WORLD STUDENT
Environmental Summit
VICTORIA 2009

Outcomes Report

Who we are:

Summit synopsis

In 2008 the inaugural World Student Environmental Summit took place in Japan at Doshisha University. The summit was organized by students with the intention to connect with G8 leaders and formulate a global student proposal to enter decision making. When the students assembled, there was a realization that there were opportunities to create positive change on many levels. In order to maintain connectivity between annual summits, the International Student Environmental Network (ISEN) was founded.

In June 2009, the 2nd annual World Student Environmental Summit (WSES) took place at the University of Victoria (UVic) in British Columbia, Canada. Over fifty international student delegates from eighteen countries participated.

The *outcomes report* was created to summarize all discussion and generate recommendations for students, university executives and policy makers. The *outcomes report* is a precursor to a detailed final student proposal which will be focused towards implementable policies reinforced by case studies. The final detailed student proposal will be presented to delegates' universities, the UN and the G8.

The mechanism for discussion was the "3C Principle" which consists of Create, Conserve and Collaborate. The "3C Principle" framed the three themes discussed: Energy, University Sustainability and Global response. The discussion rooms used modified "open space technology" to encourage productive brainstorming. Besides using a progressive discussion framework, the 2009 Summit created relationships with organizations such as WikiEarth, an online database that categorises information both geographically and spherically in order to break academia and national barriers for collaborative research. Wiki Earth uses a three-dimensional globe to display data in diverse fields of study so that researchers will be able to interrelate findings that were obscured previously. Wiki Earth will help to understand the complex dimensions of climate change in a collaborative online forum. (www.wikiearth.net)

Our Mission

*To **Educate, Empower and Engage** the next generation of world leaders*

Educate

The 2009 WSES brought together experts in the science of, and solutions to, addressing climate change. Experts in curricula change, energy technologies, sustainable development, global ecosystems, university and global policy, resource security and student engagement were also present to assist students in building comprehensive solutions to climate change.

Mr. Marc Stoiber, founder of "Change", explained the power of marketing and advertising and the opportunity that businesses have in moving towards a more sustainable profile and means of operating.

Dr. Andrew Weaver, author of "Keeping Our Cool: Canada in a warming world" and a lead author in the IPCC, taught delegates about the science of climate change; what our greenhouse gas emissions have committed the world to so far; and what contraction and convergence theory offers the developing and developed nations divide.

Mr. Guy Dauncey, author of over nine titles including "The Climate Challenge: 101 Solutions to Global Warming" and renowned speaker, presented the delegates an overview of some of the most effective actions, applications and projects addressing climate change.

Ms. Leith Sharp of Harvard Sustainability taught delegates about systems thinking and how to turn environmental ventures into profitable ventures in a university. She addressed the social rationale surrounding breaching the barriers of policy present within academia; symbolic of society in general she described academic institutions as proposed platforms to radiate social change with alternative methods and ways of viewing our systematic social behaviours; she then invited faculty and all students to become agents of change.

Dr. Ana Maria Peredo director of the Institute for Co-operative Studies spoke about the need to have a community based comprehensive plan to address climate change that included economic disparity, environmental degradation and social justice.

Dr. Rajendra K. Pachauri, chair of the Intergovernmental Panel on Climate Change and Nobel Prize Laureate, spoke to the necessity for change at the university level and inspired delegates to engage in the fight against climate change

Dr. Mukesh Kapila, Special Representative to the Secretary General of the International Federation of Red Cross and Red Crescent Societies and adviser to the World Bank on climate change issues, addressed human impact of climate change on the world's poorest people and discussed fairness and justice in the global response to climate change including how to mobilise people "to do not just our best which may not be good enough, but to succeed in doing what is necessary."

Empower

Delegates completed The Natural Step's online Sustainability 101 course and exchanged opinions and project ideas through the ISEN discussion forums to prepare for high-level discussions at the 2009 WSES. During the 2009 WSES, delegates were empowered to create their own discussion topics through open-space forums and submitted suggestions for the 2010 summit.

