

Editor's letter: winds of change

Sansai Gakurin, after which this newsletter is named, is the research and educational institution affiliated to the Graduate School of Global Environmental Studies (GSGES). In April, after 10 years at the Tachibana Kaikan – the graceful, 100-year-old traditional Japanese villa that was the home of 15 of Kyoto University's presidents – the Gakurin is moving to Kyoto University's main campus to make way for the new Graduate School for Advanced Leadership Shishukan ("place for thought and practice"). Sansai Gakurin, in its new abode, will be closer to the students and faculty that comprise GSGES. Still, with every desk, computer, printer, book, paper, cup, saucer and, indeed, teabag neatly packed up or labelled, ready for relocation, it is to be hoped that the Gakurin's ethos of "ten, chi, jin" – harmony between heaven, earth and humanity – and its capacity to inspire invigorating debate and discussion will make the move as easily.

With such change ahead for the Gakurin, it is perhaps auspicious that all the articles in this issue celebrate change and renewal. GSGES faculty members Izuru Saizen and Miki Yoshizumi write of GSGES's vision for the future, evoked at the graduate school's 10-year anniversary and a two-day forum held at Kyoto University for university educators and administrators, which explored bold initiatives for making campuses across Japan more sustainable. Meanwhile, their colleague, Chiho Ochiai, looks further afield, exploring how communities can best prepare themselves for natural disasters and rebuild in their wake. GSGES alumna Sarah Marchildon reports from the climate change conference in Doha plus there are two articles by current GSGES students focusing on the role young people have to play in spearheading change. Meghan O'Connell examines youth involvement in international biodiversity negotiations while Mai Kobayashi looks closer to home at Kyoto and Tokyo, where young people are demanding Japan's immediate transition to a future without nuclear power.

Tracey Gannon, associate professor, GSGES

GSGES celebrates its 10th anniversary By Izuru Saizen, associate professor, GSGES

On 1 December 2012, GSGES marked its first decade with a series of events at the Clock Tower Centennial Hall. The first, the 14th Kyoto University Forum on Global Environment, featured two keynote speakers, Dr Oike, the director of the International Institute for Advanced Studies and ex-president and professor emeritus of Kyoto University, and Dr Takatsuki, the director of the Miyako Ecology Centre and professor emeritus of Kyoto University.

Dr Oike's lecture was entitled Toward Harmonious Coexistence Within the Human and Ecological Communities of this Planet. He discussed global environmental issues in the context of his specialist field, earthquake seismology, illustrating his theories with Japanese waka poems and ancient documents dealing with historic natural disasters in Japan.

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Professor Fujii welcomes the guests to the banquet

Dr Takatsuki used his own cartoons to illustrate his lecture, A Partnership for Global Environment Protection, in which he proposed ways of making the world more sustainable by moving away from the use of fossil fuels and nuclear energy.

The two lectures were followed by a panel discussion, The Destination for Global Environmental Studies, coordinated by Prof S Kobayashi. Guest panellists and GSGES graduates Dr Harada, assistant professor of GSGES, and Mr Yamashita, senior researcher of the Institute for Sustainable Society, raised some interesting issues concerning the future of global environmental studies and provided examples drawn from their work since graduating from GSGES. Panellists Dr Oike and Dr Takatsuki discussed with the audience some of the issues raised and offered their own perspectives. Prof S Kobayashi ended the session by setting out some goals he expected GSGES to achieve in the future.

After the forum came the 10th anniversary ceremony. Prof Fujii, the dean of GSGES, delivered the ceremonial address and Prof Esaki, the execu-



Dr An gives his congratulatory speech

tive vice-president of Kyoto University, made a salutation to the guests. Four invited speakers – Ms Bandou, the chief of the Higher Education Bureau; Dr Naito, professor emeritus of Kyoto University and the first dean of GSGES; Mr Aono, the mayor of Saijo City, and Dr Hai, the dean of the School of Environmental Science and Technology, Hanoi University of Science and Technology – then offered their warm congratulations.

Next, four professors of GSGES presented an overview of the graduate school's achievements over the past decade. Prof Funakawa began by explaining the founding principles of GSGES and provided an overview of the organization. Prof Katsumi then introduced its research activities, field campus, research bases and satellite office overseas. Next, Prof Kato gave details of the graduate school's education activities, including the curricula of the master's and doctorate courses, fieldwork in Miyazu city, internship programmes and international collaborative research.

Finally, Prof M Kobayashi and Assistant Prof Yoshizumi explained several of Sansai Gakurin's outreach activities, such as the Kyoto University Global Environmental Studies Directory, Kyoto University Global Environmental Forum, *Hannari* Kyoto Shimadai-juku (a gathering that brings together Kyoto University researchers and Kyoto citizens to talk about important issues relating to daily life and the global environment, such as water, soil and food), *Sansai: an Environmental Journal for the Global Community*, *Sansai Newsletter* and the GSGES Asia Platform.

Before closing the ceremony, Dr Hai presented GSGES with the gift of a painting from Hanoi University of Science and Technology. A total of 302 people took part in the forum and ceremony, which ended on a high note and was followed by a ceremonial photograph of the participants.

