The Montreal Climate Change Conference and the New Significance of the Kyoto Protocol

Rev. John Brinkman, M.M.

The United Nations Framework Conference on Climate Change (UNFCCC) met in Montreal from November 28—December 9, 2005. After an all night session that concluded on December 10 at 6:45 a.m., the final gavel completed the work of the Conference of the Parties serving as the Meeting of the Parties[1] (COP11 and COP/MOP1) in its first decisive session since the Protocol entered into force. [2]

The task of the Montreal Conference

The Montreal Conference faced a pivotal and daunting task: to put into place a framework for green house gas emissions reduction that would incorporate the cumulative decisions of the UNFCCC and its subsidiary bodies since the 1997 Kyoto Conference.[5] All the various rules for compliance, the procedures for verification and the decisions to insure a period of ongoing commitment for emission reductions, i.e. all that had already been laid down by the Conference of the Parties in its sequence of meetings over the years were now subject to confirmation in Montreal.

It seemed at first a tenuous hope that all would be confirmed and that nothing of substance would be altered in any significant way. Forces that diametrically opposed any international agreement on climate change mitigation were still in play. The efforts to cast doubt on the credibility of the science of climate change continued unabated. There was a determined effort to differentiate the wording that governed the Protocol over-against the wording of the Convention. The intent of this maneuver was to create discontinuity in concept and in implementation vis-à-vis the Climate Change Convention itself and the Kyoto Protocol that emerged from its on going discourse. There were innumerable proposals presented as "genuine" efforts to promote compromise and an all-embracing conference consensus which would in the final analysis weaken the Protocol and leave the Convention without the framework necessary for effective implementation.

A critical phase of the negotiations was reached when the conference High Ministerial session loomed on the horizon. Three major agenda items remained outstanding. These three issues concerned Article 2 (the Annex 1 process), Article 3.9 (future commitments), Article 9[6] (conference review) and they had been left to the December 6-9 meetings of the High-level segment to resolve.

Two significant events emerged on December 6. A proposal by

Montreal: A cultural historical reference

The 1642 founding of Montreal provides us with a moment of reflection that may well situate us more firmly into the task at hand. For in current environmental resolve, humanity must come to terms with the state of human development initiated in no small manner in the seventeenth century.

The main intellectual current of the time was driven by the new mathematical comprehension of the natural world. Galileo's *Discourses and Mathematical Demonstrations Concerning Two New Sciences* which would provide the energy to inspire new discoveries and the genius to inform a new sense of physics was in academic publication in 1638. At the same time, Rene Descartes' *Discourse on Method* was published in French in 1637. For Galileo, the mathematical discovery affirmed divine majesty inscribed in the stars. "…the glory and greatness of Almighty God are marvelously discerned in all His works and divinely read in the open Book of heaven. Within its pages are couched mysteries so profound and concepts so sublime that the vigils, labors and studies of the most acute minds have still not pierced them, even after continual investigations for thousands of years."[3] Descartes asserted that the human mind was the only means of attaining

continued on page 2

the Conference President Stephane Dion was issued to the Conference of the Parties concerning long–term cooperative action. Its tone was conciliatory and its goal was compromise. It met complete opposition from those who refused to discuss a future that even hinted at Protocol cooperation. It was thought too conciliatory by those who felt that the Protocol should be the way forward.

On December 6, Canada's Prime Minister H.E. Paul Martin addressed the assembly. His presentation may well be considered an historic statement. Depending on the progress and outcome of the remaining three days of the deliberations, his words would either be remembered as a harbinger of conference resolve to substantially put the Kyoto Protocol into effective force or be seen as a call to action unheard in the tragedy of a vision failed. The following excerpts pinpoint the troubling divisions that remained obdurate despite so much conference progress.

