkering our way to naïve oblivion.

6. What other responses on climate change do you believe should be included in your country's range of responses? Who should be doing these? What do you believe will be the practical and strategic importance and gains of your proposed responses to those who are most affected by climate change?

A democratization of the debate and action on climate change is the only way out – people's voices in policy choices.

Civil society organizations, researchers and scientists, and innovators and enlightened businessmen (and women) need to be grounded with the inclusion of the marginalized in the debate and actions on environment and climate. Much of the externalities of projects and capture of resources will be taken care of in such a sustained process.

Whether mitigation or adaptation, and an integration of the two intertwined aspects, the inclusion of grassroots understanding of energy, resources, production, consumption and lifestyle by civil society and academe; by government and business will be the most sustainable response to this problem.

B. Views on Capacity Building Efforts on Climate Change and Environmental Concerns

1. Who are currently involved in capacity building on climate change and environmental concerns in your country? What kinds of capacity building assistance do they provide? Who are their target audience?

and

2. What can you say about the capacity building initiatives of these groups?

There are many dispersed initiatives relating to sustainable agriculture, fisheries, forestry and water management, including issues of access to and control of resources; there are also many initiatives to contextualize the impacts of large projects within the larger development and climate change paradigm; civil society and researchers analysts have joined hands together on this for years, and have now given a climate perspective to this work.

These focus on farmers, labourers, forest, coastal and slum communities.

This is now moving to the realm of energy, esp power generation and distribution, and to a limited extent on mobility and transportation. While there are many innovations in buildings and constructions, there is no concerted movement to integrate grassroots experience with these innovations on a large scale.

Government efforts, and even the extensive agricultural extension networks and forestry / fisheries structures, still focus on the old paradigm, while paying lip service to the sustainability mantra. This is typified by the term progressive farmers.

Trade associations relating to construction and buildings are also stuck in a rut. The conventional is still understood to be the modern concrete, glass and metal construction. Traditions and innovations in stone, mud, brick, thatch and other local materials are isolated experiments, or are so exclusive, as to be out of general reach.

There have been isolated attempts to reach out to bureaucrats, people's representatives, and political parties in general. But that is mainly done by advocacy groups, especially international NGOs, in the course of lobbying and policy initiatives

Reaching out to urban youth, professionals and middle-class citizens is frustrating, and difficult – it is easier to talk about changing bulbs, and using less bath water, or even car-pooling! That's as far as it goes.

I cannot make a list for climate and environment issues – it will also be incomplete; probably such a list,

and the quality of their work, should be the follow-through for this exercise.

3. What have these capacity building initiatives achieved so far in terms of the following:

The common answer to each of these questions is – Limited.

For a large country, with a huge population, sub-continental in nature, which did not concern itself with Climate Impacts until very recently; and did not need to take mitigative steps, also until very recently; we have woken up late, and the task is gargantuan in nature.

a) addressing climate change and environmental concerns in your country;

there are too few initiatives in the country, both on general environmental concerns or addressing climate change at the country level.

bringing the equity issue in favour of poorer countries is a significant achievement in climate change.

b) building awareness of communities;

on general environmental issues, they are widespread;

on climate change, there are very few that focus on this – INECC is one of the few examples.

c) helping communities address climate change and environmental issues?

on direct concern for loss of resources and livelihoods, with specific affected communities;

on health impacts, very limited.

there have been significant achievements relating to general environmental concerns – understanding environmental impact assessments, process for clearances, pollution issues, impacts of large projects, especially dams; not widespread, but significant victories.

on climate concerns it is even more limited. There is general awareness through the media, but nuanced understanding of climate issues remains a problem

d) Policy advocacy in your country and globally

While there is a long history of policy advocacy in the country, on climate change this has been limited to international negotiations bringing equity issues to the fore at the very start of the UNFCCC process. The numbers did not change significantly until very recently; and this space is mostly occupied by international agencies, including development resource agencies.