The next event was the celebration banquet for 151 guests, held at the International Conference Room. Prof Fujii made the salutations, which were followed by inspirational congratulatory speeches from Dr Yamashita, the programme officer for the Special Coordination Funds for Promoting Science and Technology at the Japan Science and Technology Agency, and Dr An, the vice-rector of Hue University of Agriculture and Forestry. Dr Oike gave the toast. During the banquet, Dr Wen, pro-



fessor at the National Yunlin University of Science and Technology, presented GSGES with the gift of a picture. During the banquet, prizes were awarded to the two student winners of the GSGES 10th Anniversary Photographic Contest.

The 10th anniversary events were a great success, enabling GSGES not only to celebrate the educational and research achievements of the past 10 years but to reconfirm its goals for the future.

Deconstructing Doha

By Sarah Marchildon, GSGES alumna (2011)

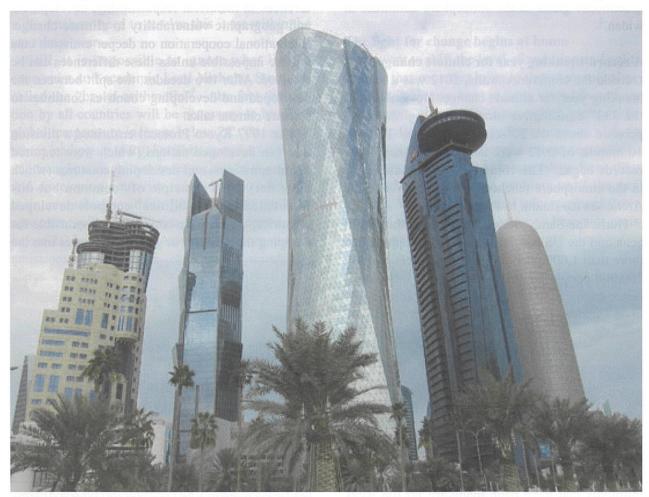
Two words come to mind when reflecting on the United Nations Climate Change Conference, held in Doha last November and December: cognitive dissonance. We talk about the need to address climate change and yet we continue to burn fossil fuels like there's no tomorrow. This dissonance – the inconsistency between what we know and how we

behave – was on full display in Doha.

Not that anyone expected Doha to raise ambition on climate change. Before it even began, this was only always seen as a "transitional" conference. It was about moving forward to reach a new agreement by 2015 that will require both developed and developing countries to cut their emissions. It was about making progress on a commitment to channel \$100bn to developing countries every year by 2020 (although, in the end, no clarity was provided on this).

It was also about launching a second commitment period of the Kyoto Protocol, which ends in 2020 (when the new agreement comes into force). But without Russia, Canada, Japan and New Zealand on board, the second commitment period covers just 15 per cent of global greenhouse gas emissions. That leaves us with a Kyoto Protocol that is more symbolic than significant.

The negotiations are starting to feel like a car that is stuck in a snow bank – the wheels spin and



Doha, Qatar: the setting for the UN Climate Change Conference and 'a living example of what growth at any cost looks like'



spin but they fail to gain traction.

The conference ended with a package of decisions called the Doha Climate Gateway, which, at the micro level, contains markers of progress but, at the macro level, reflects the low level of ambition and the lack of real movement that have hampered these talks for the past 20 years.

Despite closing with a weak outcome that all countries decided they could live with but that none were particularly happy about, the conference was applauded as a success. Not that "success" means much in international climate change negotiations these days. Success no longer means something monumental was achieved; it now means the conference didn't collapse.

In the end, the Doha conference achieved what it set out to do. There was progress for the process but action on the ground is happening far too slowly to get us to where we need to be. And so the gap between what countries have promised to do to reduce emissions and the growing concentration of greenhouse gases in the atmosphere continues to widen.²

A record-breaking year for climate change

Outside the conference walls, 2012 was a recordbreaking year for climate change. November was the 333rd consecutive month with a global temperature above the 20th-century average.³ The first 10 months of 2012 were the ninth warmest since records began.⁴ The volume of greenhouse gases in the atmosphere reached a record high⁵ and the Arctic sea ice shrank to a record low.⁶

Hurricane Sandy devastated parts of the Caribbean and the US east coast. Typhoon Bopha killed more than 1,000 people in the Philippines and left 300,000 people homeless. And if this wasn't evidence enough, the Intergovernmental Panel on Climate Change (IPCC) released a report that found extreme weather events could become more likely, more frequent and more extreme with worsening climate change.⁷

The world's leading scientists have been telling us that increases in global temperatures must be kept to no more than 2C above pre-industrial levels to avoid the worst consequences of climate change. Although Doha launched the second commitment period of the Kyoto Protocol, the commitments that have been made are far too weak

to actually achieve the target of keeping global temperature increase below 2C. The IPCC suggested that developed countries should reduce their emissions by at least 25 to 40 per cent below 1990 levels by 2020 but the current commitment is just 18 per cent below 1990 levels by 2020 – far below the range suggested by the IPCC.

What happens next?

It is easy to feel pessimistic about international negotiations on climate change. Each meeting seems to follow the same pattern: all talk, no action. World governments have been talking about climate change for 20 years but have made very little progress. Trying to get 194 countries to move together in the same direction feels less like building consensus and more like herding cats.