> "… The time is past to debate the impact of climate change. We no longer need to ask people to imagine its effects, for now we can see them. …Climate change is a global challenge that demands a global response, yet there are nations that resist, voices that attempt to diminish the urgency or dismiss the science – or declare, either in word or in indifference, that this is not our problem to solve. Well, it is our problem to solve. We are in this together.
>
> We are called here to protect our planet. …If we fail to meet the challenge of climate change…What words will be spoken of the people of our time – that we were delivered a great inheritance, that we took it all for granted, …that we knowingly neglected the consequences of our own ambition?
>
> That is one future, but it need not be our future. Together, we must strive for nothing less than a legacy of responsibility and resolve. Together, we can turn human ingenuity to the noble purpose of serving generations yet unborn — repairing, not damaging; helping, not hurting; doing what we can, all we can, to restore, renew, return to balance. The challenge is ours. So is the opportunity."

The conference would subsequently conclude in a successful manner. Of the three remaining issues tackled by the High-level segment, Article 3.9 might well be noted to indicate the subtlety that divided success from failure in the multiple issues during conference debate. This article: "Dialogue on long-term cooperative action to address climate change by

truth and matter was reduced to mere mechanism.[4] Nature was stripped of any notion of the numinous. There was nothing in the natural world that would intimate divine presence. Under this persuasion, the primary human disposition toward nature became increasingly one of use.

It was an age of intellectual ferment. It was a time alive with remarkable insights that would define the meaning of human progress and profoundly impact the New World. The times engendered exuberance for discovery that would become part of the character of New France explicated in such explorations as those of Fr. Jacques Marquette and Louis Joliet, the first generation of Canadians. Very much a part of this age was the May 6, 1642 founding of the island settlement of Ville-Marie by Paul de Chomedey, sieu de Maisonneuve. This foundation was essentially inspired by a sense of the sacred. There existed an aggregate of dwellings, a chapel and the first hospital, Hotel-Dieu by 1645. Soon after the 1653 foundation of a school for girls by Marguerite Bourgeoys, the Messieurs de Saint-Sulpice took charge of the education of boys. It was largely through the efforts of this society of priests that the thirteen native languages were transcribed and preserved.

Perhaps in the initiation of Ville-Marie, we might find a certain vision that would radically dispute any uncritical positive regard for human development over-against the natural world.

continued on page 3

enhancing implementation of the Convention" was literally the hinge that would determine future collaboration.

In this article confirmation, the conference resisted pressures to eliminate the word, "long-term," in the paragraph 1: "Resolves to engage in a dialogue…to explore and analyze strategic approaches for [long-term] cooperative action to address climate change…" It also resisted the exclusion of the word "developing" in paragraph 5: "Further agrees that the dialogue should identify approaches which would support, and provide the enabling conditions for actions put forward voluntarily by [developing] countries that promote local sustainable development and mitigated climate change in a manner appropriated to national circumstances…" The absence of "long term" would have diminished the impetus to negotiate Kyoto II by 2008. It would have short termed and short-circuited the very process of installing further emissions reductions in the second commitment period. Absence of "developing," as the modifier for countries, would blur the "common but differentiated" basis for cooperation specific to developed and developing countries and would infer that compliance would best be served by voluntary modes of participation, a pre-Protocol misconception.

Such a vision would foster a more integral human presence to phenomena best sustained by the recognition of the sacred dimension of the natural order of things. It is increasingly clear that such a vision is necessary for the intellectual and imaginative effort demanded for effective environmental resolution. In the eight years of the Kyoto Protocol discourse, there have been a number of competing paradigms of progress and visions of development that informed the political debate. It was appropriate that the Protocol that came into force on February 16, 2005 was in large measure put into effect and into full force on December 10, 2005 in Montreal.