Engage

Delegates became acquainted with some of the leading experts in university sustainability and climate change. The University Sustainability Panel with Leith Sharp, Jamie Biggar of the Common Energy Society and the GoBeyond Project and Jill Doucette of Synergy Enterprises, gave delegates the opportunity to ask specific questions and interact with one another. Discussion sessions were accompanied by short presentations from experts such as: David Blades, professor of English at UVic; Jill Doucette; Neil Connelly, director of campus planning and sustainability at UVic; Jamie Biggar; Nichole McGarry, co-founder of WikiEarth; Anthony Thompson, Natural Step representative; James Rowe, Political Ecology professor at UVic; Maeva Gauthier, member of Students on Ice; Anita Girvan, expert in cultural perspectives on climate change and Andrew Weaver.

This intimate interaction between experts and delegates fostered relationship building and strong understanding of critical topics. The delegates met the members of the 2009 WSES Steering Committee, who joined the discussion sessions, acting as advisors. The members were comprised of UVic's master's students, professors and administrative personnel. In discussion, delegates were given specific space to engage further with the ISEN and gain a better understanding of the network's visions and goals.

Our Outcomes

Energy

Create

Nuclear Power

- Cheap energy from nuclear inhibits other green ingenuity investments
- BRICK countries perceive nuclear as a cheap alternative to fossil fuel
- Nuclear not viable option because the sustainability of nuclear is still in question
- Lack of technology is a barrier towards clean energy

Bio fuels and Hydrogen

- Regional considerations must be made
- Usage of animal and food waste should be a priority
- Projects should not be undertaken without the involvement of the local people
- Hydrogen is excellent medium to store energy

Behavioural Change

- Use the polluters pay principal, that is to make the party responsible for producing pollution responsible for paying for the damage done to the natural environment
- Monitoring is needed for universities in order to gather data to identify areas of improvement for energy efficiency. Monitoring can create awareness of energy usage patterns and identify areas which need attention. The data can be also be used to create competitions between faculties or universities to further encourage reductions in energy usage
- Incentives! Offering “Green Grants” to universities with excellent energy performance may initiate reduced consumption. Generally, these should first focus on energy saving measures, efficient campus planning and reduced travel
- Change the way we think about waste. Generally, waste is viewed as a problem, not as a potential resource. We need to start closing the loops to our waste systems and find ways to use what waste we produce.
- Most represented universities could use specific cooperative education/mentorship/internship programs for environmental and social sciences that are integrated directly into the program.
- Honorary degree idea for industry leader’s award program. Universities pick out country clean energy leaders and award them.
- Let industry come to speak in the classroom .Students will become acquainted with how local and global industries operate.

Conserve

Growing Smart and "Getting off the grid"

- Government subsidies to help finance capital cost
- Policies needed to implement and encourage usage of clean technology
- Solar energy has many financial barriers, but is important in creating energy independence
- Universities should be primary sites for off grid innovation

Retrofitting – Making Existing Infrastructure More Efficient

- Universities should ensure they have sufficient infrastructure for bicycles
- Recycled materials should be used to create new infrastructure
- Taking a Systems theory approach to building will lead to sustainable outcomes

Collaborate

Between Universities and Faculties

- Universities should mandate a sustainability and climate change course for all students during their first or second year of schooling
- Universities must incorporate climate change knowledge into every department
- An integrated framework between faculties would help students and create freedom for them to explore different subjects within their studies
- Universities must make it easier for students to move in and out of different disciplines and combine majors from various faculties
- Students should encourage universities to work together to compare and gain knowledge about successful programs/projects
- More collaboration between undergraduates and graduates would benefit both. A mentorship model may be used here.
- More funding for undergraduate projects rather than focusing primarily on graduates; start the knowledge building process early
- Apply sustainability to all courses through small projects
- Implement a problem-based learning approach in classrooms where students read, analyze, discuss & solve

Between Academia and Industry

- Collaboration is important to ensure research is targeted towards specific relevant industrial regulations and processes
- There needs to be "Living laboratory" linked into curriculum and industry
- Case Example: Australia – Cooperative Research Centers; mix of university research, private industry and governmental bodies
- Bring industry leaders and dedicated alumni into the classroom to speak. University leaders should actively find industry leaders who are interested in being mentors

- Have graduate students who are conducting research within the energy industry speak to undergraduates, making them aware of their region's energy supply (not just for energy, but for all industry to motivate and educate undergraduates)