Part of the problem is that negotiations are complicated by fundamental differences of position, which have yet to be resolved. Countries will have to find a way to work through their key differences in historical responsibility, development and geographic vulnerability to climate change. International cooperation on deeper emission cuts will be impossible unless these differences can be resolved. After two decades, the split between the developed and developing countries continues to fracture climate talks.

The 1997 Kyoto Protocol enshrined a division between developed nations (which were required to cut emissions) and developing countries (which were not). This principle of "common but differentiated responsibilities" compels developed countries, which were historically responsible for pumping the majority of greenhouse gases into the



Giant spider sculpture at the Qatar National Convention Centre



atmosphere, to take the lead in reducing emissions while providing financial and technological support to developing countries. But the world in 2013 looks very different to how it did when the Kyoto Protocol was being negotiated. Back then, China was classified as a developing country. Now it is the world's biggest emitter⁸ and will soon overtake the US as the biggest economy. As a result, developed countries are insisting that developing countries take on commitments too.

The changing structure of the world's economy was central to the Durban Climate Change Conference in 2011, when countries agreed "to develop a protocol, another legal instrument or an agreed outcome with legal force under the convention applicable to all parties" (to be negotiated by 2015 and come into effect from 2020 onwards). The sticking point is what "applicable to all" will mean in the new agreement. In Doha, countries argued about whether the convention principles, especially that of common but differentiated responsibilities, should be at the core of the new agreement. They will somehow need to resolve this issue within the next three years.

Still, it is impossible to ignore what British economist and academic Lord Nicholas Stern has called the "brutal arithmetic" – the fact that action by all countries will be necessary to hold the global temperature increase below 2C. The negotiations leading up to 2015 will be complex, difficult and fraught with animosity, especially if developed and developing countries refuse to move beyond their entrenched positions. It's not clear if the 2015 agreement will keep the rise in global temperature below 2C because this would require deep cuts in emissions by all countries, starting almost immediately.

A surreal location for a climate change conference

It is worth mentioning what it is actually like to attend one of these climate change conferences. *The Economist* described the meetings as a "theatre of the absurd" (a description that also applies to the opulent Qatar National Convention Centre, with its Swarovski chandeliers – all paid for by money generated by the world's unquenchable thirst for Middle East oil). Qatar was a surreal location for a climate change conference. Or maybe, as a living

example of what growth at any cost looks like, it was actually the perfect place for such a conference.

Qatar generates the world's highest carbon emissions per capita. Which is not surprising when you consider it burns fuel to desalinate seawater, builds golf courses in the desert and cranks up the air conditioning to the max. Doha is what happens when you build a city in the middle of a desert and give no thought to the consequences for the environment.

The city is designed for cars. The roads are wide. No one walks anywhere. Sometimes there are sidewalks, sometimes not. Going for a walk is like interval training – you alternate walking with bursts of sprinting across six lanes of traffic. The only form of public transport is the taxi. There is not a cloud in the sky and yet there is not a single solar panel in sight. Doha's half-empty skyscrapers, luxury hotels and vast shopping malls were built by oil wealth – cash generated by the same oil that is accelerating the pace of climate change

The fight for change begins at home

If we want to shift the level of ambition and political will that countries bring to the international negotiating table, we need to ramp up public concern for climate change. Without public pressure for strong action, countries will continue to push for weak targets at international climate negotiations. Ministers will be able to return home from these meetings and ignore the problem until the next summit. Without this mutual reinforcement, international negotiations will go nowhere and emis-



Youth delegates call for increased ambition during the final days of the conference



sions will continue to rise.

Although the United Nations Framework Convention on Climate Change (UNFCCC) process is at the centre of international engagement, its executive secretary reminds us that "it is not the circumference of action on climate change". ¹⁰ The fight to protect the climate doesn't begin and end at these conferences; it happens at home. The more we demand fundamental changes, the more political and business leaders will have to act. Or as environmental campaigner George Monbiot puts it: "Governments care only as much as their citizens force them to care. Nothing changes unless we change."

So how do we change? How do we create a groundswell of support for renewable energy and sustainable growth? Environmental activist Satish Kumar highlights four things most social movements have in common:

- 1. Action. If you want to influence other people, you need to back up your words with action. It's not about being dogmatic or demanding. It's about "being" the change you want to see in the world.
- 2. Communication. Share your ideas. If 10 people share their idea with 10 other people, they will reach 100 people. If 100 people share their idea with 10 other people, they will reach 1,000 people. If 1,000 people share their idea with 10 other people, they will reach 10,000 people. Ideas can spread exponentially, so start spreading them.
- 3. Organization. Slavery in America ended because people organized. The Berlin Wall came down because people organized. The Arab Spring spread across the Middle East because people organized. People need to come together to make their voices heard.
- 4. Long-term commitment. Urgency does not mean panic. It means continuous, patient action to change the world.

It is easy to blame political leaders for the failure to reduce greenhouse gas emissions. But the problem goes deeper than that – very little is being done to address the root cause of climate change. And while it's true that climate change is caused by increased concentrations of greenhouse gases in the atmosphere, that's only part of the story. The

climate crisis is also a crisis of world view.

