



OneWorld South Asia

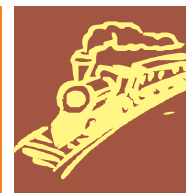
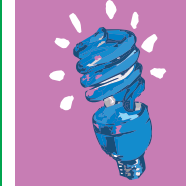
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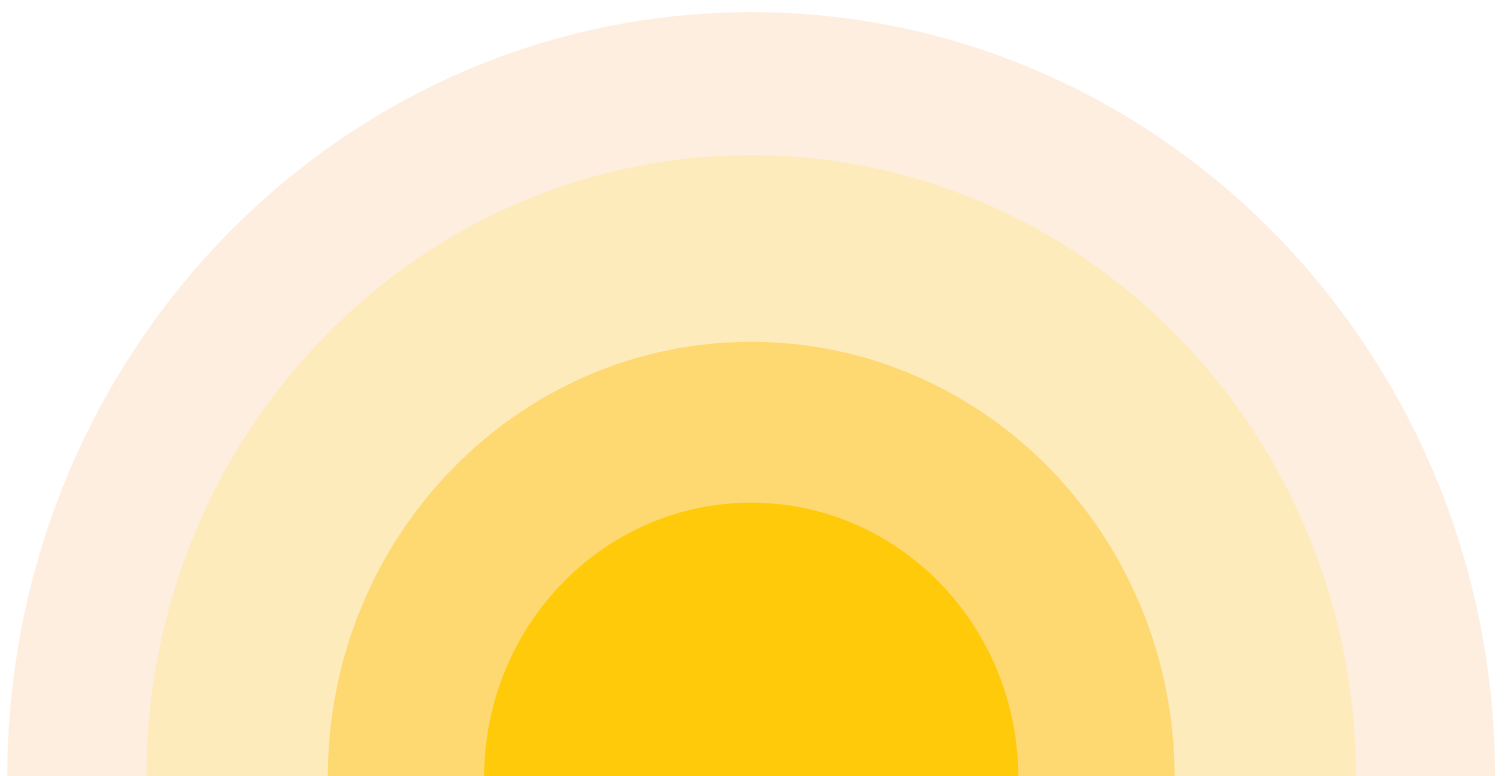
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Fixing the **CLIMATE** with ICTs

A Guide to communicating the role of technology
in addressing Climate Change challenges





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Getting Climate-friendly for the Greater Good

As we get close to 2011, a year before the Kyoto Protocol expires (and is refreshed or replaced); it becomes critical to take a close look at the political and economic dimensions shaping the global debate on climate change. Most developing countries have a common stand: the rich world must shoulder its responsibility for fixing the climate. After all, “almost all greenhouse gases that have accumulated over the past two centuries, and are now heating up the planet, came from the chimneys and exhaust pipes of the rich world.” (*The Economist*, June 7, 2008)

The Protocol recognizes that economic development and poverty eradication are overriding priorities for developing countries. Yet as developing countries like China, India, Brazil and Indonesia churn out greenhouse gases faster than ever, America defers cleaning up its act.

