Climate Change Negotiations: Issues Revisited

by Dr Mizan R. Khan

If there is any rationale in the argument that until recent times, the North was unaware of the consequences of their fossil fuel-based development, there is all the more convincing rationale that the South deserves equal environmental space in the global commons for their industrial development.

three gases - hydrofluorocar-ONCERN over environbons, perflurocarbons and sulmental degradation is not fur hexafluoride, 1995 was aca twentieth-century phencepted as the base year). As a reomenon. In the second century sult, some countries such as BC. Plato talked of erosion Australia and Iceland will be caused by earlier deforestation allowed to increase their emisin Attica. In the 3rd century BC. sions to 8 per cent and 10 per Erastothenes described how cent respectively; some countries, such as New Zealand, governmental land policy, navigation needs, and mining Russia and Ukraine will merely resulted in the deforestation of stabilize emissions. while Cyprus. However, only from the Japan, USA and EC have to resecond half of the 19th century. duce 6 per cent. 7 per cent and 8 western world took some systematic initiatives to protect per cent of their emissions respectively; c) Provision of sevnature. But the anthropogenic eral novel "flexibility instruinfluence on the atmosphere was not a matter of serious ments" including emissions trading, joint implementation. concern until the beginning of and a new clean development the 1980s. The Conference of Parties 4 (CoP 4) to the UN FCCC mechanism (CDM); d) Finally, has begun on 02 November in the EC introduced a "bubble concept" (Article 4), in which its Buenos Aires, capital of member states are allowed to Argentina. It will continue for two weeks. Such deliberations jointly fulfill their obligations are taking place at the end of under Article 3. 1998, reported by the UNEP as Flaws of Kyoto Protocol: The the warmest year in human his-Protocol seems to have some tory. The frequency of climate major flaws: a) It is doubtful whether it will enter into force

change negotiations in recent as stipulated, because of its years is indicative of a greening rather high ratification of diplomatic agenda in the threshold; the Protocol conpost-cold war era. tains a "double trigger," which Achievements of Kyoto: Disrequires not only a certain cussions in the CoP 4 cannot be expected as a smooth ride, as number of ratifications, but also a certain percentage of they were not in the previous emissions for entry into force. negotiations. It may be recalled As a result, without the particithat CoP 3 had taken place Depation of the US, which emits cember last in Kyoto, Japan. over one-fifth of global GHG. Kyoto has achieved some compromise agreements. Let us rethe Protocol cannot virtually capitulate them: a) For the first enter into force; b) The value of time in history. Kyoto Protocol reduction targets is diminished by the fact that sinks have been contains legally-binding reducincluded in the targets. There is tion targets for six major green great uncertainty in the uptake house gases (GHG), a major step of GHGs by sinks, such as forward in international efforests. Its inclusion considerforts to avert the threat of cliably reduces the obligation of a mate change; b) The parties number of countries; c) The Proadopted differentiated targets for industrialized (Annex-1) tocol allows for the retroactive application of any decision on countries for the period 2008additional human-induced ac-2012 averaging a reduction of tivities for the first commit-5.2 per cent (compared to the base year of 1990 for three gases ment period, thus creating more uncertainty in the actual scope - carbon dioxide, methane, and of a Party's obligation; d) Finitrous oxide; and for other

ROM agricultural produc-

tion to post-harvest pro-

L cessing, marketing, food

security as well as providing

nutrition within the household

- women play an important

mesticated crop plans and pio-

neered the art and science of

farming. While men went out

hunting in search of food,

women started gathering seeds

from the native plants and be-

gan cultivating those needed for

food, feed, fodder, fibre and fuel.