We don't live in an infinite world and yet we act as if we do. We behave as if the oceans will never run out of fish and the ground will never run out of oil. During the past 250 years, human beings have altered the planet more rapidly than at any other period in history. We have consumed resources faster than they can regenerate. We have driven thousands of plants and animals to extinction. The science is clear: a major shift in our consumption and production patterns is needed to enable us to live within the constraints of the natural systems that support us.

It's time to break the cycle of cognitive dissonance that allows us to talk about the need to address climate change while we continue to burn fossil fuels like there's no tomorrow.

- 1. http://unfccc.int/files/press/press_releases_advisories/application/pdf/pr20120812_cop18_close.pdf
- 2. www.rtcc.org/governments-extending-%E2%80%9Cemissions-gap%E2%80%9D-between-climate-policy-and-2%C2%B0c-target/
- 3. www.ncdc.noaa.gov/sotc/
- 4. www.wmo.int/pages/mediacentre/press_releases/index_en.html
- 5. www.wmo.int/pages/mediacentre/press_releases/documents/GHG_Bulletin_No.8_en.pdf
- 6. www.nasa.gov/topics/earth/features/2012-seaicemin.html
- 7. www.rtcc.org/ipcc-confirms-link-between-climate-change-and-extreme-weather/
- 8. www.guardian.co.uk/environment/2012/dec/08/doha-climate-change-deal-nations
- 9. www.guardian.co.uk/environment/2012/dec/04/lord-stern-developing-countries-deeper-emissions-cuts
- www.ipsnews.net/2012/12/op-ed-a-universal-climate-changeagreement-is-necessary-and-possible/
- 11. www.monbiot.com/2012/12/31/annus-horribilis/

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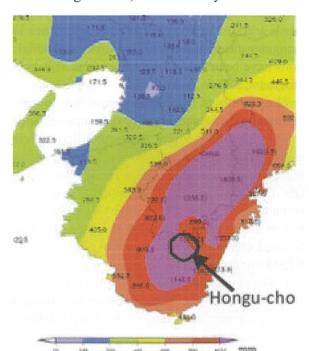


Strong community links help the residents of Hongu-cho survive a typhoon By Chiho Ochiai, assistant professor, GSGES

The great earthquake and tsunami that hit eastern Japan in March 2011 received global news coverage but when a typhoon of the same rating – extreme-severity disaster – struck Nara, Mie and Wakayama prefectures later that year, it attracted less publicity but had devastating effects for the communities affected.

Typhoon No. 12 struck several mountainous communities in Tanabe city in Wakayama prefecture between 30 August and 4 September as it passed over central Japan. Kamikitayama village in Nara prefecture recorded 1652.5mm of rainfall in 72 hours – the most since records began in 1976. Heavy rain caused flooding and large-scale landslides in the worst affected areas, including Tanabe city. Wakayama prefecture reported 50 deaths and five missing persons.

One area badly affected was Hongu-cho (Hongu district, hereafter Hongu). Hongu is located in the central part of the Kii peninsula and is home to the Kumano Hongu Taisha shrine, one of the three main shrines of Kumano and a place of pilgrimage since the Heian period. The area suffered massive flooding in 1889, which destroyed the famous



Total rainfall from 30 August to 4 September Source: Wakayama Meteorological Laboratory

shrine that had existed there for 1,000 years (it was later rebuilt on the top of a nearby hill). Floods struck again in 1991. Given this history, the people living in this area are highly aware of the dangers of heavy rain and flooding. However, the scale of the September 2011 floods was far worse than the residents could have expected.

When disaster strikes, support from public authorities (the local government or fire department) may be constrained by limited manpower and a lack of information, street closures and challenging situations that change from one minute to the next. At such times, community-based disaster management strategies covering evacuation, information sharing and managing the time people spend in emergency shelters are crucially important.

Although the people of Hongu experienced 2mhigh floods and some communities were temporarily isolated when nearby landslides blocked roads, there were no casualties. (There was one death, that of an elderly woman found in a paddy field, but she is not thought to have died as a direct result of the disaster. It is believed she fell into a trench before the typhoon struck.)

What do you do and where do you go when your house starts to be inundated by flood water? How and when should you evacuate? In Hongu, government officials communicated with the population over a public-address system and also contacted the heads of the residents' association to warn them of the impending danger. The association heads then telephoned the residents to tell them to evacuate. At the same time, government officers, members of the residents' association, fire fight-



The buildings of Hongu-cho lying under flood water Source: local resident



ers and fire volunteers knocked on doors to ensure people had left their homes. These efforts meant many Hongu residents were evacuated early to public schools, a community centre (Koumuinkan), temples and even private houses on higher ground. Inevitably, some residents did not evacuate as early as they should have done because, based on past experiences, they underestimated the severity of the flood. They had to be rescued by professional fire fighters by boat – an operation that put both the firefighters and residents at risk.

Many residents evacuated to Hongu Junior High School, which is located on top of a hill. The school principal opened the building and gymnasium to residents but the conditions were far from comfortable for the evacuees. The toilets did not flush because the electricity and water supplies were cut off, no futons or blankets were stored, no food or water were in stock and very few teachers were able to come to the school to manage the situation because the main roads were closed. However, the local residents, evacuees and those teachers who could reach the school pulled together to overcome the difficulties.