Local and regional efforts are very few.

e) Strengthening the network on climate change in your country.

very few initiatives on this – there is one of international NGOs (CANSAs), which has a few token national NGOs, but there is no significant attempt at extending the outreach of their networking;

there is another of grassroots NGOs and associated

individuals (INECC); this has mainly been relating to local communities in eco-systems; it is now reaching out nationally to fill a vacuum.

and then there are the anarchic (in a good sense), non-national networks, but with limited presence, linked (appropriately), with more generic development, trade and justice issues.

Networking these days is a very proprietary enterprise – financial resource agencies, and eminent individuals, are attempting to build network capacities, with limited success, as these are closed, and strictly speaking do not network.

4. What are the major problems or areas for improvement in the capacity building efforts on climate change and environmental concerns in your country?

There is a need for strategic analysis and focused range of climate education and capacity building in the country;

I do not see anyone doing this. It is usually an add-on, sporadic exercise, to one's main engagement.

There is just one institution which is devoted to climate and environment education in the country

– it is promoted by the government, which is an added limitation to some extent.

There is one environment research and dissemination institution that pioneered the equity and justice in the international perspective, and has a popular environment monthly.

The rest are small localized efforts that promote awareness, or support local action on environmental issues.

Even I do workshops and create education materials sporadically, and in limited geographical spread.

More materials in local languages, and processes focusing on specific areas – water, energy, forests, agriculture;

focusing on linking local researchers and scientists to community practices, to build on them;

linking local researchers and scientists along with community to local and regional policy makers; and linking researchers and scientists with civil society and community in a rigorous engagement on climate policy.

5. What do you think are the gaps in capacity building on climate change and environmental concerns?

With a large country like ours, it is too much to expect a successful country level initiative or institution to function effectively. If democratizing awareness, understanding, and action on climate change is the key, this has to be a grassroots based networked activity, actually multiple networks networking. The institutional implications of such a process have not been successfully worked out so far, even outside of environmental issues.

We need to link the climate issue to general issues of environment, livelihoods and lifestyles;

climate is a standalone issue when one is creating

awareness, or dealing with specific policies, esp mitigation; but adaptation needs a different approach.

There is also a gap in understanding the local manifestations and trends, which are not often distinguishable from local or more general factors.

Finally, there is a big gap in dealing with the urban situation –

the capacity to translate climate awareness into climate action on structural issues like transportation, construction, power, and water; health – especially of the urban poor, recreation – spaces and infrastructure, events, tourism etc.

C. Future Perspectives

1. What future issues on climate change and environment do you think should be addressed in the environmental movement in your country and globally?

Urbanisation and migration are not being dealt with currently. Both issues are dealt with through a focus on specific manifestations – either as sectors: transport, construction, or on specific locations: Sunderbans, Bangladesh, Pacific Islands. National and international demographics need to be looked at in the context of climate change.

Urban slums receive scant attention – floods, drought, heat waves, changing disease vectors affect these communities, exacerbated by the very living conditions, including issues of land tenure.

INECC's involvement with Climate Education

INECC has since a long time recognized the urgency to address the issue of 'Climate Justice' at the grassroots. The initial idea to bring in discussion on Climate Justice and Sustainable Development with the ecosystem communities and youth groups gradually metamorphosed into a process that we understand as 'Education in a Climate Changing World'.

INECC and partners since have been involved with the Climate Education process with diverse stakeholders viz:

- Formal colleges,
- Childrens' college ,
- Formal schools,
- Ashram schools,
- Farmers groups,
- Fisherfolk,
- Quarry workers
- Environmental lawyers
- Print and electronic media
- Local governance officials
- Other ecosystem communities

Our engagements with the different groups have followed diverse approaches with different strategies. The Climate Education process has covered 9 states, 3966 males and 3962 females.

Over the past 3 years, our understanding on Climate Education has also been rounding up .We have come to see the value of Climate education from an overarching long term community resilience

perspective. For example, we see great value in a pragmatic field Climate education process with the young sarpanches (in a position of power) who manifest enormous potential to contribute to Climate proof village sustainable development plans as much as education on resilient crops and crop mixes.

INECC has also played a vital role in developing formal school and college curriculum for different learning groups in the rural and urban areas. This process has got members of the core INECC team to undertake sessions in training workshops and other formal institutional spaces like Symbiosis, Pune and St. Andrews College, Mumbai.