Women have been traditional

seed selectors since the domes-

tication of crop plants. The

same tradition is being contin-

ued, says noted agricultural ex-

edges the fundamental contri-

bution of women to household,

national food security and

multiple roles rural women

the World" was chosen as the

theme of the 1998 world food

day, says Dr Jacques Diouf, di-

rector general of the FAO.

total food is produced by

women. In rural areas of the de-

veloping world, where food pro-

duction is the principal activ-

ity, women provide 80 per cent

of the food consumed in their

own homes. Yet their families,

the rural poor, form the major-

ity of the world's 80 million

chronically hungry people, says

producing staple crops — rice,

wheat and maize - which pro-

vide up to 90 per cent of the ru-

ral poors' food intake. The men

plough the field and drive

drought animals, whereas

women are responsible for sowing, weeding, applying fertilis-

ers and pesticides, harvesting

especially when it is highly

mechanised, while women gen-

erally work smaller plots and

home gardens, practising a low

input farming. Women's work is

most often unpaid, since they

produce food for household

rather than cash crops for

marketing. Women work as the

'invisible actors' in overall de-

in production of pulses and veg-

etables is also of immense im-

portance. Grown mainly in

home gardens, these vital crops

provide essential nutrients and

are often the only food avail-

The contribution of women

Men do large scale cropping

Women play a pivotal role in

Dr Diouf.

and threshing.

velopment.

More than half of the world's

That is why "Women Feed

The FAO firmly acknowl-

pert Dr M S Swaminathan.

It was women who first do-

role in the entire food chain.

nally, though the reduction commitments have been made legally-binding, the Protocol contains no stipulations for sanctions in the event of noncompliance by any Party.

Challenges at Cop 4: The most thorny issue at CoP4 is going to be whether developing countries (Non-Annex-1 Parties) will agree to any reduction targets now or at some specified point in future. US Vice President Al Gore stated that the Administration would not submit they treaty to the Senate for ratification unless key developing countries participate in this effort. Last year, the US Senate adopted the so-called Byrd-Hagel resolution (by a vote of 95 to 0) declaring that it would not ratify any treaty that did not require developing countries to limit their own

GHG emissions. The South resists any commitments for reduction on the ground that global warming is the creation of the North, which has already overused the "global environmental space." They have the resources to combat it, thereby paying their 'ecological debt'. The South has to grow and develop, but in a more environment-friendly way, with additional financing and technology transferred from the North. The North argues that if not current, but future emissions from the South will soon exceed those of the North: so the former, at last the key ones of them, have to be parties to reduction programmes. There is now pressure even for "voluntary commit-

ments," and this is likely to be intensified in CoP4. But the terms "voluntary" and "commitments" appear contradictory. The South is apprehensive that "voluntary commitments" of today may soon turn into "irrevocable commitments" for tomorrow. Thus, climate negotiations easily sail onto the shoals of North-South discord.

Ecological Interdependence: As a matter of fact, there are many strands of arguments over environmental diplomacy in both North and South, with extremes on both sides: one extreme in the North cautions against a "greenmail" by the South. Another extreme in the South looks at a Northern "hidden agenda" in dictating the direction and pace of growth in the South (eco-colonialism) These views are certainly devoid of an enlightened approach. A dispassionate analysis tells that climate diplomacy is the result of several factors: increased awareness of the environmental damage caused by economic activities, rapid population growth, the perception of earth as a single biosphere. and more recently, end of the cold war. The binding glue is an awareness that global environment is already under stress, and actions in one part have serious implications for resource availability in other parts. Thus, there is a genuine interdependence, which is a function of the irrevocable process of globalization of both the economy and the environment. Though the countries of North and South differ in economic

power, in the context of ecology, their long-term interests are the same, the survival of the planet Earth. Only the shortterm interests differ about how to achieve growth without degrading the ecology's life-sup-

port systems The crux of the problem actually lies in the premise of the global economy: endless growth. Indiscriminate pursuit of this goal within our biosphere, which is a global common, has turned it into an open access regime. So Garett Hardin's "Tragedy of the Com-mons" was in full play. But global environmental crises suggest that our biosphere has limits both on the sink as well as on the source sides. Therefore, continuing acrimony over blame allocation and using negative power by either of the parties will not ensure a sustainable climate regime. The issue is, first, to objectively analyze the problem, and second, to suggest remedies based on the principles of equity and fair-The Problem: There is al-

