

Eco-Ethic Newsletter, 01 Oct 2001

Success ?

Governments ready to ratify Kyoto Protocol

"After several years of tough negotiation, the institutions and detailed procedures of the Kyoto Protocol are now in place. The next step is to test their effectiveness in overseeing the five-percent cut in greenhouse gas emissions by developed countries over the next decade," said Michael Zammit Cutajar, the Executive Secretary to the UN Climate Change Convention.

"We have also made important progress on strengthening the flow of financial and technological support to developing countries so that they can move towards a sustainable energy future".

Failure ?

Kyoto *is* the Key - Now Use It!

"As climate change bites harder, leaders of the future will look back on the Marrakech meeting as a lost opportunity and realise that the participants of *COPT* should have done more to tackle climate change," said Bill Hare, *Greenpeace* Climate Policy Director.

"Emission reductions in the order of 80% are needed if dangerous climate change is to be prevented.

"We still have a long, long way to go. This is just the beginning."

COP 7 at Marrakech

November 2001- a defining moment in the climate change international negotiation process - the final print was at last finalised, leaving only the last phase - ratification by national governments and legislatures - to be gone through.

It has been a tortuous process marked initially by wrangling over culpability, responsibility and commitment. The first phase COP1 - COP3, 1993-1997, was devoted to intense negotiations in assigning blame and defining responsibilities. Issues of equity, lagging development and poverty impinging on the rights to emissions dominated this phase. It was also a period when the UNFCCC ... honed its data-bases and acquired some standardised, acceptable methods of measuring emissions and remissions.

*The 2nd phase began with COP4 - the Kyoto Meet. Responsibilities were accepted and commitments made. A perspective on equity was finalised and developed countries took responsibility for remission of emissions. Translating these commitments into an agenda for action took the next 3 years COPs 5-7. Obviously, countries tried to develop mechanisms that were most suited to their own interests and capabilities. The decision of the US to opt out of the Kyoto Protocol set the cat among the pigeons. Canada, Australia, Japan and Russia now took the opportunity to move centre-stage and demand their pound of flesh at Bonn - and they got it at Marrakech. Much of this has been covered in previous issues of **eco-ethic**.*

In this issue we bring to you the highlights of the whole process - the problem, the issues, the commitments.

NGOs have played a significant role in the COP process. They supported the stance of the developing countries and brought the issues of equity and justice to the fore, not just as rhetoric and pious statements, but by solid research and rigorous analysis. Conventions and lobbyists for international business and commerce also played their role. We bring you

some insights into these processes in this issue.

But, in the final analysis, climate change is continuing, and the globe continues to heat up. October 2001 was the hottest October in the last 100 years. And the average temperature for 23 of the last 25 years have been the warmest on record.

Thus INECC realises that while the struggle for justice and equity must be carried out in the international arena, developing countries cannot just imitate the path of development that western countries have adopted and are propagating. We, in the developing countries, need to address our development and growth issues in a manner that does not suicidally affect the world at large - that is "ourselves". We are the world. We are more than 2/3 of the world's population.

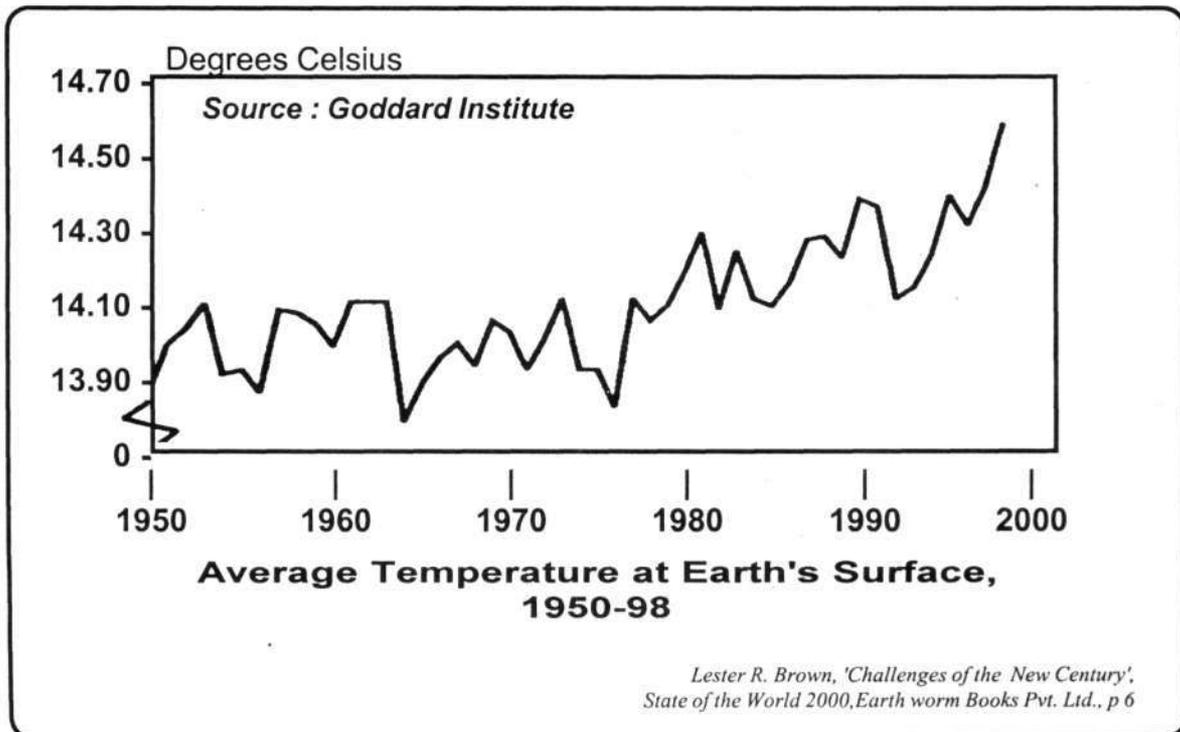
This is the part of the perspective that INECC has realised for itself. While international treaties have accepted the notion of equity and excused any emissions accruing as of now from developing nations, we have a responsibility to examine what paths we choose for development. First of all, the same principles of equity must be applied within the Indian national context. Secondly, the practice of sustainability cannot wait until we exacerbate the problem by achieving the wasteful consumption levels of the local and global elite for all of the world's population. We also need to explore what we mean by sustainability - sustainability of US consumption levels for itself involves exploitation and brutalisation of the rest of the world. Do we want that? Can we have that? Is that the sustainability that we aim for?