The importance of the ongoing dialogue safeguarded by this article is illustrated by the introduction by Papua New Guinea of a proposal on avoiding deforestation in developing countries[7] at Montreal. Ever since the November 13-28, 2000 Hague Conference, the decision to introduce carbon-sequestering forests[8] as "sinks," and since deforestation was deemed less calculable for emissions/removal estimates and carbon credits than either afforestation or reforestation; the vast carbon emissions from deforestation remained outside the Protocol terms of reference. The PNG intervention proposed a way for countries to save their forests with the incentive of gaining carbon credits. The COP 11 embraced the proposal and tabled it for consideration by SBSTA (Subsidiary Body for Scientific and Technological Advice) for prompt consideration at COP 12. Hence, we can see the value of dialogue on long-term action to address climate change has an immediate and clear advantage.

The various forces that conspired to have the COP 11/MOP1 Conference finally gavel through the requisite measures and documents that confirmed the eight-year legacy of UNFCCC work and proposals are significantly complex. They might best be defined under the categories of science credibility, climate change urgency and political expediency.

Credibility The science input that clusters around the UNFCCC and SUBSTA meetings constitutes a formidable presence.[9] This presence has highlighted the cumulative significance of data, the validity of climate change observations and their attribution to human causes[10]. The followings are recent indices of FCCC policy-science intersect.

At the 1998 UNFCCC COP 4 Buenos Aires at a panel on "Abrupt Climate Change," Stefan Rahmstorf from the Potsdam Institute for Climate Impact Research stated that all models for the years 2000-2001 showed a decline in hydrological cycle and a weakening in the North Atlantic circulation. It was only at the Montreal preparatory May 19-27, 2005 SBSTA meeting in Bonn that Peter Wadams of Cambridge University noted that his Arctic Research observations disclosed a definite decline in the number of the "chimneys" in the Labrador Basin. Chimneys describe the mechanism of plunging columns of cold dense waters prior to their southward flow in deep ocean currents. This conversion of the northern

flow of warm saline surface water drives convection and circulation. Further research indicates that the injection of fresh water from glacial melt water would weaken the north-south density contrast and further dissipate this exchange engine.[11]

Impacts of a Warming Arctic, Arctic Climate Impact Assessment (ACIA) [12] presented by a panel of ACIA scientists at COP 10 was revisited in a Montreal update presentation by Robert Corell, the U.S. Chair of the International Arctic Science Committee. "Arctic average temperature has been rising at almost twice the rate as the rest of the world in the past few decades. Widespread melting of glaciers, sea ice and rising permafrost temperatures present additional evidence of strong arctic warming.[13] …These arctic changes will, in turn, impact the planet as a whole."[14] The earth's repositories of cold, intimate to the flow of oceans, diminishes; the polar interplay of oceanic and terrestrial life declines.

Research now admits of high probabilities in the risk of anomalous events. Kerry Emanuel presents statistical evidence that hurricanes are affected by global warming in his August 4, 2005 *Nature* article, "Increasing destructiveness of tropical cyclones over the past 30 years." His research links hurricane intensity with the long-term rise in ocean temperature and an increase in atmospheric water vapor.[15] Previously like so many scientists in the field, he had asserted that no firm link could be made. Climate change warming presents compelling statistical evidence based on the observation of patterns and conditions over significant periods of time. The influence of man on specific weather events is now the subject of credible examination.

Urgency Although there appears in the vocabulary of presentation, terms such as "thresholds," and "tipping points" indicative of the possibility of non-linear, abrupt climate change; the actual observed effects of "gradual" change are compelling in their urgency and are precipitous enough. The real urgency is to face the inevitable effects of the present on-going levels of emissions and to mitigate future emissions to avoid dangerous climate change,[16] to achieve the ultimate objective of the Convention stated in Article 2: " …to achieved…stabilization of Greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change."

The real work is not to break through bellicose debate but to face the brutal realities of the current course of change. Because of the inertia of the earth systems, sea levels would continue to rise, the risk of heat waves would still increase, the global temperature would continue to escalate; should we stop GHG emissions presently. To keep the level of warming to two degrees Celsius above the temperatures of pre-industrial GHG concentrations will take serious effort.