North, marked by increased use of finite environmental resources, competes with escalating population growth particularly in the South as principal threats to environmental sustainability today. Therefore, conclusions drawn from I=PAT(I=environmental impact. P=population, A= afflu-

ence/disposable income, and

T=technology used) should be

ready a consensus among the

scientific community that un-

bridled consumerism in the

clear enough: there are only three ways of reducing the impact of human activities on the already stressed environment: 1) limiting population growth 2) limiting consumption, and 3) improving the technology. thereby reducing through put intensity in our production processes. All the three factors work not in additive, but in multiplicative fashion. For example, per capita pollution emission in the US is equiva-

Bhutanese and 500 Nepalese. Norman Myers of the University of Oxford stresses the implications of population growth particularly in the North. Britain's 0.2 per cent annual growth rate adds 116,000 people per year to its population. By contrast. Bangladesh, with about 2.0 per cent growth rate. adds about 2 million. But every person in Britain uses more than 80 times as much fossil fuel as a Bangladeshi, so Britain's population growth effectively contributes more than four times as much carbon dioxide to the atmosphere as Bangladesh's. The irony of the fact is that advocacy of limits of any kind is anathema to politicians and self-defeating for winning votes. For example, in the Rio Earth Summit of 1992. the US moved to delete all references to consumption in the

lent to 125 Bangladeshis, 250

But facing the challenge depends mainly on two factors: Power of Example and Power of the Purse. Loud professions by

North. In retaliation, the G-77

the development agencies of the positive links between environment and development are yet to find sufficient number of pliable practioners. The South is already doing a lot to reduce emissions, not exactly for climate reasons, but for increasing energy efficiency, reducing subsidies and other fiscal benefits. On the other hand, there has been a consistent decline in the flow of development assistance. Thus, in order to take the South on board, the North must make good faith efforts to im-

plement the Protocol at home and abroad. Principles of Equity and Fairness: At the centre of negotiations are, therefore, the issues of sharing costs and responsibilities for reducing the risk of serious disruptions. Here the terms are not directly those of science or economics of global warming, which have been highly politicized, but those of equity and fairness of a cost-sharing plan. The UNFCCC acknowledges the centrality of equity: "The principle of equity and the common but differentiated responsibility of countries should be the basis of any global response to climate change." Even before the IPCC process. Principle 21 of the Stockholm meeting of 1972 states, in part: "States have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdication." Obviously the burden mostly falls on the North. If there is any rationale in the argument that until recent times, the North was undeleted references to the urgency aware of the consequences of of slowing population growth in their fossil fuel-based development, there is the more convincing rationale that the South deserves equal environization. If early ignorance of the effects of development is justifiable, this warrants that the North should help the South all the more to allow them the means of avoiding the earlier polluting paths of industriali-

If there is any rationale in the argument that until recent times, the North was unaware of the consequences of their fossil fuel-based development. there is all the more convincing rationale that the South deserves equal environmental space in the global commons for their industrial develop-

Thus, based on the principle of equity and fairness, it is rational to adopt the principle of "equal entitlements," fixing the amount of emissions that each individual in the world is entitled to. The concept had been endorsed by the member nations at the recently-held Non-Aligned Movement (NAM) Summit in South Africa. No one can argue that the Northern countries have a divine right to emit more per capita than the Southern countries. Equally, no one can argue that the South has a right to freely expand their populations and thereby diminish the share which is available to everyone else. Thus, it seems that while rights to emission must be divided between nations on a per capita basis, the time at which the number of heads should be counted also needs to be agreed. However, once the principle of per capita entitlements is agreed upon, finding a base year

The author, a Ph.D in Environmental Policy (USA), is Research Director, Environment A. Economic Studies Division. Bangladesh Institute of International & Strategic Studies (BIISS). Dhaka.

should not be that difficult.