Local government officers later told GSGES researchers that the prompt evacuation of almost all the residents was one of the reasons why there were no human casualties in this disaster. The head of the fire department said: "This community is small and has strong local ties. We know all the residents and where they might be sleeping or resting. This kind of shared information is very useful at the time of evacuation and rescue."

The typhoon was devastating. The rain and floods continued for several days and left tons of mud lodged in streets, houses and temples. Several houses and buildings were totally destroyed. A few days after the disaster, many school children and local residents volunteered to dig mud from the houses and streets. It took months to recover from the disaster.

The story of how this community survived this catastrophe teaches us an important lesson. Community activities such as trimming grass verges, street cleaning and a school sports festival bringing together young and old help foster social ties between residents and strengthen neighbourhoods, facilitating disaster response and aiding recovery and reconstruction. The principal of Hongu Junior

High School is proud of his pupils, who uphold their school motto — Yutakana kokoro wo mochi, shutaiteki ni kangae koudou dekiru seito no ikusei (To nurture big-hearted students capable of taking the initiative) — by doing what they can to help others.

Greening the campus: Kyoto University hosts forum promoting sustainability in higher education

By Miki Yoshizumi, assistant professor, GSGES

On 17 and 18 November 2012, Kyoto University's Graduate School of Global Environmental Studies (GSGES) hosted a forum for university professors and administrators who are initiating innovative education for sustainable development (ESD) programmes on their campuses. These programmes are part of the Decade of Education for Sustainable Development (2005-2014), which was launched at the United Nations General Assembly in response to a proposal from Japan. In 2007, representatives of several member universities of the Japanese Society of Environmental Education came together to form the Higher Education for Sustainable Development (HESD) Forum, designed to promote ESD in higher education through inter-university educational and research exchange activities. Since the inaugural meeting at Iwate University in 2007, forums have been held at the universities of Rikkyo, Okayama, Sophia, Tokushima and now Kyoto.

The theme of this sixth forum was campus sustainability, which broadly encompasses environmental management, sustainability policies and education for sustainability. As the organizing committee of this year's HESD Forum, the GSGES-based Tertiary ESD Initiative invited participants to consider the university's environmental role in the community as well as its sustainability-focused campus activities and experiences. The HESD Forum covered:

1. Greening the campus. Environmental management and practices, including new building design, repair and renovation projects, building operations and maintenance, procurement practices, landscaping, waste and recycling, energy management, transport, food service/dining op-



erations and residential operations.

- 2. Education for sustainability. Sustainability majors/minors/certificates and campus-wide courses offering sustainability content.
- 3. Environmental links and community outreach. Collaborations with local businesses and non-governmental organizations, education and outreach, events and alumni.

The first day of the forum opened with greetings from Prof Shigeo Fujii, the dean of GSGES, followed by a speech from the forum's chair, Prof Osamu Abe of Rikkyo University, who set out the event's objectives. The keynote speaker, Prof Katsunori Suzuki of Kanazawa University, then talked about the role of universities in promoting ESD in academic ESD-networks worldwide. Stimulating presentations followed from Prof Hye Sook Park of Mie University, Prof Tokukazu Miyoshi of Tokushima University and Emeritus Prof Hiroshi Takatsuki of Kyoto University, who is also the director of the Miyako Ecology Centre, Kyoto city's environmental education visitor centre.

The day continued with a panel discussion featuring all the day's speakers and moderated by Prof Kazuo Matsushita of GSGES. The panellists suggested ways for universities to promote ESD, discussed several university programmes and highlighted the potential for university-NPO collaborations to pursue ESD goals in the community. Prof Shinichi Sakai, the director of Kyoto University's Environment Preservation Research Centre, provided the final remarks.

The second day began with an illuminating presentation by Associate Prof Jane Singer from GSGES on worldwide campus sustainability

trends. Next, 12 professors introduced their respective universities' environmental management policies, ESD programmes, community activities and roles in regional partnerships. A moderated discussion, led by Associate Prof Rajib Shaw, ensured an exciting close to the forum, with participants discussing several pressing issues, such as the need to involve various departments in universitywide ESD initiatives, the problems of prioritizing campus sustainability ratings that may not be suitable for Japanese campuses, and the difficulty of funding and ensuring the continuity of ESD programmes. The participants also engaged in a lively exchange of opinions on the viability of ESD programmes inside and outside universities and the operational management of - and future prospects for - the HESD Forum itself.

Altogether, 50 people participated in the forum. The proceedings were published for the first time – a development that was received enthusiastically by participants and organizers, who saw the publication as an opportunity to share educational and research activities on ESD and to accumulate information on the HESD Forum's activities.

GSGES faculty members are currently working with Kyoto University administrators to ensure the impetus for campus sustainability celebrated at the forum continues to gain momentum at Kyoto University. It is hoped that faculty members and students, not just at GSGES but across the campus, will join in the university-wide initiatives that are under way to promote sustainability in all aspects of operational management and curricula.