INECC sees the need to explore sustainable development in the local context, among the vast majority of populations. A review meeting was organised in September 2001, at which such a focus was internalised and practices that explored this perspective were put forward. The position paper that resulted is included in this issue.

Climate Change Is Real

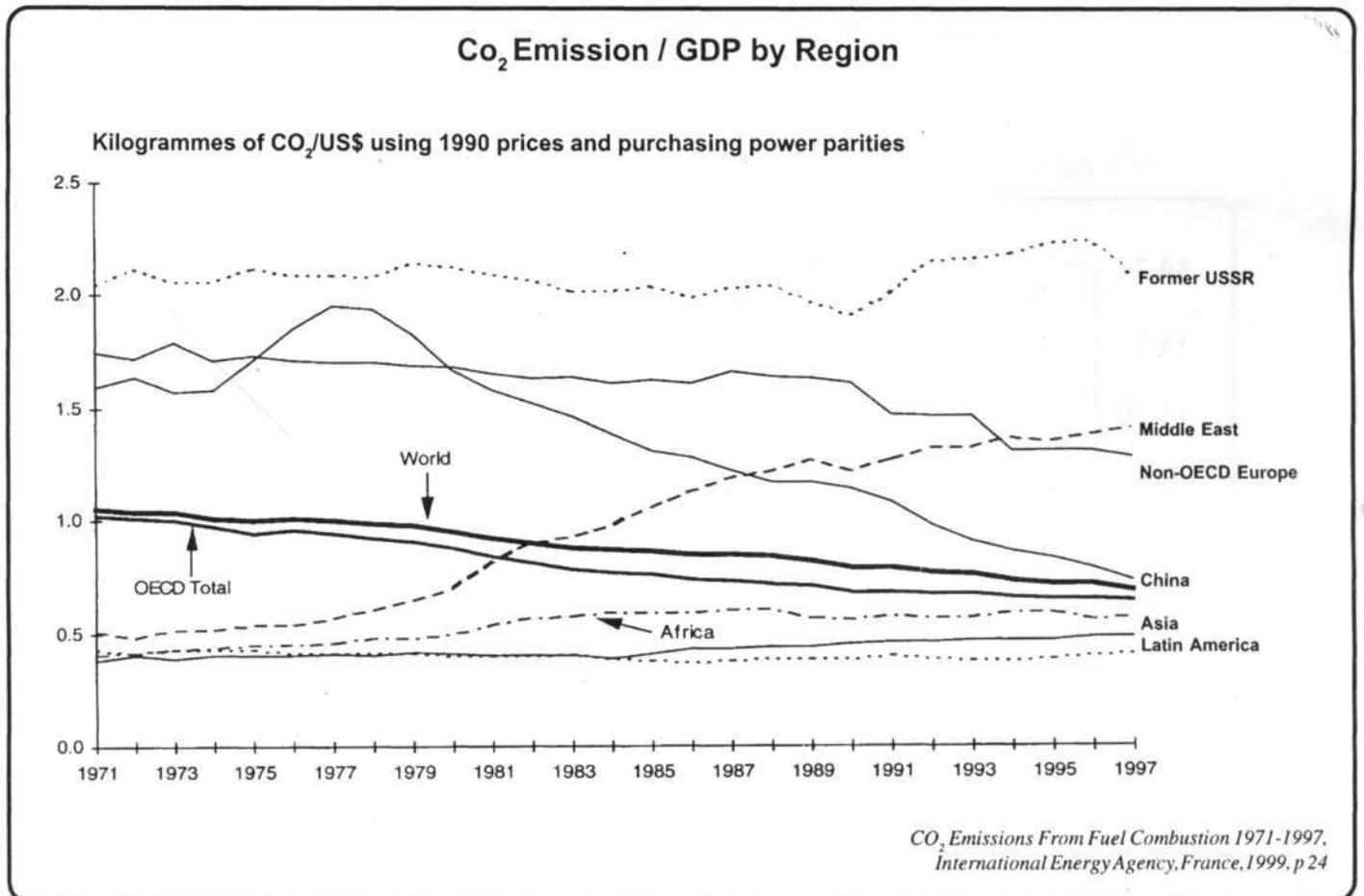
"Projected climate changes during the 21st century have the potential to lead to future large-scale and possibly irreversible changes in Earth systems, resulting in impacts on continental and global scales. "

Intergovernmental Panel on Climate Change, 2001



- The 1990's were the warmest decade and 1998 was the warmest year on record.
- The increase in temperature in the 20th century is likely to have been the largest of any century during the past 1,000 years.
- There has been a widespread retreat of mountain glaciers during the 20th century. The icecap atop Mount Kilimanjaro, which has decreased in size by 82% since 1912, will completely disappear in less than 15 years.
- Carbon dioxide (CO₂) emission account for 64% of global warming gases. 75% of human caused CO₂ emissions come from burning oil, gas and coal.
- If it is not halted, climate change will most probably result in increased frequency and severity of storms, floods, drought and water shortage; the spread of disease; increased hunger; displacement and mass migrations of people and ensuing social conflict.

Who's Responsible ?