Where does this leave the future of our climate?

Scientific evidence and projections have pointed out repeatedly the challenges of climate change facing the world, and the need to mitigate and adapt to short, mid, and long term climate stabilization. The fourth concise and sober *Intergovernmental Panel on Climate Change (IPCC) report – the Summary for Policy Makers* argues strongly in favour of stepping up action on adaptation and reducing greenhouse gas emissions alongside the economic costs of a transition to a low carbon society.

The time has come to wake up to the problems of climate change. Even India, China – seen by many as the biggest emitters of carbon-dioxide – can no longer afford not to be climate-friendly.

Information and Communication Technologies can provide a plethora of solutions to mitigate and adapt to the adverse impact of climate change, and in the transfer and exchange of knowledge. At the same time, the ICT industry – also a source of GHG, and cited as a part of the problem – needs to keep a watch on its carbon emissions to contribute more towards the solution.



Adapting: How to acclimatize?

The 2008 UN FAO Food Security Summit calls for more investment in agriculture, and increased assistance for developing countries, in particular the least developed countries and those most negatively affected by high food prices. It also advocates more dialogue on biofuels and their relation to household food security.

Climate change can also exacerbate social inequities, making it tough for the poor and vulnerable to learn and adapt to its impacts and threats.

Although history shows that households potentially have latent adaptive capacity, lack of information at grassroots about anticipated extreme weather conditions and non-participatory national policies can impede their decision making and consequently, their adaptive behaviour and capacity.

To tackle vulnerability of rural settings, scientific assessment of rainfall, floods and droughts and agricultural advisories should be conveyed to local people in local languages through appropriate community and social media.

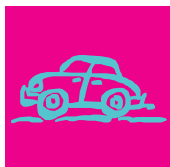
Some also argue that there is need to start thinking of village level infrastructure that can bear the adverse impact of climate change – both for adaptation as well as mitigation strategies.

Good governance can integrate risk management and adaptation by mainstreaming climate change into planning at all scales and levels. Responsible robust policy measures can help enhance the resilience of small and marginal producers through flexible financial mechanisms. The linkages between credit and insurance in the wake of risks and uncertainties involved also need to be debated.

Last and not the least, improving forest management and maintaining biodiversity is the key to sustainable future production.



Carbon Capture: Mitigation with ICTs



Most positive effects of ICTs in reducing GHG emissions are likely to result from the use of ICTs to increase the efficiency and flexibility of energy production, distribution and lifestyle consumption; and a reduction in the carbon footprint of the ICT industry itself.

The question here is: How do we decouple emission from economic growth?

According to a McKinsey study, 44% of the CEOs worldwide admit that climate change is not a significant item on their agenda. At best, the issue is occasionally considered when managing corporate reputation and brands, developing new products, or even managing environmental issues. The challenge is to make managers reposition themselves in a low carbon landscape.

Profit functions and strategies need to incorporate the transition to low carbon technologies and capture carbon trading. Designing products from carbon-efficient raw materials, better insulation and energy efficient lighting systems are integral to such efforts.

Companies have to quickly realize that new rules of the games need to be debated, written and agreed upon. Concerted investment towards Business Process Reengineering (BPR) can help tackle the efficiency paradox of new technology and align corporate sector goals with sustainable models. Next generation energy consumption for next generation technologies need to be figured out.

There seems to be a large hiatus in the levels of orientation and commitment to climate change mitigation between those at the top and middle level corporate ladder and those placed at the plant and/or factory levels. Suitable technical training may be required for addressing this gap.

In many ways, the need is to migrate ideas from think tanks to streets and factories.