Participants at the Higher Education for Sustainable Development Forum share their ideas



Young activists make their voices heard at UN biodiversity conference

By Meghan O'Connell, second-year master's student, GSGES

Those attending the United Nations Convention on Biological Diversity's 11th meeting of the Conference of the Parties (UN CBD COP 11), held in Hyderabad, India, last October, were treated to colourful auto-rickshaw rides and reviving cups of sweet chai along with negotiations on the importance of biodiversity. GSGES students Melina Sakiyama, Gou Shiwei and I attended COP 11 as members of the Global Youth Biodiversity Network (GYBN) – a group of young people from around the world, united in their desire to raise awareness of the immense value of biodiversity

Biodiversity cannot be taken for granted. Young people represent a generation that wants more protection against the loss of biodiversity and we demand a say in the decisions that will shape our future. This was the motivation behind the creation of GYBN, which was established in August 2012 by young people who had participated in COP 10 in Nagoya. GYBN's aim is to give young people a unique platform for collaboration. By becoming active within the CBD, young people can participate in the decision-making processes at local,

national and international levels. The expectations we had set for ourselves were high and we were ready to meet the challenge of the next two weeks head on.

Young people take responsibility for the future

GYBN's goal at COP 11 was three fold: to establish ourselves as the united voice of youth in the CBD process, to prove why we should be a major stakeholder in the convention and to raise awareness of what we are doing to protect biological diversity in our home countries.

In our first intervention during the negotiations, our message was clear – young people comprise 40 per cent of the world's population. We are young foresters fighting illegal logging, young volunteers at national parks, young students who will be future biologists and policy makers. We understand the necessity of preserving species and habitats at risk and, as a large percentage of the population, we should have the right to work with the parties to take responsibility for our own future.

With this sentiment in mind, we proposed a text to be included in Agenda Item 5.4 – "Engagement of other stakeholders, major groups and subnational authorities." We outlined the importance of involving young people actively in the decision-making processes at all levels and encouraged par-



Associate Prof Jane Singer introduces the delegates to some global trends in the field of campus sustainability





The event enabled university staff to share their ESD knowlege

ties to provide the capacity to ensure that happens throughout the world. Our text was supported by a number of parties and was adopted and incorporated into the convention's final document.

The good, the bad and the negotiations

After the first week of conference negotiations, it was clear which nations' parties supported actions to preserve biodiversity and which did not. GYBN members devised some awards to highlight these differences. The Dodo award was handed out to governments that "failed to evolve" and whose actions were contributing to biodiversity loss. Canada and the UK were the unfortunate, yet deserving, recipients. Canada was chosen for breaching the moratorium on ocean fertilization and geo-engineering adopted by the CBD in 2008 and 2010, as



The Global Youth Biodiversity Network delivered two interventions during the negotiations at COP 11

well as for blocking progress on financial commitments. The UK picked up the dubious accolade for blocking attempts by the European Union and the CBD to adopt a precautionary approach to synthetic biology and for failing to establish or maintain moratoria.

To celebrate the positive, we handed our Busy Bee award to the African group for being constructive in negotiations concerning resource mobilisation, singling out Gabon for supporting our youth engagement statement.



Gabon and other African nations picked up Busy Bee awards for biodiversity conservation (left); Canada and the UK were given Dodo awards for their lack of action (right)



Advice from the top

Our meeting with the executive secretary of the CBD, Bráulio Ferreira de Souza Dias, was an undoubted highlight for all the members of GYBN. Despite his busy schedule, Dias took time to meet us and tell us about his background as well as his expectations for young people's contribution to the CBD process. Dias, who was born and raised in Brazil, said his appreciation of biodiversity stemmed from his love of the Brazilian savannahs, where he spent time camping, catching insects and watching birds. Dias complimented GYBN on our engagement with the CBD and stressed that it is important to keep pursuing the issues, not only at the COP but regularly in our home countries. This is a message that we understood well, given that our individual motivations for joining GYBN and getting involved with the CBD process come from the work we are doing at home. From organizing local wildlife conservation projects to teaching about sustainable development, we are committed to making a difference at the local level.

Three cheers for women and young people!

The last major event in which we were involved was a joint press conference with the Women's Caucus to present Gender and Youth Day. In every region of the world, women and young people have unique relationships with, dependencies upon and expertise regarding their environments. The women we worked with at the conference were dedicated to raising awareness of the importance of biodiversity and their motivation and energy were infectious. In our press conference, we reminded the parties to the convention that women in



Donning Indian sarees and kurtas, members of GYBN celebrate Gender and Youth Day with Braulio Dias, executive secretary of the Convention on Biological Diversity

indigenous and local communities hold important traditional knowledge and young people will carry this traditional wisdom into the future. This is why it is important to recognize the crucial role women and young people play in conserving biodiversity and to remember that we all depend on natural resources for our livelihoods.

How COP 11 measured up

From a policy perspective, the negotiations succeeded on a few fronts. The developed countries agreed to double their funding to support the efforts of the developing nations to meet the internationally agreed Biodiversity Targets and the main goals of the Strategic Plan for Biodiversity 2011-2020. The parties agreed to include new measures to factor biodiversity into environmental impact assessments linked to infrastructure and other development projects in marine and coastal areas. The Sargasso sea, the Tonga archipelago and key coral sites off the coast of Brazil are among a range of marine areas to receive special government attention as part of renewed efforts to manage the world's oceans sustainably. Although these initiatives are a definite step in the right direction, the parties did not agree to any binding commitments. If countries do not fully commit to financing and implementing the targets set by the convention, then once again the negotiations will be all talk and no action. Despite the number of biological conservation projects taking place around the world at the local level, real progress cannot be made until major policies come into play.