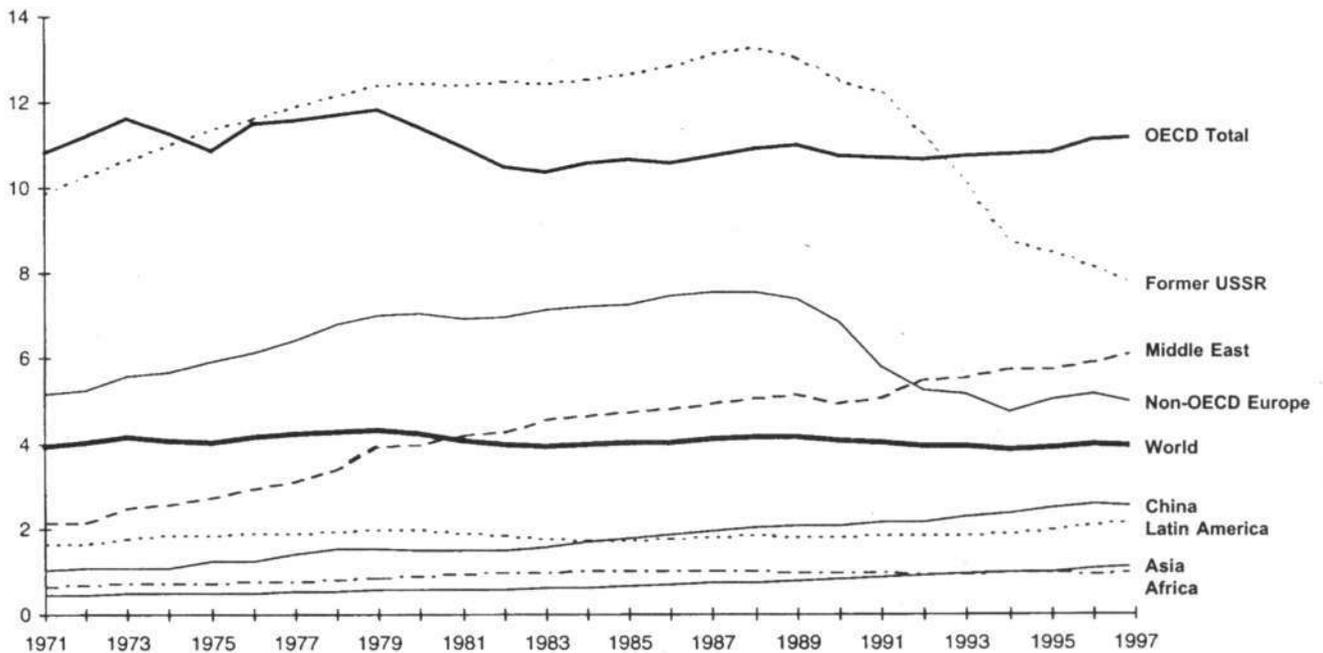
Climate change is seen as apolitical issue among nations. The US, responsible/or about a quarter of all global warming gases, is calling for greater CO₂ reduction by developing nations. But many corporations emit more CO₂ than most countries.

Since the 1992 Earth Summit, the World Bank has spent 13.6 billion dollars on fossil fuels projects which will generate 37.5 billion tons of carbon dioxide.

Ninety percent of these World Bank-sponsored oil, gas and coal projects will benefit transnational corporations based in the world's seven richest countries. Meanwhile less than 9 percent of this energy lending is devoted to meeting the energy needs of the world's poorest 2 billions people.

CO₂ Emissions per Capita by Region

Tonnes of CO₂ per capita



CO₂ Emissions From Fuel Combustion 1971-1997, International Energy Agency, France, 1999, p 24

- Just 122 corporations account for 80% of all carbon dioxide emission.
- Oil produced by just four companies—Shell, Exxon-Mobil, BP-Amoco-Arco, and Chevron-Texaco—accounts for 10% of all carbon emissions.
- Oil produced by Shell emits more carbon dioxide than most countries in the world including Canada, Brazil and Mexico.
- BP-Amoco's production accounts for more emissions than those of its home country, the UK.
- Exxon-Mobil's production creates emissions equivalent to 80% of those from all of Africa or South America.
- Royal Dutch Shell sent 43 official representatives and lobbyists to the November 2000 climate negotiations in The Hague, a delegation larger than most countries and nearly half the size of the 100 plus person US delegation.

Economic globalization advances global warming and the fossil fuel industry's bottom line.

Company, Country or Continent	Million Metric Tons of CO ₂ Emitted Annually
South America	747.3
Africa	745.6
BP AMOCO	622.6 (including ARCO)
EXXON MOBIL	601.4
United Kingdom	543.3
SHELL	493.7
Central America	477.0
Canada	470.8
Ukraine	430.6
Italy	410.0
France	362.0
Mexico	327.6
Brazil	287.5
Australia	287.5
Saudi Arabia	227.1
CHEVRON	187.6
Netherlands	178.8
Turkey	160.5
Thailand	155.5
TEXACO	145.7
Argentina	128.3

The Blame Game: Global Warming & Global Equity

How should actions to prevent climate change be shared among the countries of the world? There are many ways to look at the question, and the answer, inevitable, is political. A common sense approach to equity, or fairness, includes the following factors:

- historical emissions
- current and future emissions
- per capita emissions
- ability to reduce emissions without hardship to population

The Kyoto Protocol, which so outrages big oil companies, says that the U.S., Western Europe and other industrialized countries must reduce their carbon emissions by various amounts by the year 2010. Developing country commitments will come later. Is this really so unreasonable?

One measure of how to require actions would be historical responsibility. In other words, how much total carbon a given country has emitted in the past is one indication of their responsibility. By this criterion, the United States has by far the largest contribution to total CO₂ emissions. Despite having smaller population, the U.S. has emitted about three times more CO₂ since 1950 than the Soviet Union/Russia or China. The industrialized world as whole accounts for about 80% of CO₂ emissions historically.

In current emissions, the U.S., also has by far the highest of any country in the world. Moreover, U.S. emissions are still growing, with an increase of 11% between 1990 and the year 2000. With the exception of Germany and the UK, all the major emitters whose CO₂ emissions decreased were in the former East bloc; the decrease was due to economic stagnation rather than improved efficiency or development of alternative fuels.