Should this 2.0 C be the goal, current analyses[17] show that many ecosystems are vulnerable to substantial damage at or above 1.5-2.0 degrees (Leemans and Erckhout, 2004). There also would be serious risk to biodiversity (Cowling et al, 2003), and a 2-2.5 degree level would pose severe regional risks to food production. At a one-degree increase, world water shortages would face additional risk after 2020. In a rise of 1.5 to 2.5 degrees, non-linear threshold risks may exist. Above two degrees, a high risk factor would prevail for all time periods.

The cumulative work of the framework conference defines our current endeavor as one that must focus on staying within, if you will, "a safety zone" below a two-degree rise in temperature. It notes that there is a "certain point in time" after which it may be too late to stop debilitating climate change effects. It offers the schedule now in process to engage these exigencies. Article 9 of the Protocol mandates that the COP / MOP meet periodically to review the Protocol in light of best available scientific information. It further specifies that the first such meeting will be held at the second session of the COP / MOP. Hence, the very next 2006 COP 12 / COP-MOP 2 must undertake such a review. At this juncture, the Convention and Protocol frame the avenue for political expediency.

Expediency It is quite frankly a political decision as to how much climate change will be allowed. The Kyoto Protocol has given the human community an indispensable instrument to manage such change. Yet the hinge of climate change abatement will depend in large measure on the UNFCCC process to negotiate Kyoto II by 2008. This must entail deeper and broader emission reductions for the 2013-2017 second commitment period. The conference must put in place a wide range of actions for developing countries to connect to the Kyoto process with particular emphasis on CDM Projects. Sustainable Development Policies and Measures (SDPAMS) must be the order of the day for developing, fast-paced developing countries, e.g., China and India, and developed nations. Efforts must be made to insure effective connections with the Kyoto carbon market with particular emphasis on the civil society movements in nations not participating in the Kyoto Protocol, i.e., the United States and Australia. Expand Adaptation action and funding with particular regard to the Least Developed Nations and Small Island States. Action must be taken on deforestation based on national deforestation emissions. The on-going UNFCCC work focused on the implementation of Kyoto Protocol is a matter of urgency in need of enlightened political expediency.

Final reflection

The COP 11 Inter-religious convocation took place at the monumental Oratory of Saint Joseph, a place frequented by members of the Muslims community for the honored role assigned to Joseph in the text of the Qur'an. Comparatively, Christian scriptures tell us little about the Patron Saint of the Universal Church. However, the gospels confirm that Joseph was a man who believed in his dreams.[18] In an article and subsequent book entitled *Dream of the Earth*, Thomas Berry made clear how intimate are our dreams to the process of the Earth, the matrix that inspires the creativity of wonder, the exhilaration of challenge, the contemplation of beauty.

These writings also warn us that our dream vision can be destructive if we are not in touch with the deeper dynamics of things. We are admonished in our espousal of a prevailing counterfeit dream. "The great difficulty of our times is our inability to awaken out of this cultural pathology. Thousands of articles have been written and a long list of books could be compiled concerned with this commitment to progress and to the sense of unlimited growth that it evokes. And yet its control over the human venture remains more vigorous than ever." It is sobering to read the observation and indictment: "Whatever the validity of the original vision of an unfolding spiritual progress, this vision has proved too much for humans to manage in any disciplined way."

It is difficult to be reminded of such spiritual failure at a time when the unspoken fear among the various delegates has always been that we may be too late to avoid even the most daunting effects of climate change. It is particularly difficult when such fears find a clear if not welcomed voice in recent print. The February 2006 publication *The Revenge of Gaia* by James Lovelock makes precisely this case. These are sobering times.

It may be a small consolation and a greater challenge to know that the same author who would commend us to our dreams would write in the preface of a more recent book concerning Thomas Merton, the following affirmation that our sense of the sacred can provide the genius and energy demanded by effective environmental resolution.