Youth engagement throughout the conference was phenomenal. GYBN was able to introduce itself and explain its work through a number of platforms. We worked closely with many young Indian people and were constantly impressed by their dedication and motivation to increase awareness of biodiversity in India. Youthful optimism is a driving force for biodiversity conservation throughout the world because young people know that change is possible. We are doing our best to inspire young people and future leaders to work for the sustainable use of biodiversity for a healthy environment and society. We will work hard to keep the momentum going and plan to involve more young people at COP 12 in Korea in two years' time.



To learn more about GYBN and keep up to date with future youth initiatives, visit our Facebook page at https://www.facebook.com/thegybn?ref=ts&fref=ts

Generational struggle and the search for a non-nuclear future

By Mai Kobayashi, first-year doctoral student, GSGES

"As long as there are people who are still being exposed to contaminated food, air and water, the accident has not ended," says Paul Gunter, director of Beyond Nuclear's Reactor Oversight Project, which is based in Washington DC. He was speaking at a press conference preceding the second Global Conference for a Nuclear-Power-Free World, held in Hibiya, Tokyo, last December.

Mycle Schneider, an independent international consultant on energy and nuclear policy (who received the Right Livelihood Award jointly with Jinzaburo Takagi for their plutonium research in 1997), also spoke of the seriousness of the ongoing situation at the spent fuel pools of the fourth reactor at Fukushima Daiichi nuclear power plant. He pressed for the establishment of an international team of experts to deal with the problem - something the Japanese government has been reluctant to agree to. With more than 150,000 people from Fukushima prefecture unable to return to their homes, and children still living in areas with radiation levels that are four times greater than those in the forced evacuation zone around Chernobyl, Ukraine, the Fukushima nuclear disaster of March 2011 remains a problem that demands everyone's concern.

Few voice that concern quite so succinctly and effectively as the Kyoto-based underground dance/rock band, Frying Dutchman, known for their song *Human Error*. When I saw them play at Bukkyo University in Kyoto in December, they started their live act with a chant:

"Genpatsu iranai!" (No more nuclear!)

"Dondon-dondon koe ageyouze!" (Let's keep on raising, raising, raising and raising our voices!)

"Koe wo agete minna de tomerushika naize!" (All we can do is raise our voices to unite and stop all this!)

"Okane yori motto daijinamono aruyone!" (There are things that are more important than money, right?)

"Wasuretewa ikenaine!" (We can't forget!)

"Shizen-enerugi minna dashite ikou!" (Make natural energy!)

"Minnnade koe awasemashou!" (Put our voices together!)

"Naniga daijika saikakunin shiyouze!" (Let's reconfirm what's most important)

"Ai! Ai! Ai! Ai!" (Love! Love! Love! Love!)

"Genpatsuha hitsuyou nai!" (There is no need for nuclear energy!)

The song that followed put the thoughts of many of us to music. Toshiya Morita, a writer and former research fellow at Doshisha University's Research Centre for Social Common Capital, gave a presentation after the performance. As an activist, Morita reports on the Fukushima nuclear disaster, striving constantly to raise awareness on issues such as the dangers of internal radiation. As he began his presentation, Morita quipped that Frying Dutchman had taken just 20 minutes to convey a message that takes him hours to explain.

Nonetheless, his presentation was concise, informative and empowering. He started by highlighting the seriousness of the realities we face today. Morita talked of an agreement he has with his wife to meet at the south side of Kyoto station should they ever need to evacuate the city. There, they would have the option of either taking the bullet train, if there is still electricity, or the bus, bearing in mind that the first people to evacuate Fukushima were those with exit strategies – the families of



The lead singer of Frying Dutchman leads the chant



Tokyo Electric Power Company employees – and they took buses.

Morita also reminded Kyoto residents that, owing to the continuing unstable conditions at the Fukushima Daiichi plant, and with earthquakes still occurring at record-breaking levels, they should be prepared to receive large numbers of evacuees from the Tokyo area.

Morita next explained that the contamination is far from contained within Fukushima. According to Yukio Hayakawa, a volcanologist at Gunma University, much of the contamination has been spreading along valleys traversed by roads and railways, as well as on ocean currents along the coast of much of the Tohoku area. Pockets of particularly high contamination can be found in the Tokyo, Chiba and Iwate prefectures.

Fly ash collected from 469 incineration plants in 16 prefectures in the Tohoku and Kanto regions since June 28 2011, when the government set 8000Bq/kg (becquerel per 1 kg) as the maximum level allowable in landfill, showed highly variable levels of radiation. Whereas any waste coming out of a nuclear power facility measuring more than 100Bq/kg is technically considered radioactive waste, incinerated ash in areas of Fukushima was measuring 50,000 to 200,000Bq/kg. Even in Mitaka, western Tokyo, levels of 3000Bq/kg were recorded. Such data proves that much of Tohoku and parts of Kanto share the same the levels of contamination as the voluntary evacuation zones around Chernobyl, where the then Soviet govern-

ment gave full funding and assistance to anyone wanting to evacuate. Fly ash in incineration plants in Kyoto measured 26Bq/kg. Although comparatively low, this is still 10 times higher than levels found before the disaster. This, according to Morita, is not airborne contamination from radioactive particles but the result of contaminated food being brought into Kyoto from radioactive areas.