Community Owned Energy

- Need to invest in self-sufficient, self-reliant community energy co-ops
- Subsidization may increase if done on community, rather than individual, level
- Government regulations on new development- subdivisions, malls, condos, etc. to have more sustainable means of consuming and generating energy
- Encourage communities to invest in sustainable energy and sell excess - bring case studies and education to the community

Community Based Research

- Educating the community, allowing them to do research in their own backyard
- Look at alternative ways of doing research, beyond academic
- Localize the climate change issue by informing people about issues of climate change and sustainability within their own community
- Explain logic behind ideas to help community understand and justify the change
- Model the research around the community rather than modelling the community around the research

Civic Engagement

- Developing countries have the barriers of government corruption, fear and inability of people, and societal class to create nonprofit institutions that promote the use of clean energy
- Bring corporate education to NGOs and environmental/social education to business, bridging the knowledge gap.
- University seems to be the neutral ground between civil societies and government
- Creating awareness on campus/student initiated formal discussion
- Students contribute through research and grassroots education to society at large
- Universities should create more international developmental internships, which would put people out of their comfort zone, and provide a real understanding on international environmental issues

Creative and Fun Change

- Think differently – don't assume that your way is the best
- Effective NGOs actively engage with stakeholders in the communities where they operate to create locally-specific solutions. Listening to those who will be affected by the change

will be crucial to the project's success. Traditional foreign aid provides only band-aid solutions, which offers only short term benefits

- Case Study, Ethiopia: NGO introduced environmentally friendly mud bricks where refugees and locals alternate making mud bricks. An NGO listened to the people and found the root causes of their problems they created a solution to two problems – housing and tension between locals and refugees.

University Sustainability

Create

University Sustainability Policy

- Quantitative measures are needed to assure baselines are accurate. Qualitative measures should accompany the quantitative, accounting for societal impacts and communication streams. Qualitative measures need further development and research.
- An action plan should be contextualized to the culture and should include a stakeholder engagement approach to decision making.
- An action plan should include both short and long term goals, incorporating the systems approach.
- Short-term goals may include curricula additions, awareness building, speaking with other universities about issues and imposing waste management systems.
- Long-term goals may include revamping the institution's vision, funds-raising for projects and building synergistic partnerships.
- Universities with less support for these initiatives should start with small, easy projects to avoid being overwhelmed by the tasks ahead.

Curricula Change

- University students can create presentations and projects for high school students, educating them on environmental and social issues.
- Mentorship programs may be used to bridge university and high school students.
- Universities will find value in imposing flexibility and creating programs in which students are credited for independent environmental and social projects

Overcoming the Economic Barriers to Change

- Students are playing an integral role in convincing university decision makers to make value contributions to making their universities more sustainable.
- There are large capital costs to improve curricula, starting with short segments of curricula change and additions are important.
- Use the media to create awareness and build university morale in sustainability projects; therefore, helping brand the university which has indirect economic benefits

- Harness a body of student volunteers to carry out time intensive projects.

Main Points:

- A policy should include targets, goals and actions based on both qualitative and quantitative measures.
- Stakeholders such as students, faculty, staff,administration and community partners should be involved in the policy creation process.
- A policy should include short and long term goals using the systems approach.
- University and high school education must be addressed as a whole.
- Students need to learn how to present sustainability initiatives to university executives in an attractive manner
- Harness student engagement and revenue-positive projects to overcome the financial barriers to addressing sustainability at the university level
- Universities should create a long-term goal of becoming carbon-neutral within the IPCC's accepted effective time-frame

Conserve

Buildings

- There are two streams in addressing buildings: standards for the new and retrofits for the old.
- New buildings should aim for LEED accreditation; however, retrofitting older building to make their space more effective should be prioritized.
- Quality of materials should be set as a priority in order to minimize maintenance costs; thereby conserving finances and resources.
- Better management of buildings and the space within them is of utmost importance.
- Materials should be sourced locally and recycled wherever possible. Infrastructure for comprehensive recycling and encouraging sustainable transportation should be considered in the blue-print stage

Commons Area

- University gardens are strongly supported, as they produce sustainable food, promote teamwork, and deepen the connection between students and nature
- Location for commons areas should consider the facilitation of cross-disciplinary interaction and environmental conservation.

