

Report of the First UNESCO Bangkok Bioethics Roundtable (BBRT1)

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Background

In this third regional ethics meeting held by UNESCO in 2005 in Bangkok there were 100 papers presented over five intensive days of plenary informal roundtable (11-15 September, 2005) held in Imperial Tara Hotel. The purpose of this meeting was to engage in an interactive dialogue over the priorities for bioethics and ethics of science and technology in Asia and the Pacific, with global implications. How can we apply bioethics declarations and international agreements to enhance the realities of communities across a divided and diverse world? A number of members of the expanding regional networks of researchers and policymakers were brought together from 33 countries and a wide range of specialties for this roundtable as a further step in the reflection and action on ethics of science and technology for ongoing UNESCO programmes.

In order to encourage group interaction, at this meeting 150 experts attended in their individual capacity, with a time limit of 10 minute talks followed by similar time in informal Q&A in a roundtable format. After introduction to the UNESCO Ethics Programmes, at the conference which included members of COMEST and the International Bioethics Committee (IBC), there were sessions on the History and Practice of Ethics of Science and Technology, Bioethics Education in Schools across Asia and the Pacific, Environmental Ethics, Ethics of High Technology, Ethics and Policy across the Pacific and Asia, Medical Ethics and Education, Bioethics for All and South-South Dialogues, Public Health and Ethics of Research and Governance Models for Genetic and Reproductive Technology. There were also satellite working meetings on the Bioethics textbook project on the 13 and 16 September. On the 14 September there was an all day field visit with sessions in lecture room and in agricultural fields at Kasertsart University - Kamphaeng Saen Campus, on Biotechnology and Bioethics. The meeting provided continued feedback on the regional needs and priorities for bioethics and ethics of science and technology, and in the coming biennium the Asia-Pacific region will be a priority region for UNESCO work in these areas. The abstracts, discourse and proceedings of the meeting will be on-line and published in hard copy also.

Meeting report

In the **Opening Session** there was an introduction to UNESCO Ethics Programmes, with presentations on both the UNESCO IBC (by Darryl Macer) and COMEST (by Sang-yong Song). There was also a welcome from the representative of the Thai Ministry of Science and Technology, Prof. Prapon Wilairat, that follows up the cooperation in hosting the Fourth Session of COMEST in March 2005.

The Roundtable was opened by a Welcome from Sheldon Shaeffer, Director, UNESCO Bangkok. The Roundtable was the first event in Bangkok of the 60th anniversary of UNESCO. Shaeffer talked on the newest mandate of UNESCO the "Decade of Education for Sustainable Development." ESD is a framework encompassing all of UNESCO's education work: EFA, Secondary Education, Technical Vocational Education and Higher Education, Citizenship Education, Peace Education, Distance Education, etc.

The UNESCO Bangkok office is the largest UNESCO branch office in the Asia-Pacific Region, which for UNESCO includes 46 member countries from Turkey in the West to Japan in the East and New Zealand and 17 Pacific Island nations to the South. It is designated as the regional office for coordinating implementation of the UNESCO programmes on ethics of science in Asia and the Pacific with the Division of Ethics of Science and Technology in Paris HQ. This includes increasing national and regional implementation of UNESCO declarations, and a range of programs including capacity building, discussion with other UN agencies and international organizations, and research on bioethics ethics teaching programs related to implementing the Decade of Education for Sustainable Development (ESD). The activities of the UNESCO International Bioethics Committee (IBC), the UNESCO Intergovernmental Bioethics Committee (IGBC) and the World Commission on Ethics of Science and Technology (COMEST) are coordinated from their secretariats in Paris HQ, with regional input from UNESCO field offices.

Darryl Macer outlined the general framework of the Sector for Social and Human Sciences to seek to advance knowledge, standards and intellectual cooperation in order to facilitate social transformations where the values of justice, freedom and human dignity can be fully realized. The Sector's task is to study what is, to anticipate what could be, and to determine what should be, in order to reduce the gap between what is and what should be. The Sector's Programme on the Ethics of Science and Technology, being one of UNESCO's five priority areas, is designed to ensure that the world remains secure for everyone by placing the ongoing revolutionary scientific and technological progress within a context of ethical reflection rooted in the cultural, legal, philosophical and religious heritage of the various human communities. This programme covers two primary areas of ethical reflection: bioethics, addressing concerns stemming from advances in life sciences; and ethics of science and technology, addressing other areas of applied ethics in relation to scientific and social developments.