Climate Exchange: Knowledge creation & diffusion

ICTs have the potential to play a role between advocates of change, practitioners of change and local communities by disseminating knowledge, and importantly, translating that knowledge into simple and intelligible messages at the community levels to raise awareness.

Knowledge exchange is critical to enhancing the resilience of production systems; processing micro level adaptation measures and strategies; mainstreaming energy efficient technology in the SME sector; capturing grassroots knowledge and best practices; and generating discussions at the highest levels both nationally and globally.

Simulation exercises on impact of climate change if translated and disseminated can be useful. There is also need to exchange experience on biofuels technology, norms and regulations and to foster a coherent dialogue.

Knowledge exchange also dictates the need to put data and relevant information at one place – a repository of information needs – with gradations aimed at varying categories of audience and stakeholders.



Our Footprints, Our Future: A Fact box

- ▶ The Himalayan glaciers will disappear in 20-30 years.
- ▶ Assuming global temperature rise of 4.4°C, India's agricultural output will fall by 30-40%.
- ▶ OECD and FAO projections tell of volatile agriculture prices over the next decade.
- ▶ Tropical countries will become net importers of cereals from countries in temperate zones.
- ▶ IPCC warns 35 million refugees will flee Bangladesh's flooded delta by 2050.





Climate Savers: Some examples of ICTs

- ▶ Arid Lands Information Network's (ALIN) Community Knowledge Center (CKC) in Kenya documents local knowledge on climate adaptation practices from the grassroots.
- ▶ ICRISAT's integrated climate risk assessment and management system uses remote sensing and GIS techniques to study rainfall patterns and accordingly prepare advisories for poor farmers in drylands of Asia and sub-Saharan Africa.
- ▶ The Energy and Resources Institute (TERI) and Swiss Development Cooperation (SDC) have collaborated to provide technical assistance to the Indian foundry industry to develop energy efficient and pollution control technologies.
- ▶ The African Radio Drama Association in Nigeria informs small-hold farmers of climate change adaptation measures and strengthens their capacities to mitigate the impact upon their livelihoods.
- ▶ UK's Department for International Development (DFID) and Department for Environment, along with other partners have developed a product 'Climate Change in Our World' on Google Earth, to show users how climate change could affect the planet and its people over the next century.
- ▶ Development Alternatives has developed a Personal Carbon Emission calculator in the form of an interactive CD as part of its CLEAN-India program for distribution among the youth.
- ▶ In Egypt, private sector companies are helping fund telecenters in rural areas to raise awareness on environmental issues and engage in preemptive action targeting the adverse impact of climate change.
- ▶ Columbia University's Earth Institute has developed a state-of-the-art online resource for farmers in Uruguay that helps them gauge climate risks and make decisions on where, when and how to grow crops.
- ▶ ICT networking platform Rural Community Carbon Network (RCCN), developed by rural/net UK and Carnegie Rural Community Development Programme, helps in raising awareness, information exchange and collaborative action for reducing carbon emissions in the developing world.
- ▶ Multi-stakeholder networks like the recently held CNN Future Summit: Saving Planet Earth facilitates speedy dissemination of information and knowledge.

Working Together: Activism in partnerships & networks

Multi-stakeholder networks and ICT make a powerful combination for accelerating response to the challenges of climate change. ICT based platforms allow quick mobilization of ready and willing partners to work together; and permit knowledge to multiply exponentially in terms of reach and richness.

ICTs can help create cross-sectoral alliances for improving institutional and grassroots capacity, and bring greater coordination between governments to enhance disaster preparedness through technological solutions.

ICTs can facilitate activism towards flexible and pro-poor policy, development assistance and increased climate change funds directed to increasing the resilience of groups, communities and regions.

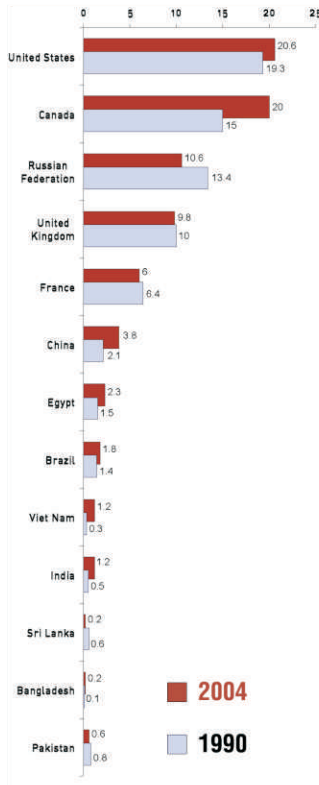
Speaking of partnerships, importantly, both rich and poor countries need to work together in strong binding action to save the climate for the common greater good.