On a per capita basis, the U.S. contribution is even more

skewed. On average a U.S. citizen emits about 120 pounds of greenhouse gases per day, about twice as much as the average for other wealthy countries like France, Germany or Japan. With just four per cent of the world's population, the U.S. emits about one-fourth of the world's greenhouse gases. The average greenhouse gas emissions of a U. S. citizen are equal to 25 Indians, 33 Pakistanis, 125 Bangladeshis, or 500 Nepalese.

Worse still, the U.S energy consumption is still growing, largely as a result of more driving, bigger cars, bigger houses and appliances, and lack of efficiency measures by industry.

In addition the, U.S. has the strongest economy in the world, and one of the highest rates of CO₂ emissions per unit of GDP. By any interpretation of equity, the U.S. should double, triple or quadruple the reductions of almost all other large countries, even the wealthiest nations of Western Europe. Neither the Kyoto Protocol nor any other forum has dared to suggest this, however.

If one were to take into account emissions created by US corporations operating in the developing world, the responsibility of the US is greater still.

And what about China and India? If we look at the four criteria for common sense fairness above, we see that these countries fit just one of the four. They are not major historical contributors, they have relatively low per capita emissions, and their widespread poverty makes it difficult to reduce emissions while improving the standard of living. But in simple numerical terms, it is true that China, India, Brazil and a few other developing countries must become part of the solution if climate change is to be prevented. As we have already seen, the oil companies, along with the international financial institutions, nevertheless are pushing the development of fossil fuel based economies in these countries.

Commitments at Kyoto

Aubrey Meyer

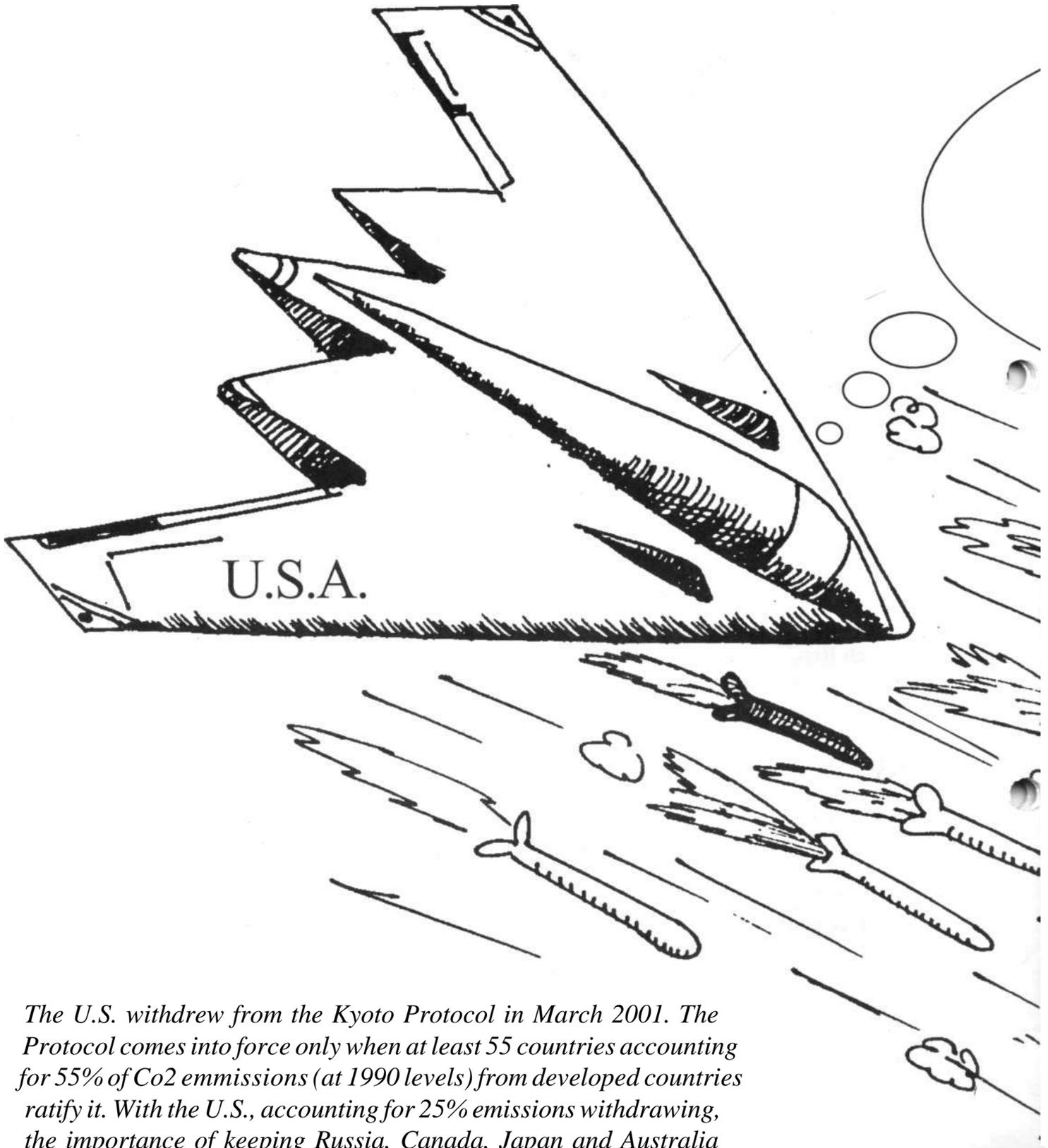
COP - 3: At Kyoto an agreement was reached that developed countries would reduce their GHG emissions to 5% below 1990 levels.