How Women Feed the World

by Som Dutt

More than half of the world's total food is produced by women. In rural areas of the developing world, where food production is the principal activity, women provide 80 per cent of the food consumed in their own homes. Yet their families, the rural poor, form the majority of the world's 80 million chronically hungry people.



the year, regardless of the sea-In Nigeria, home gardens occupy only two per cent of a household's farm and account

able during the lean season.

Home gardens offer better pro-

duce to eat or sell any time of

for half of the farm's total produce. Similarly home gardens in Indonesia provide more than 20 per cent of the household income and 40 per cent of the domestic food supplies. In Africa and Asia, women

work about 13 hours more than men in a week, whereas in eastern Europe and the Commonwealth of Independent. States seven hours, in Latin America six hours, in western Europe five-six hours and in Japan two hours. The differences in workloads is particularly for the rural women, the world's principal food producers.

Although there is a genderbased division of labour, women shoulder the larger share. Besides food production. women take on the burden of preparing and processing the food while fulfilling their fundamental role of nurturing and caring for children and elderly

woman in west African villages starts at 4 am and ends at 11 pm. In some areas of Latin America, poor women work for more than 16 hours daily.

nutritious diet.

food by spending several hours a day. They fetch the drinking water and fuel, spending on an average 46 minutes to more

In Tamil Nadu, mothers of healthy children have been trained to become community nutrition workers. Till now about two million women and children between the age of 3 and 6 years in 20,000 villages have been trained. It reduced by 55 per cent the incidence of severe malnutrition. Similarly, life expectancy has been increased up to 70 years compared with 56 to 58 per cent of the national average. Some studies in Africa and Latin America indicate similar trend of improve-

members of their families.

On an average, the day for a

The responsibility of food preparation rests almost entirely with women in both developed and developing countries. They decide foods that determine the nutritional wellbeing of their families by acquiring and selecting a variety of foods to provide a balanced and

In rural areas, women cook than four hours a day.

Women prepare meals using

per cent of the domestic produce from farms to the consumer end. In the Andean region of Latin America, women play equally significant role in trad-

ing of farm produce. Their participation is generally greatest where trade is not highly commercialised or industrialised. Women often transport and sell vegetables, fruits and other produce. In Caribbean countries, all local marketing activities are performed by women. The trading not only improves family income but translates directly into improved family nutri-

Women farmers play key role in conserving soil fertility employing following fleaving fields uncultivated at least for a season), crop rotation, intercropping, mulching and other techniques that help promote soil conservation and fertility.

Women's home gardens are models of sustainable land use. In Nigeria, women cultivate 18-57 plant species of tubers. legumes, grains and fruit bearing trees, apart from raising dwarf goats and poultry. "They practise more multiple cropping, plant more carefully and have more knowledge of varieties than their husbands." the

FAO bulletin says. Forests are a good source of

paid employment for the rural women. What they earn supplements the family's income. Women also contribute a lot in managing nurseries, plantations, logging or wood processing. Their role in forest activities is not fully recognised or

documented. Moreover their working conditions are often poor and their wages lower than those of men. The widespread deforestation reduces access to forest products, adding to the drudgery of women who are forced to cover longer distances and spend more time in search of much needed fuelwood and forest products.

More than 2,000 million people depend on wood and charcoal for cooking worldwide. Where forests are depleted, gathering wood, a chore that almost always falls on women and girls may involve walking several kilometres daily and returning with heavy loads. In east Africa, minimal household needs for fuelwood alone take

up to 300 workdays every year. Men own larger livestock and use them to work, but it is often the task of women to feed and milk these animals. In Nepal, collecting fodder for buffalo is exclusively a woman's

In most of the developing countries, women raise poultry,

sheeps, goats, rabbits and guinea pigs. Thus small animal husbandry - an important source of income - is fully under the control of women. Women spend most of their income on food for their families. It is not surprising that growth in poultry and small animal husbandry has proved to be more crucial than expanded cattle herds in boosting the diet of the low income groups.

mental space in the global

commons for their industrial-

In fish production, women manage small boats and canoes, and onshore skilled and time consuming jobs like net making and mending. Most of the inland fishing from rivers and ponds, backwaters, canals and lagoons is done by women in many countries. The women have assumed a leading role in the rapid growth of aquaculture and fish farming.