However, we have faced enormous challenges in designing templates for imparting climate education to the diverse group that it relates to across ecosystems. After several trials we have now been able to develop and design 'several gimmicky tools' which have a potential for a vibrant discussion on Climate Change with a larger and diverse outreach. Our engagements point towards one key area i.e. the need to educate teachers at different levels to find a value in climate literacy across formal institutions and spaces.



The platform 'Yuva Drishti, created to engage youth and activists on climate change from all across the country has provided a meaningful platform for deliberation, reflection and action on the climate agenda. This space has served as a very vibrant opportunity to engage on contemporary issues Climate ethics, politics and meaningful action. e.g. post a workshop in Shillong ,a group of interested youth took leadership in scientifically studying the local waste management problem in collaboration with the local government and came up with a local strategy to address the problem from a peoples' perspective. In yet another instance, youth groups have taken to building in water consciousness with a water audit of the locality to contain water leakage and loss.

The interactions with the media from smaller towns and cities helped us understand the challenges in climate reporting in mainstream media as well as in alternate media. This has given us direction to empower local community reporters and community radio as very relevant tools in delivering community based Climate talks. The one case of media workshop in Tamil Nadu pointed towards the potential of the media in reaching out to people, influence perceptions, and leverage support where a leading bank in Ramnagar, came forward and pledged support for solar lighting systems and resources towards addressing issues of the coastal communities impacted by Climate Change.

With the experience that INECC has gathered over the years, it is now looking to create a compilation for

others to learn, practice and enrich.

So, whilst the recent focus has been designing curricula for diverse groups, the added dimension in the next three years will be documentation and compilation of INECC's experience in Climate Education across ecosystems; development of a programme for Training of Trainers in Andhra Pradesh and Maharashtra; and exploring Climate Education with some faith-based groups.

Climate Change Education for Urban Indians

'Climate change' is no longer an unknown phenomenon to urban educated Indians. Children learn about it in school, and with a number of anomalous weather events experienced by India over the last 3-4 years, the urban adults have read articles outlining the science as well as the impacts of climate change. The politics of climate change has only recently started finding space in the mainstream media, but most people are at least vaguely aware of UNFCCC, Kyoto agreement and now, Paris agreement. What is however missing is the linking of all of this with our day to day lives.

I designed and taught a course which I titled 'Living With Climate Change' in 2009 to undergraduate students of Symbiosis Centre for Liberal Arts. SCLA offers an opportunity to complete a Diploma in Liberal Arts, to students who are already pursuing

either B.A. or B.Com. degree. The Diploma requires the students to complete 6 courses of interdisciplinary nature, which are taught in an interactive manner, and the assessment is based on completing various assignments and projects rather than a 'memory test'.

One of the assignments that I had given to the students was to estimate their own carbon footprint by looking at their household electricity consumption, their daily travel related energy consumption, and other indirect emissions caused by their daily habits. To enable them to do the calculation, I came up with

some simple equations through literature survey, and put together a small Personal Carbon Footprint Calculator. The students were supposed to put their own data in the calculation tables, and interpret the output numbers. They had to make a presentation in class based on the whole exercise.

discuss with the group their conclusions. The group comes up with suggestions for each other to reduce their carbon footprint.

The total time of the workshop is about 3-4 hours, and the ideal number of participants is about 10-15. However, sometimes for logistical reasons, I have conducted the workshop for as many as 40 persons.

The general feedback from the participants at the end of the workshop is that it gives them a better perspective of the links between a lot of disjointed pieces of information on climate change that have come their way through media. This is in line with my objective of designing the workshop.