"An absence of a sense of the sacred is the basic flaw in many of our efforts at ecologically or environmentally adjusting our human presence to the natural world. …There is a certain futility in the efforts being made—truly sincere, dedicated, and intelligent efforts—to remedy our environmental devastation simply by activating renewable sources of energy and by reducing the deleterious impact of the industrial world. The difficulty is that the natural world is seen primarily for human use, not as a mode of sacred presence primarily to be communed with in wonder and beauty and intimacy. …The deep

psychic change needed to withdraw us from the fascination of the industrial world, and the deceptive gifts that it gives us, is too difficult for simply the avoidance of its difficulties or the attractions of its benefits. Eventually only our sense of the sacred will save us."[19]

John T. Brinkman, M.M.[20] *is a historian of religions whose recent work has focused on ecology and religion. He has attended the UN Framework Conference on Climate Change since the 1997 meeting in Kyoto.*

NOTES:

[1] The Montreal meeting is the eleventh session of those nations that signed on to the on going process of Kyoto Protocol. The text of the Protocol was adopted on 11 December 1997. This text was open for signature from 16 March 1998 to 15 March 1999. The signatories compose the (COP) Conference of the Parties [to the Convention]. Those countries that have ratified the Kyoto Protocol constitute the (MOP) Member of the Parties [to the Protocol.] Since the ratification of the Kyoto Protocol by the Russian Republic and since the Protocol's coming into force on 16 February 2005, the Montreal conference is the first session of the Cop/Mop. Meetings of the COP and the meetings of the COP/MOP are distinct in the UN FCCC. Non-signatories of the Kyoto Protocol are observes to but are neither voting members nor active participants in the COP/MOP sessions.

[2] The Protocol entered into force with the ratification of the Kyoto Protocol by the Russian Republic on February 16th, 2005 – the ninetieth day after at least 55 Parties to the Convention, incorporating Annex 1 Parties, i.e. developed nations, which accounted in total for a least 55% of the total carbon dioxide emissions for 1990 from that group. As of November 2005, 157 states and regional economic integration organizations have deposited instruments of ratifications, accessions, approvals or acceptances. The total percentage of Annex 1 Parties emissions is 61.6%.

[3] Dava Sober, *Galileo's Daughter, A Historical Memoir of Science, Faith and Love. p 69-70..*

[4] Rene Descartes (1596-1650) was the mathematician and philosopher whose formulation of a rational scheme of knowledge constituted a liberation of philosophical thought from the confines of tradition bound Scholasticism. He has been called by Hegel and others the Father of Modern Philosophy. He presented a thoroughgoing dualistic philosophy in which he radically distinguished mind perceived as indubitable from matter perceived as comprehensive on the basis of purely mechanistic principles. For an outline of the *Discourse on Method,* See Encyclopaedia Britannica, 15th Edition , 1978 p..600.

[5] The Kyoto 1997 COP 3 agreed to the Protocol that would commit developed nations to commit to emissions reduction and put in place the flexible mechanism to assist such Annex 1 counties in meeting their national targets. The 1998 Cop 4 put forward the Buenos Aires Plan of Action, i.e., the agreed on the process for finalizing the rules and operational details of the Protocol. The 2001 COP presented the Marrakech Accords which consisted of a package of draft decisions on many of the details of the flexible mechanisms, land use and compliance The 2003 Milan COP 9 put forth agreements on Good Practices essential to implementation of the Protocol. The 2004 Cop 10 agreed to the Buenos Aires Programme of Work on Adaptation and Response Measures. Much of this work awaited final adaptation by this 2005 first COP/MOP in Montreal.

[6] Article 9 mandates that the COP/MOP meet periodically to review the Protocol in light of best available scientific information. It further specifies that the first such meeting will be held at the second session of the COP/MOP. Hence, the Nairobi 2006 COP 12/COP-MOP 2 must undertake such a review. Many of these agreements and guidelines await hat should be adopted by the COP/MOP.

[7] This 30 November proposal is found in document FCCC/CP/2005/MISC.1.