Women process the catch by sun-drying, salting, smoking and preparing fish and fish derived foods. They sell these products and act as wage labourers in large scale processing industries, earning money for their families. A few women have become important fish entrepreneurs. As such they earn. administer and control significant sums of money, financing a variety of fish based enterprises and generating substantial returns for their house-

holds as well as the community. Rural women are often custodians of knowledge on plant varieties and their uses as food or application in medicine and crafts. They are particularly keen to maintain diversity of cultivated and wild plant species, since they use the ge-

netic resource to develop new varieties according to their requirement.

Taste, texture, processing storage qualities, resistance to pests and diseases and soil and climate adaptability are main character they seek, whether it be in cultivated plants or in indigenous trees, shrubs or herbs.

In sub-Saharan Africa. women cultivate as many as 120 different plants in the spaces left along side the cash crops managed by men. In the Andean regions of Bolivia, Colombia and Peru, women develop and maintain seed banks. In Rwanda beans, traditionally grown by women, and known as meat provide one-fourth of the calories and half the protein consumed by its population. The fields managed by the Rwandan women provide higher yields and are less vul-

nerable to pests and diseases. In many countries, women's gardens are used as experimental plots, where wild and indigenous plant species are adopted or diversified. In Guatemalan, home gardens, mangoes and papayas tower abover shorter trees - bananas. maize, beans, tomatoes and peppers. Bean vines wind their way up trees and maize stalks, while Turkeys and chickens roam among the plants and eat

insects. Thus women are major "invisible actors" feeding the world and maintaining the food secu-

- APB/PTI Feature The writer is with Indian Council of Agricultural Research, Delhi.

Reformers Struggle Against Early Marriages

Kenya's Maasai community maintains a tradition of marrying off girls by the time they reach age 10. Gemini News Service reports on a movement to end the practice

that is bubbling up from within the Maasai community. Irene Kimani writes from Kajiado, Kenya

LEVEN-year-old Jedidah recalls the day she arrived activities performed by women home from school to discover her father had married her off to a 60-year old man living a few metres away from their manyatta, the traditional Massai homestead. Aware that some of her col-

> leagues had their schooling cut short by their fathers - loyalists to what many here consider to be outdated traditions - she made a dash for freedom before the wedding celebrations. She was undeterred by the

> wild animals that roam the nearby wilderness and found sanctuary for two weeks in a thicket five kilometres from her home, 80 km southwest of Nairobi.

"I did not want to end up like my mother," says Jedidah. "She was married off at the age of 15 as my father's fifth wife. Save giving birth to children and taking care of the normal chores around the house, I was her do nothing else." She has grand ambitions. "I

want to be a doctor, to live in a modern brick house and I know that if I accept being married off this will not be possible."

Jedidah symbolises the increasing cultural gridlock facing the girl-child within Kenya's pastoralist Massai community.

Though no records are kept to track the number of Massai girl-children married off, it is estimated that most parents have already struck deals with potential suitors for their daughters by the time they are 10, often with men five times

their age. Old men prefer young girls because of their chastity and the number of children they can produce. Maasai believe having more wives enhances community cohesion by increasing the number of in-laws. "It is not that we don't love our girls," says Keriana Quan-

tai, 26, who looks after his cattle in Ngong, where many Maasai live. "When our young girls are married off to men regardless of whether they are old or not, the idea may seem repulsive to an

outsider. But we know that the idea is solid for it has served our community for ages." Marrying off a young girl is seen as desirable because of fear the daughter will have a child out of wedlock, causing the family to lose face. The large dowries also make it an impor-

for a pastoral people whose af-fluence is measured by the size of one's herd of cattle. However, Kenya's estimated 900,000 Maasai have different opinions.

tant source of materials gain

"I believe everyone is entitled to a free choice of whoever they want to marry." says Kenneth Taipantai, a second-year law student at the University of Nairobi.