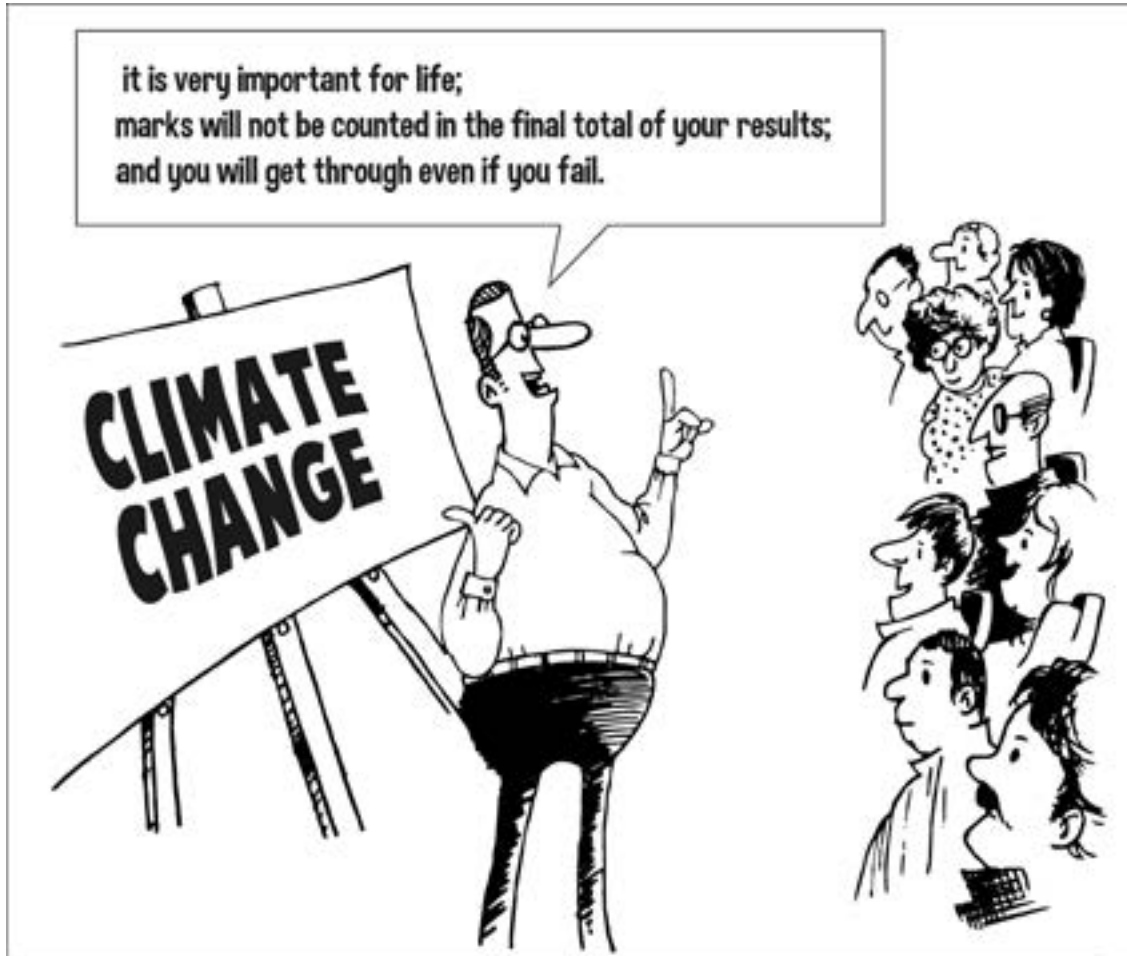
Although I have been conducting these workshops since 2010, due to time and space constraints, the activity is rather infrequent. However, in the last 2-3 years a number of workshops have been conducted by invitation - for employees of companies, or for members of environmental NGOs, student groups, etc. I have not maintained a record, but I estimate that about 2000 persons have been reached since 2010. These people are professionals, business owners, social activists, spiritual group members, teachers and academics, homemakers and students. The youngest members to participate were high school students, and the oldest members have been in their late 70s. The education levels have varied from high school to graduates and post graduates of various streams, engineers, architects, and a few Ph.D.s

So far the workshops have all been conducted only

This assignment was given somewhere in the middle of the course. The students had been interested in the course content, but had not got emotionally involved or stirred. I realised that they really enjoyed doing this exercise and their self analysis of their own carbon footprint pattern was very honest. Some of them seriously started questioning their own lifestyle choices. The reality of climate change and its connection with their own 'living' really struck home and the overall level of interaction in the classroom went noticeably higher after this exercise. This experience led me to think that perhaps I can design a workshop around the personal carbon footprint calculator aimed at the larger urban population to bring home the reality of climate change to them. Thus was born the Samuchit Lifestyle Workshop.