This tells us two things. One, we — especially children and young women — must be careful not to expose ourselves to internal radiation by eating contaminated food. Two, we have an obligation to protect the uncontaminated lands of western Japan to better support people who continue living in the more contaminated areas. Internal and external radiation are threats of completely different magnitude. The sievert unit only measures the amount of external radiation the body is being exposed to; levels of internal radiation are almost impossible to quantify. The Japanese government, however, does not differentiate between the two when determining the acceptable level of exposure to contaminated food.²

Morita ended his talk by quoting Shuntaro Hida, who, as a young doctor, went into Hiroshima immediately after the detonation of the atomic bomb. Hida is one of the few living people able to speak from experience about internal radiation. "If you have been exposed to radiation, there is nothing you can do but to commit to keep on living by staying as healthy as possible," he says. "Don't overeat, go to bed early and get up early, and en-



Kyoto-based dance/rock band Frying Dutchman bring the anti-nuclear message to Bukkyo University





Anti-nuclear activist Toshiya Morita warns of the ongoing danger to public health arising from the Fukushima disaster

joy meals with your loved ones," he says, because it has been scientifically proven that being happy boosts our immune system. Evidently, as Frying Dutchman so ardently affirm, love really does make a difference, after all.

Citizens mobilise to achieve 'nuclear zero'

I attended the second Global Conference for a Nuclear-Power-Free World in Hibiya four days after the event at Bukkyo University. The main conference organizers were Peace Boat, the Institute for Sustainable Energy Policies, Green Action, Citizen's Nuclear Information Centre and Friends of the Earth Japan. More than 5,500 people, in-

cluding 25 speakers from nine different countries, gathered in the various venues. Discussions focused on three themes: Learning from Chernobyl, Nuclear Power Regulation and Building a Nuclear-Free Society.

The first to speak was Alexey Yablokov, an ecology and public health adviser to the Russian president from 1991 to 1993, who spoke about how the International Atomic Energy Agency and World Health Organisation underestimated the longterm damage caused by Chernobyl. Next, Masaru Kaneko, professor of economics at Keio University, Hiroyuki Kawai, a lawyer and head of Lawsuit Lawyers for Halting the Ohma and Hamaoka Nuclear Power Plants, and Miranda Schreurs, director of the Environmental Policy Research Centre and professor of comparative politics at the Free University in Berlin, discussed the importance of keeping the government and media accountable for providing the facts about nuclear power's limitations and its economic and social risks.

They also emphasized the critical role citizens must play in the fight to achieve "nuclear zero". In a session entitled People who Stopped Nuclear Power Plants, we heard from individuals from Japan, South Korea, Taiwan, Lithuania and Italy, who fought to stop the construction of plants and the export of nuclear power. Their efforts showed how the issue of nuclear power transcends political



The audience hear Toshiya Morita's personal evacuation plan



borders.

The concluding discussions focused on the importance of building capacity. We need more independent experts to monitor the documents released by the Nuclear Regulation Authority and we also need all relevant government documents to be translated into English to assist specialists from overseas. We must ensure that human rights are upheld in Fukushima and must pledge better and continued support to those who have been affected by the disaster. Lastly, we must be proactive in transforming our energy mix by promoting energy-saving technology, investing in renewable energy and ending our dependence on nuclear. As Germany proudly demonstrates, we need to show how shifting to renewables is good not only for the environment but for the economy because it provides employment in rural regions where it is most needed.

The concluding session of the global conference was led by youth activists. The participants identified the abolition of nuclear power as just one part of a much larger socio-economic and political picture. The calls for change were timely: throughout the positive discussions, the participants were acutely aware that the pro-nuclear Liberal Democratic Party was heading for a landslide win in the

election to the lower house of parliament that very day (an election in which, it transpired, the youth vote had reached an all-time low). At the front of people's minds was the need to help the electorate, particularly the younger generation, regain their confidence in the political process. The youthful delegates emphasized that we must trust our capacity to change and, because it's going to be a long struggle, ensure we enjoy the process. But to create a better and more just world, we must first join Frying Dutchman and add our voices to the rallying cry: "Genpatsu iranai!" (No more nuclear power!).

- 1. Quantitative data collected in various incineration plants can be found online, along with an outline of the regulation regarding the disposal of contaminated waste, in a report by the Japanese Ministry of the Environment at www.env.go.jp/jishin/attach/haikihyouka_kentokai/06-mat 2.pdf (in Japanese).
- **2.** A clear explanation of the dangers of internal radiation is given in Katsuma Yagasaki and Toshiya Morita (eds.) *Naibu Hibaku (Internal Radiation*), Iwanami Shinsho 2012.
- **3.** Other organizers included Greenpeace Japan, the 10 Million People's Assembly to say Goodbye to Nuclear Power Plants, the Metropolitan Coalition Against Nukes, Earth Garden, Women's Action Network, The Atomic Cafe and 69nokai.

Editorial

Editor Tracey Gannon; technical editor Maria Ainley-Taylor; design and layout Kenji Yamamoto (photographs of the HESD Forum and Frying Dutchman concert supplied by Kenji Yamamoto)

We welcome your submissions to future newsletters.

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