Many mothers do not support the practice, but cannot speak openly because of fear of physical abuse at the hands of their husbands. And the tendency among young Maasai men is that the more schooling they have, the more likely they are to view the practice as an infringement on women's rights.

"It is really a big problem here," says Prisilla Nangurai, a Maasai who is principal of AIC Kajiado girls' primary school.
"The Maasai community is yet to appreciate the need to educate their girls. For them a girl is seen as an expense undeserving of going to school, they prefer marrying them off regardless of their youth."



Nangurai is a winner of the Guinness Stout Effort Award, a local honour handed out to those who make wholesome contributions to society. She says forced marriages have had devastating effects on the Maasai girl-child.

"The girls are traumatised and this is readily reflected in their lucklustre academic performance. Female circumcision, which is also practiced in the region, also has negative ef-

fects on the girls." The school, applauded for being in the battle to change this current practice, is finding the going bumpy. Established in 1959, it has had to contend with traditionalists who make the majority, but it draws strength from a gaggle of fellow reformers who want to wipe out the custom. "We talk to mothers to advise

their daughters as to the course to take if forced into marriage by their fathers," says Eddah Gachukia, head of the Forum of African Women Educationalists, a regional NGO that lobbies on behalf of female children. Efforts against the early

marriage syndrome began in earnest in 1985. "That was when we reached

the threshold," says Ednah Konchellah, a member of the Maasai International Development Programme, a local non-governmental organisation that seeks to advance positive traits of the Maasai community.

Garfield ®

James Bond

BY WAN FLEMING

DRAWING BY HORAK

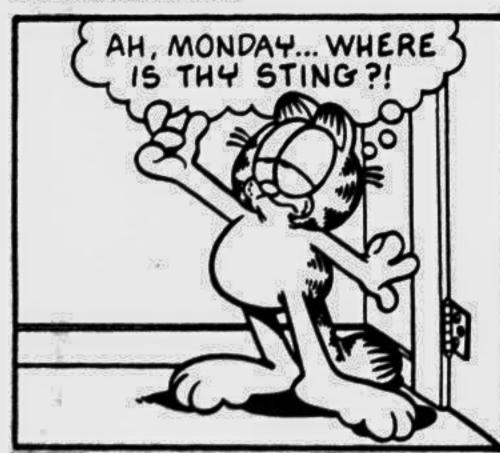
AN AUTOMATED.

UNMANNED DRONE

SUBMARINE ?...

SOUNDS PRETTY

FAR OUT!



A GUIDED MISSILE





Preparing food for table or

market in Asian countries:

transforming paddy into rice by

milling in Indonesia; making

puffed rice in Nepal; processing

oilseeds in China; cleaning and

slicing fruits and vegetables for

canning in India; drying fish in

Sri Lanka; making kimchee

pickle in Korea; and canning

tuna in Thailand are principal

to feed the world, according to

in the trade of food products all

over the world. In west Africa,

women traders handle 60-69

by Jim Davis

Women are actively involved

an FAO report.



time tested formulae that en-

hance nutritive values of foods.

In east Africa, preparation of

Irio, a traditional kikuyu dish.

containing maize, beans, potato

tritious item. Leaves collected

from weeds, trees and shrubs

add nutritive value to the staple

Democratic Republic of Congo

eat leaves of about 50 indige-

are done by women. In north

Africa, women spend four hours

a day on grinding wheat.

The rural families in the

Most of the processing jobs

foods.

nous plants.

and green leaves is quite a nu-