The workshop starts off with an overview of the understanding of climate change and the global nature of its impacts. In the process it also briefly gives a review of the politics around climate change. In the second part, the discussion is focused on India in the context of the impacts felt in different parts of the country, and how these are different for the urban and rural, rich and poor, etc. This component also talks about the Indian contribution to the global climate change, its sources, and its urban-rural split.

In the third part the participants use the MS Excel based Samuchit Personal Carbon Footprint Calculator to calculate their own personal carbon footprint, and



Art: A. Muralidharan

in a few cities in Western Maharashtra.

I tried to keep the discussion/conversation going by adding all the participants to a google group for a couple of years, and then switched to a facebook group. The groups are not totally dead, and do get some posts from a few participants now and then about specific lifestyle changes they attempted, or any other related event that they participated in or initiated in their communities, etc. However, the discussion groups have not become the vibrant and continued exchange of ideas, thoughts, information, etc., that I envisaged while creating the groups. Perhaps if there was a dedicated person driving the whole process, the outcome may have been different.

This experience however does prove that there is a need for such workshops, discussion meetings, etc., which help urban Indians 'connect the dots' between the information that they read, watch, or net surf. This helps them see the disconnect between our government's high moral stand on how we are not responsible for climate change, while pursuing ever aggressively the same policies that lead the developed countries to be the worst polluters. It also brings home to them the double standards followed by themselves in their own daily lives and lifestyle choices. I believe that these two important self realisations will go a long way in shaping an informed, thoughtful, and compassionate public opinion on climate change mitigation and adaptation. I would be happy to conduct a trainers' training so that more people can design and offer the workshops in their own geographies, reaching out to more people.

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Redesigning environmental courses for environmental protection

We cannot wait for the Government to solve all environmental problems. Government takes decisions at the policy level. Often we may even sense a lack of commitment on its part. But ultimately it is we, the citizens, who have to put the policies into practice. And for that matter every individual action counts. For example, in the recently concluded COP21 meeting held at Paris, it was reiterated that countries will continue pursuing efforts to limit the temperature increase to 1.5°C. Just because countries have agreed does not mean that temperature will automatically be controlled. Everybody has to contribute to see it happen – individuals, institutions, industries, etc. There is no short-cut to achieve it. It has to be a sustained effort by all stakeholders. The most convenient solution often thought of to tackle environmental problems is to bring in the role of judiciary. But we know that laws or imposition of penalties can never be a long-term solution to our environmental problems. Because there will be people who will always get away by dodging, by resorting to fraudulent practices or by paying the penalties or worse still, by evading law, especially those who are rich and powerful.

We might have degrees in environmental science or have the best research publications in our names, or have read all such publications. But if we cannot put them into practice what we know, such degrees, papers or knowledge make little sense. Neither teaching environmental science in schools and colleges will ever be a fool-proof solution. It

is neither our improved economic condition nor our increased knowledge about the environment that is going to contribute in restoring the environment.

Some of the 'saviours' of our environment like Sundarlal Bahuguna, Saalumarada Thimmakka, Prajapati Mansukhbhai Raghavjibhai, Jadav Payeng, Rajendra Singh, the late Kallen Pokkudan are neither wealthy nor have the 'right' environmental science education nor do they have the best international publications in their name. All they have is the right environmental attitude – concern and the passion to take care of the environment they live in and the community they belong to.

Therefore, the need of the hour is to relook and redesign all environmental courses, both for students and teachers, so that they bring about attitudinal change amongst the students towards the environment and at the same time provide them with the necessary skills to be able to contribute effectively, besides imparting environmental knowledge. Our education need to take us from 'knowing' about the environment to the level of 'doing' for the environment. These aspects must form the basis for all environment-related courses being offered throughout the country, irrespective of the stage of education. All concerned stakeholders need to seriously consider to move in this direction if we are sincerely committed to make some impact in our efforts to protect the environment through the medium of education.