This advocacy guide has been sourced from the Global Knowledge Partnership (GKP) Forum on ICT and Climate Change, 20 May – 9 June, 2008



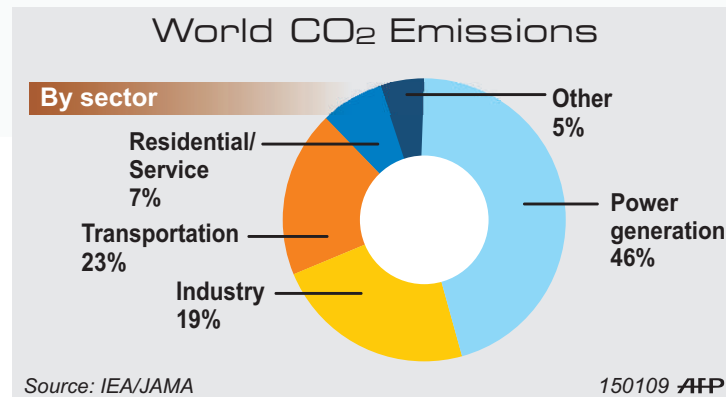
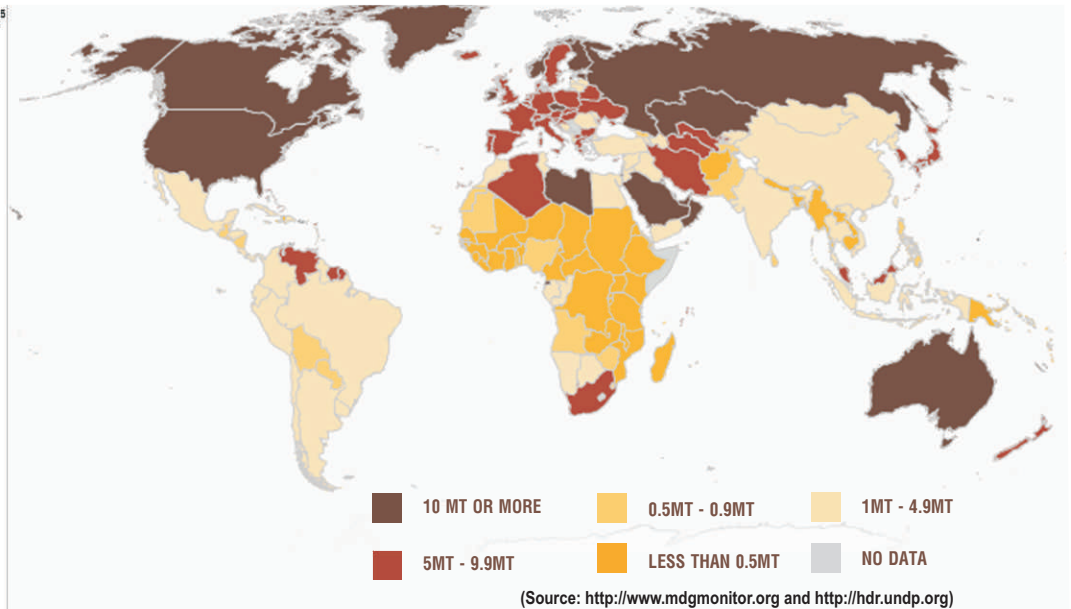
Rich Countries Deep Carbon Footprints

Carbon Dioxide Emission (CO₂), Metric Tons of CO₂ per capita (CDIAC)



CO₂ Emissions

(t CO₂ per capita)



Global Knowledge Partnership (GKP) is the world's first multi-stakeholder network in the area of ICT for development. GKP connects public and private sectors, civil society groups and international institutions to unleash the power of knowledge through Information and Communication Technologies to foster sustainable development.

OneWorld South Asia (OWSA) is the South Asian centre of the OneWorld International Foundation that aims to use the democratic potential of Information and Communication Technologies to promote sustainable development and human rights in the region. OWSA believes new technologies and a collective pool of knowledge can help build adaptation and mitigation efforts that holistically address both development and climate change challenges.