Who has promised what for their CO₂ emissions

Country	CO ₂ emissions in 1990, million tonnes	% of world emissions	Kyoto Pledge	CO ₂ per capita, Tonnes	CO ₂ per \$ of GDP, grammes
United States	4,957	23	7% Cut	19.83	246
Russia	2,389	11	No rise	16.13	1,071
Japan	1,173	5.4	6% Cut	9.35	107
Germany	1,012	4.7	21% Cut	12.79	169
UK	584	2.7	12.5% Cut	10.04	161
Canada	457	2.1	6% Cut	16.64	222
Italy	428	2.0	6.5% Cut	7.51	107
Poland	414	1.9	6% Cut	10.88	1,919
France	367	1.7	No rise	6.23	84
Australia	289	1.3	8% Rise	17.12	268
Spain	261	1.2	15% Rise	5.79	126
Romania	171	0.8	6% Cut	7.37	1,220
Czech Rep.	170	0.8	8% Cut	16.09	1,431
Netherlands	168	0.8	6% Cut	11.21	161
Belgium	113	0.5	7.5% Cut	11.18	196
Bulgaria	83	0.4	8% Cut	9.24	1,092
Greece	82	0.4	25% Rise	8.02	277
Hungary	72	0.3	6% Cut	6.93	591
Sweden	61	0.3	4% Rise	7.15	73
Austria	59	0.3	13% Cut	7.70	102
Finland	53	0.2	No rise	10.81	109
Denmark	52	0.2	21% Cut	10.12	110
Switzerland	44	0.2	8% Cut	6.60	54
Portugal	42	0.2	27% Rise	4.25	171
Norway	36	0.2	1% Rise	8.36	84
Ireland	31	0.1	13% Rise	8.76	187
New Zealand	26	0.1	No rise	7.59	160
Luxembourg	11	0.05	28% Cut	29.76	299

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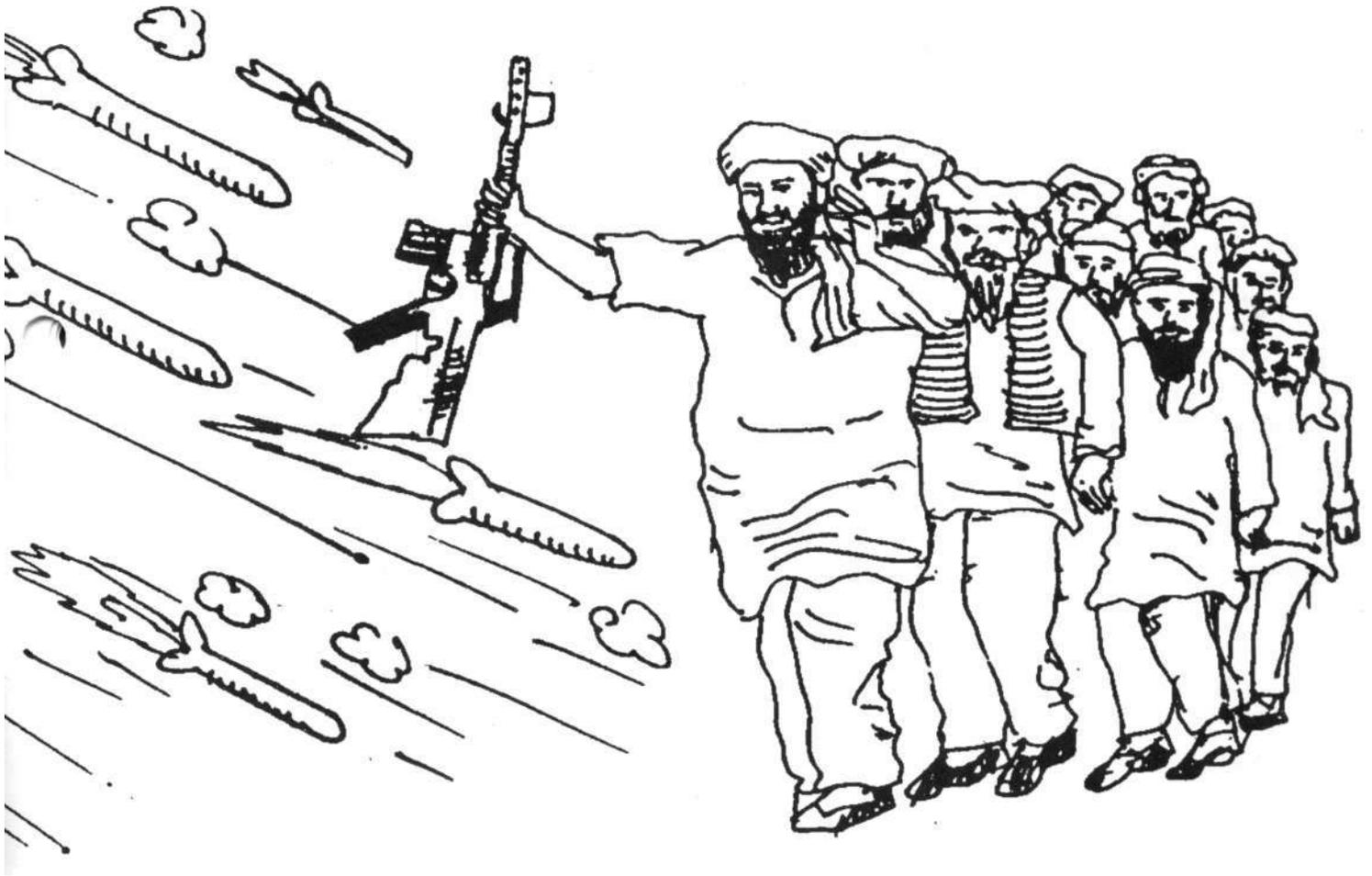
After Kyoto Scrambling for Credits



The U.S. withdrew from the Kyoto Protocol in March 2001. The Protocol comes into force only when at least 55 countries accounting for 55% of Co2 emmissions (at 1990 levels) from developed countries ratify it. With the U.S., accounting for 25% emissions withdrawing, the importance of keeping Russia, Canada, Japan and Australia within the COP process became important.

GLOBAL WARNING

Forget
the Kyoto Protocol.
This will make the Earth
a much cooler
place to live in.



Clean Development Mechanism (CDM)

This enables developed countries to take up emissions reduction projects in developing countries and obtain credits towards what emission reductions they promised at "Kyoto".



Under the Marrakech deal CDM takes a new form. Now a developing country can unilaterally start a project and sell credits to industrialised countries.