In order to more effectively implement ethics and bioethics activities the networking and partnership building across the region, with global assistance and cooperation, must be improved. This roundtable follows up earlier consultations and meetings on these topics in Bangkok, and signals an increase in activities in ethics in the region. In order to help Member States build capacity in applied ethics, a system of databases is being created: the Global Ethics Observatory (GEO). Four databases will make up GEO: 1) a database of experts in applied ethics, 2) a database of ethics institutions and committees, 3) a database of teaching programmes and 4) a database of relevant legislation. The information should be searchable online and available in the six official languages of UNESCO, with some further regional languages and support being developed to complement this in Bangkok.

This meeting is an important one in a series of meetings developing in the Asia-Pacific region. In 1997 the UNESCO Asian Bioethics Conference was held in Kobe, Japan, together with the Asian Bioethics Association which was founded at that meeting. In November 2003 a Bioethics Consultation meeting was held in UNESCO Bangkok, and this March the First Bangkok Workshop on Ethics Partnerships for Asia and the Pacific, and the Fourth Session of the COMEST were held here. In December, 2005, we expect the UNESCO IBC to meet in Japan. The future involvement of participants in an expanding international network and activities will be discussed. The three UNESCO Declarations on Bioethics were also tabled to show we are aiming to implement.

Prof. Sang-Yong Song, the vice-chair of COMEST from South Korea described the past and future planned work for the World Commission on Ethics of Scientific Knowledge and Technology (COMEST). The first phase of COMEST's work focused on the exploration of ethical issues in water usage, energy, space policy, and information, as well as on the teaching of ethics. Drawing upon dialogues from the first phase, COMEST has now adopted a new approach for the second phase of its work by supporting Member States in a range of activities with regard to ethical issues related to science and technology. COMEST has also expanded its focus, looking at the ethics of outer space, ethical codes of conduct for scientists, and environmental ethics, as well as addressing specific issues of science ethics, research ethics, ethics of technology, and ethics teaching.

In the second session, **History and Practice of Ethics of Science and Technology**, there were papers from several traditions in the region, including Prof. Renzong Qiu on "Confucianism and Its Implications for Bioethics: Tradition and Modernity in China". Confucianism is mainly an ancient ethical doctrine but has sustained influence on medicine and other disciplines in China. Confucianism with its core concept ren is a care ethics which labelled medicine as an art of ren and became the intellectual foundation of Chinese medical ethics. It assumes that physicians have heavy responsibilities for patients, so they should have special virtues to be made a doctor. He said the most influential concept on bioethics is the Confucian concept of personhood, and its implications for the discourses of rights and responsibilities.

Prof. Shinryo Shinagawa spoke on Bioethics in a Wider and Probably Original Sense, examining the broader concepts of bioethics. Dr. Mohammad Hassan Ghadyani spoke on Islamic Codes in Medical Ethics. Dr. D.S. Nesy spoke on Indian Ethics and Contemporary Bio-ethical Issues, especially on Hindu ethics.

Prof. Jeong-Ro Yoon described the South Korean Ethical, Legal and Social Implications (ELSI) program has been supported since 2001 by the government-funded functional human genomics project. Faced with the rising bioethical controversies such as genetically modified food and human cloning, the ministry of science and technology (MOST) decided to include the ELSI program as a part of the research funding for biotechnology. The convergence in genomics and biotechnology, information technology and nano-technology has further complicated the ELSI and bioethics issues with widening information gap between experts and lay citizens. Given the circumstances, the ELSI and bioethics programs in Korea are at the juncture of re-strategizing the future direction. She concluded that the mission of bioethics and ELSI programs is to sensitize the community to considering ethical issues.

The first afternoon session included a number of working reports on **Bioethics Education in Schools across Asia and the Pacific**. Dr. Lindsey Conner introduced the theory of bioethics teaching, in her paper "The Importance of Knowledge Development in Bioethics Education". She discussed the importance of exploring prior content and procedural knowledge, so that students can extend and develop this knowledge when studying and learning about issues. A case study of a final year high school biology class in New Zealand illustrated aspects of a unit of work that were designed to enhance student's ability to critically consider bioethical issues related to cancer. This investigation indicates that students' prior knowledge of both content and learning processes influenced the level of achievement in their essays. Pedagogical implications are discussed in relation to the enhancement of knowledge development

in bioethics education. It was noted by all present that the fact that New Zealand gives credit to an essay on bioethics (20%) in the senior biology examination since 1993 has been a major factor in promoting the development of bioethics education there.

Mr. Senthil Kumaran presented data from trials in India, in Teaching Moral Values for High School Students: an Indian Context. Ms. Maryann Chen Ng presented results from Bioethics Education Trials of the Eubios Ethics Institute Bioethics Education project at the Ateneo De Manila High School, in the Philippines. Dr. Duangkamol Chartprasert discussed Internet Self-efficacy and Student-centered Learning in a Thai Secondary Schools.