Chong Shimray, NCERT

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Local Initiatives on Climate Education

The Green Ambassadors network, a 6600+ strong network of children promoted by CeFHA, is now a registered Society under the Andhra Pradesh Societies Registration Act, 2001 with the name "Green Ambassadors Collective on Climate Change". Through this formal registered body the Green Ambassadors plan to raise funds and take up projects on Climate Change.

They plan to expand and bring more children from 13 districts of Andhra Pradesh into their network and take the message of Child Rights, Ecological Child Rights and Climate Change to every corner of the country.



A cycle yatra educating and building awareness on Climate Change issues among local communities by Green Ambassadors.

Key Principles for Visual Climate Change Communication

Every day, thousands of images of climate change are shared around the world. But while research on the verbal and written communication of climate change has proliferated, our understanding of how people interpret visual images of climate change is limited to a much smaller number of academic

studies, which do not provide much in the way of practical guidance for communicators. As a result, the iconography of climate change has remained relatively static.

This report (you can download it at <http://climateoutreach.org/resources/visual-climate-change-communication/>), produced by Climate Outreach, Global Call for Climate Action and UMass Amherst, summarises the research underpinning the Climate Visuals website (climatevisuals.org) and presents the key findings so that practitioners can take an evidencebased approach to visual communication. The imagery used to communicate climate change can and should be more diverse than polar bears and melting ice. Climate Visuals takes the first steps towards helping communicators tell a better visual story about climate change. Some key tips for better Climate Communication:

1. Show 'real people' not staged photoops: person expressing an identifiable emotion is powerful. But our discussion groups favoured 'authentic' images over staged photographs, which they saw as gimmicky or even manipulative. Politicians –

notoriously low on credibility and authenticity – attracted some of the lowest scores (in all three nations) in our survey.

2. Tell new stories: Images that participants could quickly and easily understand – such as smokestacks, deforestation, and polar bears on melting ice – tended to be positively rated in our onlinesurvey (which captured rapid responses to images, rather than deeper debate). Familiar, 'classic' images may be especially useful for audiences with limited knowledge or interest in climate change, but they also prompted cynicism and fatigue in our discussion groups. They are effective ways of communicating to an audience that 'this story is about climate change'. But is it a story they want to hear? Less familiar (and more thought provoking) images can help tell a new story about climate change, and remake the visual representation of climate change in the public mind.

3. Show climate causes at scale: We found that people do not necessarily understand the links between climate change and their daily lives. Individual 'causes' of climate change (such as meateating) may not be recognised as such, and if they are, may provoke defensive reactions. If communicating the links between 'problematic' behaviours and climate change, it is best to show these behaviours at scale – e.g. a congested highway, rather than a single driver.

4. Climate impacts are emotionally powerful: Survey participants in all three nations were moved more by climate impacts – e.g. floods, and the destruction wrought by extreme weather – than by 'causes' or 'solutions'. Images of climate impacts can prompt a desire to respond, but because they are emotionally powerful, they can also be

overwhelming. Coupling images of climate impacts with a concrete behavioural 'action' for people to take can help overcome this.

5. Show local (but serious) climate impacts: When images of localised climate impacts show an individual person or group of people, with identifiable emotions, they are likely to be most powerful. But there is a balance to be struck (as in verbal and written communication) between localising climatechange (so that people realise the issue is relevant to them) and trivialising the issue (by not making clear enough links to the bigger picture).

6. Be very careful with protest imagery: Images depicting protests (or protesters) attracted widespread cynicism and some of the lowest ratings in our survey. In our discussion groups, images of (what people described as) 'typical environmentalists' only really resonated with the small number of people who already considered themselves as activists and campaigners. Most people do not feel an affinity with climate change protesters, so images of protests may reinforce the idea that climate change is for 'them' rather than 'us'. Protest images involving people directly affected by climate impacts were seen as more authentic and therefore more compelling.

7. Understand your audience: Unsurprisingly, levels of concern/scepticism about climate change determined how people reacted to the images we tested. But other differences emerged too – images of 'distant' climate impacts produced much flatter emotional responses among those on the political right. Images depicting 'solutions' to climate change generated mostly positive emotions – for those on the political right, as well as those on the left.