Special Currency Required for Emissions Trading

Several NGOs hold strong objections to international trading in greenhouse gas emissions rights. This is because they fear that any system that allows rich to consume their own entitlement and then buy more will allow such countries to avoid making serious cuts to their fossil fuel consumption. If this happened, it would perpetuate the energy-consumption gap between nations and thus, because of the CO₂/GDP lockstep, the income gap between the energy-intensive industrialized countries and the more labour-intensive primary-producing ones.

The NGOs might be right for the first few years after the implementation of Contraction & Convergence. If, for example, the rate at which it was agreed that global emissions should contract was over-cautious or if the world economy slowed down, then the price of permits to release more emissions might be very low. Then some countries would simply buy more rights rather than invest in making themselves more energy-efficient. But if this happened, the problem would not be with C&C as a system but with the slow contraction rate. Moreover, the situation would not last and as, year by year, the number of emissions permits issued

declined, sooner or later their price would rise until it made economic sense for real changes to be made in the industrialised countries.

In order to make C&C work fairly, however, it is vital to ensure that countries that do sell part of their emissions entitlements get good value for them. This will not happen under the present world monetary system. If, for example, the US buys extra emissions rights from India and pays for them in dollars, only a proportion of those dollars will actually go back to the US to buy American goods and services any time soon. The rest will circulate internationally as if they were a world currency financing national and international trade. This is one of the reasons that the US has been able to run a current account balance-of-payments deficit for many years: the rest of the world has been happy to use the U.S. currency for trading amongst itself.

Every dollar, pound, Euro, Yen or Swiss franc received in payment for goods, services or emissions rights that does not find its way back to the country which issued it almost immediately represents a subsidy to the



Carbon Sinks is a process which enables developed countries to promote forest related activities that will enable GHGs to be absorbed and thus reduced emissions (and their commitments at home). This affects land use patterns in the developing countries. More importantly, it affects the most likely place such a mechanism will be implemented - inhabited mostly by indigenous peoples.

economic system of the country from which it came. After all, the issuing country has had the benefit of the goods, services or rights it bought with the money but has not had to give anything up yet in return. This is grossly unfair. What it means in relation to C&C is that if the industrialised countries are allowed to buy extra emissions rights with money they have issued themselves, they will essentially be able to buy those rights at a substantial discount.

Richard Douthwaite proposed a solution to this problem in Schumacher Briefing No.4, *The Ecology of Money*. He suggested the creation of a new world currency, the *ebcu* (Emissions Backed Currency Unit) which would be issued by the body set up to handle the annual distributions of emissions permits under Contraction & Convergence. The new money would be distributed by being given to countries in proportion at their population at the same time as the first batch of emissions permits. This would be a once-only issue. No more *ebcus* would ever be given out.

The recipients would use their *ebcus* instead of national currencies for all their international trade, including emission trading. This would immediately eliminate

the economic advantage currently enjoyed by those countries with internationally acceptable currencies. If the price of emissions rights in *ebcus* rose above a fixed rate, the issuing body would be prepared to sell additional permits. It would take the *ebcus* it received as a result of these sales out of circulation and the resulting tightness in the supply of the new currency would restrict the amount of international trade was possible to carry on. This in turn would reduce the demand for fossil energy. In short, the system would fix the value of emissions rights in terms of *ebcus* and mean that the level of international economic activity was determined by the efficiency with which the world used fossil fuel.

National and local currencies would still exist, of course, and if the countries or regions in which these circulated were able to use fossil energy more efficiently than the global average by supplementing it with energy from renewable sources, they would be able to become more prosperous than less fossil-energy-efficient parts of the world. A fuller explanation of this system can be found in Douthwaite's book.

Non-Governmental and International Organisations

Although governments have been the principal players in the Kyoto process they are not the only influential ones at the international level. Even though they did not directly participate in the intergovernmental negotiations, non-governmental and public international organisations influence government actions by providing information and advice, making policy recommendations and sometimes by direct lobbying. In total, "An enormous number of organisations of myriad type and size" participate in the international policy-making on climate change.

International bodies such as the UN Environment Programme (UNEP), the UN Development Programme (UNDP), the UN Conference on Trade and Development (UNCTAD), the International Civil Aviation Organisation (ICAO), the World Bank, the Global Environment Facility (GEF), the OECD and the International Energy Agency (IEA), the UN Industrial Development Organisation (UNIDO), the UN Children's Fund (UNICEF), the World Meteorological Organisation (WMO) and others, attended the negotiating sessions and influenced the discussions by providing background information and expertise in their fields of competence. UNEP and WMO, the parent organisations of the IPCC, are extensively involved in the discussions. Others like ICAO have been involved to the extent that their special concerns (e.g. emissions from international aviation) are the subject of deliberations.

Most importantly, however, nearly 250 Non-governmental Organisations (NGO's) participated as observers in the conference at Kyoto. Formally, three different NGO constituencies are officially recognised in the framework of the international climate talks. The two largest groups are the environmental and business NGO's, which themselves embrace a diversity of interests and positions. In addition, many local authorities have also been represented by the International Council of Local Environmental Initiatives (ICLEI). In the Kyoto process, ICLEI represented about 240 cities with 100 million inhabitants.

The "Climate Action Network" (CAN), established in 1989 in the run-up to the Second World Climate Conference of 1990, consists of eight regional sub-networks and more than 260 member organisations (as of March 1998). Modern communication technologies and e-mail systems in particular have allowed CAN members to exchange information and co-ordinate closely during the intersessional periods.

Table : Participation of Observer Organisations in the Kyoto Process

	COP1	COP2	COP3
NGOs	165	116	236
Inter-govemmental Organisations	12	10	15
UN Secretariats and Specialised Agencies	19	20	27

Regular gatherings are held at negotiating meetings to discuss matters of strategy and exchange "intelligence" on latest developments. As a result, environmental NGOs have thus considerably contributed to the development of the climate regime and the adoption of the Kyoto Protocol.