Transportation

- Transportation emissions for business travel should be offset at a cost to encourage change is behaviour associated with travel
- Universities should encourage their staff to combine trips and consider video conferencing. Incentives towards this shift may create momentum.

- Universities should invest in video conferencing systems
- Universities should connect with municipal leaders to make sustainable transportation accessible to students, staff, faculty and visitors
- Electric cars should be considered for the university vehicle fleet

Energy

- Funds saved by energy savings should be invested into green projects
- Education needs to be developed so people understand the effect of their behaviour
- Challenges that reward energy/water conservation behaviour should be implemented (i.e.: dormitory competitions)

Products

- Post-consumer materials should be purchased wherever necessary
- Education about products and their life-cycles should be available to students
- All Universities should only provide Fair Trade, organic, local food to their students absconding from private suppliers that monopolize academia

University Knowledge and Curriculum

- Information relating to environmental education should become a part of a structured library resource
- There should be interdisciplinary education on sustainability and compulsory "Sustainability 101" course for all students
- Student groups need to find ways to engage university alumni using legacy projects, incentives, motivational speeches and online hubs
- Issues in knowledge sharing may include intellectual copyright laws; therefore, online academic, open-source hubs, such as WikiEarth will be important
- Knowledge, along with education, should be free to all academic and public bodies so long as it does not impede upon the sanctity of human affairs
- All universities should be ranked on a sustainability scale. To facilitate this, a "peer-to-peer" competitive network could be created between institutions
- Talk is redundant and purely rhetoric if no one utilizes what research discovers and the potential outcomes of change on campus and beyond
- Disciplinary versus inter-disciplinary education; could be both basic courses and courses tailored to specific degree subject. A three pronged approach could be:

1. General course
2. Disciplinary Course
3. Application/Practical Component

Sustainability Training for Leaders

- Universities must create a forum to educate on sustainable techniques and the science behind climate change for politicians, religious leaders and figures of authority; those individuals in-tune to decision-making and correct-implementation.
- Need to attract expertise to develop curriculum based on survey of the needs by leaders.

1. What skills/information do they need?
2. Cater education to type of leader

Social Sustainable Development

- It's important to observe the history of human progression and its social evolution when addressing social shifting and change.
- We must ask the question: what systems are we trying to sustain? And how should we weigh the necessity of these imperative, ethical changes? We cannot solve problem only to create another.
- Meeting human needs is a priority in all facets of society and culture.
- Key questions: Can you put the environment before the social dimensions?
- Social pressure leads to public pressure, which leads to the enactment of change. Natural resources pertain to social issues.
- Universities cannot be autonomous bodies separate from society. Their research and involvement with global issues must permeate into the regions, communities, cities and villages on which they reside

Main Points:

- University as a tiny piece in a large puzzle, representing a small part of society as an example of how to effect change.
- Public leaders should have courses that develop their critical thinking capabilities, especially in regards to the environment
- Sustainability should be taught at universities to all students
- The media is a key player in educating leaders about environmental issues
- All collaborative academic efforts between institutions must be documented in some way or form. Also, all environmental groups that act and or work within academia as either subsidiaries of students bodies or private in nature must be tethered together
- Since universities harbour great minds and specialists they are consulting agents for government bodies and should offer alternative sustainable practices with respects to the inquiry.
- All universities should be committed to showcasing their sustainability reports and research in related fields to new and returning students
- Universities should educate students about their sustainability initiatives and frame it in an attractive, marketable fashion to insinuate pride

- Connect with elementary and high schools in sharing knowledge and collaborating on projects
- Our aim is to become socially responsible and environmentally conscience academic hubs
- Universities need to be role models, exemplary hubs, so society will strive to mimic their positive bounds in sustainable progress.