[8] Forest Land, Cropland, Grassland, Wetlands, Settlements, and Other Land are the consideration for emissions factor and emission/removal estimates under LULUCF. See FCCC/SBSTA/4/Add.1 29 July 2005.

[9] The publication: *Climate change and the greenhouse effect, A briefing from the Hadley Centre- December 2005* illustrates the type of assistance offered by the Met Office Hadley Centre over the years in their UN FCCC participation. This particular work offers in a presentation of graphs and concise explanations, some of the research on climate change projections that were refined during the course of UN FCCC presentations and debate. The annual climate change conference provided a schedule for focus on the measure and method of issues related to the Protocol. www.metofice.gov.uk

[10] Ibid. On pages 28-29. two graphs present the datum that "recent warming can be simulated when man-made factors as included." Accompanying commentary references the works: G.J. Jenkins et alia, "External control of twentieth century temperature variations by natural and anthropogenic forcing," *Science*, 15, 2133 –2137, 2000; Scott, P.A., "Attribution of regional scale temperature changes to anthropogenic and natural causes." *Geophys. Res. Lett.*, 30 (14), CLM 2.1 to 2.4, 2003; Karoly, D.J., et alia, "Detection of a human influence on North American climate, *Science*, 302, 1200-1203, 2003.

[11] Ruth Curry, "Dilution of the Northern North Atlantic Ocean in Recent Decades," 17 June 2005 Vol. 308 *SCIENCE,* pp. 1772-1774. Two satellite surveys show that warming air and water are causing Antarctica to lose ice faster than it can be replenished by interior snowfall. One survey was led by NASA scientist H. Jay Zwally and measured the height of ice sheets in Antarctica and Greenland over the decade ending in 2002. This work is published in *The Journal of Glaciology*. The other survey used NASA satellites and looked at changes from 2002-2005. This study was led by Isabella Velicogna and scientists at the University of Colorado and was published in the March 2, 2006 issue of *Science*.

[12] This four-year study of Arctic warming by the Arctic Council under the Chair, Gunnar Palsson of Iceland was initiated in Barrow Alaska in October 2000 by representatives of eight nations whose territories encompass Arctic regions. These nations included Canada and the United States.

[13] Decreases in snow cover, mountain glaciers, and Arctic sea ice, and a rise in the mean sea level is noted in 2001 IPCC, B, Chapter Five of "Climate Change 2001: the Scientific Basis," p.2 and thereafter in subsequent reports leading up to and including the Nov. 10, 2004 ACIA Report of the Arctic Council

[14] *Impacts of a Warming Arctic ACIA Executive Summary*, p.14.
[15] Kerry Emanuel, "Increasing destructiveness of tropical cyclones over the past 30 years," *Nature* August 4, 2005 Vol. 436, Issue 7051, pp. 686-688.
[16] See *Stablilising climate to avoid dangerous climate change – a summary of relevant research at the Hadley Centre*, January 2005 prepared by Geoff Jenkins et alia. www. metoffice.gov.uk

[17] Much of the data cited here was presented by Bill Hare, Visiting scientist, Postsdam Institute for Climate Impact in the COP 11 Greenpeace side event panel: "Yellow River at Risk." See "Yellow River at Risk, An Assessment of the Impacts of Climate Change on the Yellow River Source Region" a Greenpeace 2005 publication by King Yongjian, Liu Shiyin, Xie Changwei. Zang Yong, Wang Jian. Among the its wide references to environmental degradation in the area, this work documents the ice and permafrost melt and the retreat of glaciers, "the solid water reservoir" that feeds the Yellow River region. www.yellowriversource.org.

[18] Matthew: 1, 20-24; 2, 13 and 2, 19-21.

[19] Kathleen Deignan, *When the Trees Say Nothing: Writings on Nature* (Sorin Books, Notre Dame, In. 2003) pp.18-19.

[20] Contact reference: Commission on Ecology and Religion, comecore@yahoo.com