Linking the plight of identifiable individuals with large-scale climate destruction was emotionally powerful. The emotion on the firefighters' face tells the story of a forest fire through an individual's struggle.

image source: www.climatevisuals.org

Ecologising Religion

Priests and bishops, rabbis, monks, gurus, spiritual teachers, religious leaders of all and each one of the religions and traditions influence the minds and attitudes of those they lead. They are millions around the world, with billions of followers. They are heard, their voices are respected. Religions transmit values of behavior from generation to generation; they codify ethical principles and get the voluntary compliance of their followers. They form the worldview and shape individual and group imaginations; they influence eating habits and consumption in general as well as personal life and professional actions. In contemporary societies, various sources influence people's consciousness: from the mass media, with their consumerist appeals to schools, social organizations, families, workplaces and religions. Religions are anthropological facts that generate intense individual and social energy. On the one hand, they can produce intolerant fundamentalist fanatics. On the other hand, they can be privileged vehicles for the spread of environmental awareness.

Ken Wilber notes in his book *Integral Spirituality: A Startling New Role for Religion in the Modern and Postmodern World* (2007) that consciousness manifests itself in various stages: archaic, mythical, magical, and rational. Religions recognize these various stages of consciousness and do not exclude them. They differ from science, which is rational and discards the children's versions of knowledge. The rational consciousness of the modern and postmodern era rejects beliefs and myths and leaves no room for them. In Ken Wilber's view, this leads to reactions like those of terrorists and fundamentalist militants. Each of these stages of consciousness is similar to a station on the way. People park in one

of them before moving on to the next. "The first stations - archaic to magic and even mythical - involve stages like those that humanity experienced in its early days of life, in childhood and adolescence. He claims that religion "is the only institution allowed to sanction stages that humanity has faced in its early days, now encoded in their versions of the mythical level of their spiritual message." He says religion gives legitimacy to the myths created in the past and which are significant to nearly 70% of the world population who live in these magical or mythical stages. He notes that religion acts as a conveyor belt from one stage of consciousness to another. Ken Wilber writes that "as soon as possible spiritual traditions begin to offer internships and higher states sooner religion may assume its new role in the modern and postmodern world: the role of conveyor belt to mankind in general".

Thinkers and scientists recognize the potential of the spiritual traditions to contribute to the formation of ecological awareness. Says James Lovelock in *Gaia's Revenge* (2006) that "My desire has long been that religions and secular humanists turn to the concept of Gaia and recognize that rights and human needs are not enough. Religions could accept the earth as part of God's creation, protecting it from profanation". However Lovelock points to the limitations of religions and note that "The founders of the great religions of Judaism, Christianity, Islam, Hinduism and Buddhism have lived in times when we were far less numerous and lived in a way that not burdened the earth." He says that "Our religions have not given us the rules and guidelines for our relationship with Gaia. The humanist concept of sustainable development and the Christian concept of direction are tainted by an unconscious arrogance". He concludes that we do not have the knowledge or

the ability to deal with this relationship.

Some traditions understand the human species as part of the great web of life, a species that is dependent on the survival of the animal and plant worlds. Thus, they can help to disseminate environmental awareness. Religions can offer its practitioners the experience of contemplative and meditative states of consciousness and thus help them to ascend to broader stages of awareness. The transmission of messages and values through spiritual traditions can be a relevant part of the ecological learning. In various religions, such communication is made through images, myths and stories, in languages both strong and attractive, which spread key information for the self-sustaining survival. The iconographic and pictorial traditions with strong visual languages, which developed in ancient civilizations, reached this totality between form and content, leading to ecological information encoded in religious myths.

The present stage of the civilization we live in requires post-materialist values so that our species can survive. Religions and spiritual traditions, if ecologised, could contribute to the awareness and to ecological practices. The Encyclical of Pope Francisco in 2015 is a movement towards ecologising Catholicism. It would be good if all the spiritual traditions became ecological. Ecologising religions may be a relevant way to a meaningful transformation of human consciousness. If they propose changes in values, lifestyles and consumption patterns, they may help to deal with climate change and environmental collapse.

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