Collaborate

Global Student Relationships

- Partnering with other student groups is essential to the success of the ISEN
- ISEN could form committees around different areas of action and responsibility
- ISEN members need to be updated consistently to remain in touch and inspired
- Paradigm change: not *how* to make a new green roof, but means of accessing/convincing powerful agents *the need* to make the green roof
- ISEN needs full-time staff in order to effectively ignite and manage growth
- Challenge: difficulties accessing top entities to gain upper-level support

1. ISEN must attempt to use powerful agents to influence other bodies at different universities
2. Cultural implications as well – rigidity of structures, support agents, influential people

Sharing Best-Practices Between Institutions

- Creating an online university sustainability profile site
- Interface considerations for both university and student forums include: attractiveness, ease of use, membership model, ability to work with any internet host and branding
- Sharing means of gaining academic credit for environmental projects

Governance

- Need a board of advisors comprised of experts in the field
- Expansion mechanisms should capitalize on the power of social networking
- A value proposition for students, partners and universities attract membership
- Board of directors should include elected members from all participating countries
- Annual summits are essential to the network because they help bring people together and enhance commitment
- The governance body should have presence at international events, ex: UNFCCC
- Areas of work and structure include international development, funds raising, marketing, research, communications and governance

Main Points:

- ISEN needs to develop a governance structure and comprehensive, international funds-raising plan
- Branding the ISEN, funding full-time staff, and maintaining current relationships are priorities
- ISEN will act as a platform for engagement and must be prepared for student membership growth and plan for national chapters
- ISEN must create a system to inform and engage alumni and should aim to have a delegate return rate of 20% at annual summits to maintain continuity and build on progress

Global Response to Climate Change

Create

WikiEarth

- Use WikiEarth to connect people in different ways beyond a carbon footprint
- Involve people in WikiEarth to identify areas where data is needed and to collect data for the use of NGOs, etc to lobby government and create change
- **Question**: How does one create and maintain user interest in WikiEarth?
  Answer: To create links between other issues that has meaning to encourage people to contribute. Try to engage users by allowing them to undertake their own special projects and submit results

Resource Security

- Greed is a central cause for resource insecurity
- We must use the media to spread information (especially to poorer people or developing nations) to change people's ideas towards greed and get them to discuss issues of sustainability and create social justice
- Redistribution of wealth will help create resource security
- Defining GDP as quality of life – rather than pure consumption activity
- Growth can be measured by decrease in negatives
- Find a way to quantify development and the environment
- Need to create international accountably, international government body
- Growth should be measured by social justice and making intangible resources quantifiable

Environmental, Economic and Social Justice

- Question: How can values of social and environmental justice be enforced within a system where it isn't encouraged?
- Our thinking needs to be smaller – look at developing communities and helping them to meet their own needs and develop themselves without relying on outside influences. This should be done in a way that lets each country maintain its strengths but also help others when others need help.
- Although there are different justice viewpoints and ethics, compartmentalizing creates a dichotomy
- Need to empower traditional knowledge, local knowledge and values by creating frameworks for agreements between nations. A moral component to the issues must be understood and incorporated

Rethinking Growth

- People need to be encouraged to vote, especially the young people who are the least represented demographic
- A shift towards localization and empowering communities to work semi-independently
- Capitalism needs to incorporate more social issues, social capital, and local security
- University could provide courses in all sustainable development and alternative development views

Conserve

National Responsibility

- Recognize that resources in an area are boundryless, and shared in common; we are all responsible for their well being
- Take into account environmental refugees. What are responsibilities if part of creating the problem? Need effective financial, social and moral incentives for a nation to the global community

Traditional Knowledge

- Traditional knowledge perceived as inferior to hard sciences. Lack of opportunities for indigenous in remote regions causing urban migration
- Traditional customs may be lost through westernization, ex: oral history
- We must understand the lengthy time commitment needed to build rapport with indigenous peoples so they do not perceive themselves as being exploited and harvested for their resources and culture
- A dialogue must be opened between western and indigenous societies, universities can be the conduit used.
- Policy makers must strive to include social components within policy

Collaborate

Universities and Global Policy

- How do we take the energy from all the passionate students about climate change to make an impact at Copenhagen?

- Universities are comprised of: Natural resources (land, environmental surroundings), human resources (students, professors and general mental capacities), technology and infrastructure
- The ability of universities to harness these resources in a mutually effective manner to create synergies is a core asset
- Getting social 'buy-in' is required for behavioural and cognitive changes, and a consulting relationship between professors and local government is a means of using university assets as intermediaries – the role of professors amalgamating a student voice, representing the community, and gaining validation and further legitimacy through such a process
- Two examples can be used to represent these uses:

  In Ghana, the university has land from which crops are harvested by the students, and pottery produced in classes. Professors take these potteries and sell them in the community.