United by their common concern for the global climate, CAN members act in a number of different roles in the climate process. Several are engaged in active lobbying of government representatives. International networks like the World-Wide Fund for Nature (WWF), Greenpeace and Friends of the Earth belong to these environmental activists, as do organisations with a national base, like German Watch (Germany) or Ozone Action (US, Canada). Some "green" NGOs are single issue organisations that work only or mainly on the issue of climate change, others (e.g. WWF and Greenpeace) are multi-issue oriented. Organisations like the World Council of Churches (WCC) are also actively involved in the climate change process as part of their broader agenda, which stretches beyond the environmental field.

A special group of CAN members are not engaged in direct lobbying, but provide technical or scientific advice and policy recommendations (although they have been "activist" to varying degrees as well). Ecologic, the London-based Foundation for International Environmental Law and Development (FIELD), the Stockholm Environment Institute, VERTIC, the Woods Hole Research Center, the World Resources Institute, the Worldwatch Institute and the Wuppertal Institute for Climate, Environment, and Energy belong to this category.

In giving advice and lobbying, advocates for the environment make use of different channels and mechanisms. One of the most important instruments for lobbying is "ECO", the NGO newsletter regularly published at international environmental conferences since 1972. It serves as an influential common organ that publicises information and raises new issues. Delegates of most governments usually read it first-thing in the morning, in order to remain up to date in the negotiations and for a good laugh, because the editors are well aware of the general lack of humour in the negotiations and include entertaining items. Some NGOs have been invited to become members of national delegations (e.g. on the Canadian and Danish delegations) and thus got direct access to the "inner circle" of international policy-making on climate change. For example, FIELD'S international lawyers participated in the Kyoto process as members of AOSIS delegations. Apart from that, NGOs roam the corridors of the conference centers in their search of government representatives to influence.

At the other end of the spectrum, business NGOs also play an influential role in the international process. Commanding more resources, representation of these groups at meetings has at times been twice that of "green" NGOs. The International Chamber of Commerce co-ordinates business NGO's. During the Kyoto process, hard line "grey" business NGOs, which were mainly concerned about the economic impact on their businesses of measures to combat climate change, were distinguishable from the "light-green" forces in the business community.

Fossil fuel interests are especially influential, with the US-based Global Climate Coalition being the most significant "grey" NGO. Like their major sources of funding, e.g. from Exxon, Mobil and others, their orientation has been transnational. Don Pearlman of The Climate Council, a New York-based lawyer advising the OPEC countries, was probably the most experienced representative in the Kyoto process of the "Carbon Club", as it is known informally. Several OPEC interventions in the Kyoto negotiations were indeed drafted by this group.

Other industry organisations have, however, taken a more careful stance. Business NGOs like the World Business Council for Sustainable Development (WBCSD) have called for prudent action that does not threaten to disrupt business development. Going even further, the insurance industry (e.g. Munich Re) has become increasingly aware that it might actually lose in a changed climate and has become allied with the progressive industry forces in the negotiations and the Kyoto Protocol.

Most importantly, however, an increasing part of the industry sector has begun to perceive climate change as a challenge that ought to be met with creativity. As such, during the 1990s, they built and strengthened ties with environmental groups. For example, the Business Council for a Sustainable Energy Future, which assembles the likely winners of decisive action on climate change (i.e. industries offering energy-efficient appliances or renewable energy technologies), supported stringent action during the Kyoto process. For a growing part of the business community, climate change is an "enormous opportunity to make money", as was pointed out by the Chief Executive Officer of Trigen Energy Corporation. Multinational enterprises such as BP - whose Chairman John Browne enthusiastically applauded the adoption of the Kyoto Protocol and committed his company to a 10% emission cut by 2010 - actively take part in bringing green ideas into the business associations.

Position Paper - September 2001

We, the members of the Indian Network of Ethics and Climate Change (INECC) are deeply concerned about the dire consequences faced by communities, due to extreme weather events portending significant change in the climate, and the present scenario of International negotiations on combating Climate Change.

The issue of Climate Change raises basic questions of social justice and has a direct bearing on development alternatives for the future.

We believe that both the understanding of the problem and the search for a solution to the GHG emissions has become an ethical issue around environmental, economic and political concerns of social justice at the national and international level. We believe that equity should be the basic issue in climate change negotiations and implementation of measures to reduce the GHG emissions. We also believe that this norm used at the international level should also be applied consistently within each country.

In this context *we are alarmed that negotiations do not reflect the concerns of the common person especially in developing countries.* The Climate Change issue has had the advantage of possessing one of the most elaborate mechanisms for understanding impacts and the measures that need to be undertaken. While it has taken almost a decade to begin some concrete action, it is unfortunate that the debate has come to a stalemate with the United States of America opting out of the Kyoto Protocol. Some of these rich communities are refusing to change their lifestyle and reduce GHG emissions. More so, they are redefining the solutions in order to transfer the burden of emission reduction to poor countries that have contributed a relatively low proportion of the emissions. This is raising doubts about the utility of such long drawn global negotiation processes.

The direction in which the negotiation process has led us thus far is diverting attention from the fundamental issue of reducing green house gas (GHG) emissions the world over. The mechanisms being negotiated are turning out to be another set of tools for commerce to market technology that is more often than not outdated, but will be considered to be 'energy efficient' for developing countries! We therefore want to bring the issue of actual reduction of GHGs and the focussing of attention on sustainable communities as the key aspects for negotiations.

INECC has been interacting for over seven years with communities in different parts of the country, understanding and articulating the concerns of the marginalised communities in different ecological zones on the day-to-day impacts suffered by them due to the changes in the weather phenomenon. *One of the significant learnings that have emerged is that the entire Climate Change debate must be anchored to the principle of sustainable communities.*

We are aware that Climate Change tends to occupy a low priority in most sections of civil society especially in developing countries because of the perception that the phenomenon of Climate Change is far removed from the struggle for survival of marginalised communities.

This is being myopic because such thinking fails to perceive the issue in a holistic perspective. *The ultimate victims of this ecological crisis are the urban and rural poor of our nation.* Thus there is a need to understand the international debate on Climate Change from their perspective because of the fundamental questions that it raises in relation to future direction of the world economies.