  In Kyoto, the university has little land, instead occupying a historical building. This combined preservation of old tradition and filtering of current news and information enhances the legitimacy of university agents when dealing with community members.

- It was agreed that while a top-down body was very necessary at a conceptual level, an additional bottom-up flow was necessary to generate effective policy implementation
- It was decided that a two-fold approach to global policy implementation should be executed:

  First, the creation of a global organization or network of universities, comprised of representative professors and academics, and consulted by students (through ISEN). This network would serve to effect global policy on an international scale through means of consultation and participative dialogue involving a greater number of stakeholders worldwide

  Second, the need for a bottom-up focus should be satisfied by using the university as a hub or starting point where topics can be raised in a safe environment, gain legitimacy, and be transferred to the community by leveraging university-specific assets

<u>Ensuring Proper Monitoring and Implementation of Global Policy</u>

- We need to inject economic neutrality into the political process, and shift governmental focus from direct evaluation of performance to the impact of issues on a global scale
- Non-negative compliance methods were seen as optimal. It was decided that ratification through legislation would be the most feasible means of ensuring this sort of buy in from state entities
- It was concluded that a combination of upper level and local monitoring activity would be effective

Multi-Stakeholder Approach

- Incorporating industry, student, and staff to come together, have meetings and implement solutions for sustainability
- Try to use the existing relationships within the university through the student union, student board, etc. to be legitimate within well known groups
- Create a particular group and start building a brand around for it to be recognizable around campus and community and include student, faculty, staff and regional partners,
- Create positions and have face time with people in good positions (board of governors, senate), and let them know about your progress

Institutional Memory

- Passing on teachings to younger students, bringing them to the meetings and giving them responsibility so they are engaged and the project is carried through generations
- Need internship for younger generations to transform knowledge and build capacity
- Hold workshops to pass on education

Our Recommendations

To Students

- Become an active member of the ISEN
- Arrange for a meeting with your university executives and structure a cover letter to accompany the outcomes report, giving your university specific requests that reflect our mission
- Share the 2009 WSES presentation with classes and groups
- Post your university's sustainability documents/project outlines/reports online

To University Executives

- Introduce an interdisciplinary minor in climate change
- Post the link to the ISEN website off main university page
- Hire a sustainability coordinator for the university and have them report to the second in command for the university
- Put aside funding to send two students to the 2010 WSES in Germany
- Commit to carbon-neutrality within an accepted IPCC effective timeframe

To World Leaders

- Take student proposals into global conferences and discussions

- It is essential that every country show leadership and cooperating in making an International commitment to sufficient greenhouse gas reductions by 2050 in the United National Framework Convention on Climate Change (UNFCCC) Cop15 in Copenhagen, December 2009 that meets the requests of the IPCC fourth assessment report (AR4).

Future action

International Student Environmental Network (ISEN)

- The ISEN will form a board of directors, initially comprised of students from Doshisha University, Japan; Tubingen University, Germany and The University of Victoria, Canada. The board will expand to include representation from other countries before the 2010 summit in Germany. The initial ISEN board will focus on developing a governance structure and decision-making mechanism.
- The ISEN will host online forums, workshops and debates in order to build action plans for the project ideas, a membership structure for the ISEN and a set of goals and values.
- The ISEN will ensure students have an interface to share best practices from their home universities.
- The 2009 WSES team will share the 2009 WSES PowerPoint with all participants, so they may present at their home universities.
- The ISEN will build a comprehensive, therefore sustainable, revenue model that will allow for the network embrace student drive and act as a catalyst for future projects.

2010 WSES in Eberhard Karls Universität Tübingen, Germany

- The 2010 WSES will aim to bring the number of representative countries to 20 or more, including South American and high Northern latitude universities
- The 2010 WSES organizing team will mentor new leaders, as did the 2008 and 2009 WSE Summits, and build on discussion to create projects and action plans towards our vision
- The 2010 WSES will include discussion on: creating incentive-based programs, building relationships between academia and industry, creating awareness, systems theory, localizing to sustainability and harnessing diversity.