The national debate within India itself and the perspectives presented by the various institutions at the Conference of Parties have eluded two important aspects:

- Implications of Climate Change on the life and livelihood of local communities, especially those in economic and environmental margins, and
- The critical linkages between the consequences of individual ethics, societal values and consumption patterns of the rich that are directly responsible for the increase in the use of materials that cause GHG emissions.

The following are our specific recommendations :

1. The Government of India is demanding an equity-based solution at the international level but has been silent on this question at home. This norm should be applied also to its development policies that result in

greater inequalities today. India's acceptance of liberalisation and globalisation without questioning its social implications leads to greater poverty which forces the poor to overuse the environment that they have managed sustainably for centuries for sheer survival. *So while supporting the stand of the Indian Government at the international level that equity should be the basic issue in climate change negotiations and implementation, we expect it to be consistent and ensure equitable development of all Indians within the country.*

2 We believe that India should be selective in the application of the 'Clean Development Mechanisms'(CDM) in the national context: That is why we state that we cannot merely modify the present day systems such as less intensive use of energy that causes GHG emissions. One has to search for alternatives such as renewable energy. Much of our investment has to be in new clean technologies that protect the natural environment and attend to the issue of social justice.

- *We support the current understanding that the CDM will not include nuclear power and the developed world will not seek to implement under CDM any programme involving nuclear energy vindicating INECC's stand that nuclear energy is not clean on environmental and ethical grounds.* However we need to keep a vigil as there are countries which would like to bring this back into the agenda. We believe that nuclear energy apart from being hazardous, can only serve to proliferate the nuclear industry in the country. While the nuclear installations themselves may not cause emissions on a day to day basis, many accidents in these plants in the last several years show that technologies to avoid them have not been developed. Equally important is the fact that uranium mining is hazardous to the health of those working in the mines and to those living in their surroundings. The result of these hazards and accidents is long lasting. So also is the problem of nuclear waste disposal - putting future generations at risk. Besides, the temptation is always there to make a transition from nuclear power to nuclear armaments. So the investment in it is not justified.

- *We question the very basis of efficient technology on which a mechanism is considered to be clean.* For example, newer methods of mining and processing

coal, which itself is a non-renewable resource, do not constitute clean mechanisms. In the current circumstances we must argue for development based on renewables. This will enable providing a greater thrust to renewable energy promotion in the country, which has a tremendous potential for growth.

3. The crucial ethical problem related to justice is listening to the voice of the marginalised majority. They have a right to their livelihood. They, the indigenous people in particular, have treated forests as their habitat and their sustenance and have built their culture, social systems, economy and very identity around these resources. *They object to the forests being considered only carbon sinks and expect the decision-makers to respect their sentiments. It is important for the decision-makers to negotiate with these communities and find a way of sharing their livelihood to the benefit of all.* Their identity of these communities is symbiotically linked with their habitat and cannot be sacrificed. The new concept of forests as 'carbon sinks' and a commercial commodity must take into account that the sustenance and habitat of most indigenous communities depends on them.
4. India must recognize internally the energy efficiency of traditional agricultural practices and encourage such systems by seeking special provisions for their protection and expansion. *India must provide a lead in validating traditional knowledge systems and traditional technologies by updating them and emphasizing their value in the context of the Climate Change debate.*
5. Finally, *India as a signatory to the UNFCCC should play a leadership role in influencing the global economies to pursue sustainable development options. In this it has to search for alternatives and demonstrate the potential of these options.* Sustainable development has to be the basis of economic decisions. It is the logical outcome of the focus on a clean environment with equity and justice to the marginalised majority. That is why we state that we cannot merely modify the present day systems such as less intensive use of energy that causes GHG emissions. One has to reach for alternatives such as renewable energy. Much of our investment has to be in new clean technologies that protect the natural environment and attend to the issue of social justice.

Climate Change in the Light of the Four Noble Truths of Buddhism

1. There is a problem

Global climate change is a global problem.

2. There is a cause of the problem

Systemically driven over-consumption and inequality are the cause of the problem.

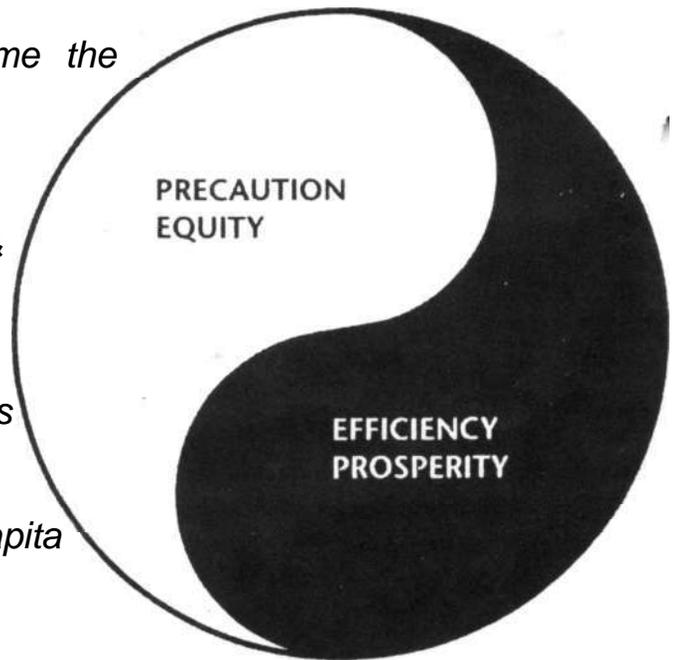
3. The problem can be overcome

A global solution is needed to overcome the global problem.

4. There is a way to overcome the problem

A global framework for 'Contraction & Convergence', structured on :

- **One : Precaution**
Global contraction of carbon emissions
- **Two : Equity**
Global convergence to equal per capita shares of this contraction
- **Three : Efficiency**
Global emissions trading of these shares to ease transition costs to zero-emissions
- **Four : Prosperity by other means**
Zero-emissions life-style and techniques



As the Tao says : 'From one comes two, from two comes three, and from three come the ten thousand things.'