Next there were four papers from The Middle School attached to Beijing Normal University, with an Introduction of the Eubios Ethics Institute Bioethics Project in the High School Affiliated to Beijing Normal University in the Past Two Years, by Liping Wang, Jianzhi Li, Jinhua Fu, Jing Zhuo, Yongmei Gu, Yuan Yu, on behalf of collaborating teachers. The High School Affiliated to Beijing Normal University (BNU) is the first school that offers the bioethics course in the mainland of China. That course has lasted for two consecutive years. Our school identifies the bioethics course as a compulsory subject for the senior II students. Biology teachers take turns to give lectures. There was also an interesting paper on drug addiction, which is a new topic introduced in Beijing with regional relevance, by Ms. Jianzhi Li. Ms. Yuan Yu introduced the topic Organ Donation and Organ Transplants.

Dr. M. Selvanayagam introduced Environmental Education and Ecoethics-Current Trends in Education in India. In a recent judgment, a bench of Judges in India, Justice Shri. N. Santosh Hegde and Justice Shri. B.P.Singh have asked the NCERT, AICTE and all the State Governments to explain the serious lapse on their part on imparting environmental education. The Court had directed the University Grants Commission to prescribe a course on Environment at the graduation and post graduation level. Thus making the environmental education compulsory subject at every level of higher education is a welcome move to inculcate the value of environment so that the environment we live in will be livable also in the future.

Drs. M. A. Jothi Rajan and Arockiam Thaddeus introduced further results of the Eubios Ethics Institute projects in papers on Value Education: A Treasure of a Nation, and “Can Formal Education Promote Beneficence?” Dr. D.S. Sheriff introduced Perspectives on the Role of Sex Education in the changing cultural scenario and psyche of Indian Personae in the 21st Century. There are also functions of bioethics education to increase respect for life and persons.

Consulting the Public in the Setting of Bioethics: Regulatory Framework and Policy in Malaysia was a paper introduced by Dr. Muhammad Nizam Awang Ali. He argued that while Malaysia is still working on the comprehensive regulatory framework, the existing bioethics policy must diligently consider a tacit guideline on how the public opinion will effectively address the issues according to the proper procedures and findings. The example of the standing committee set up for assisted reproductive techniques (ART) drawn up by the Malaysian Medical Association and Obstetrical and Gynaecological Society of Malaysia in 1999 was described. Public discourse and collaborative networks amongst the medical regulatory bodies and the non-governmental organisation were also discussed.

The second day started with a session on **Environmental Ethics**. The paper of Dr. Suliana Siwatibau was on Ethical Dimensions for Sustaining Pacific Island Environments. The ethical dimensions of economic and social development were described in the current status of Pacific island countries where there is growing

disparity in opportunities and wealth distribution accompanied by increasing poverty. Ethical dimension of governance and the role of religions were discussed. Dr. Elise Huffer described some of the more theoretical background in her paper “Land and people as the measure: A Pacific ethic of place and prudence”. The land (including the ocean) feeds the people, literally and figuratively: it is the source, the foundation, it produces and creates, and it is never an inanimate commodity. Pacific societies have a strong consciousness that going against the path or the way of the land (*salavakavanua* in Fijian) is detrimental.

Ms. Mary Ann Chen Ng presented results of field work in a UNESCO Natural World Heritage Site in the Philippines, “Anthropocentrism isn’t a dirty word: reflections on nature and life at the margins”. Prof. Abhik Gupta described Indian views in “From Biosphere to Technosphere to Biotechnosphere: the Indian Scenario in an Eco-Ethical Perspective”. He mentioned that in India, urban centers were established in the Indus Valley as early as in c 2500 B.C., and starting from c 1000 B.C., large forested tracts were cleared, especially in the Ganga valley, by the Vedic people. Nevertheless, these effects were mostly localized, and by and large the Indian society continued to live in harmony with nature, thereby being governed by the principles of the biosphere concept. While trade flourished and cities grew during the successive empires that followed, including those during the Pathan and the Mughal periods, the Indian villagers essentially led a life of ‘ecosystem people’, living off the resources drawn from a very limited catchment area.

Dr. Nacanieli Tuivavalagi presented related ideas from Samoa, in “Learning from our forefathers: A foundation for bioethics in the Pacific islands – with emphasis on issues relating to agriculture and the environment” Dr. Fakrul Islam described “Ethical Aspects of Using International Rivers: Some Policy Proposals for Optimal Sharing of Teesta River Water” which has regional relevance in the shared river water resources in Asia.

Dr. Jan Wawrzyniak described Theoretical Foundations of Neonaturalistic Environmental Bioethics, introducing some new terms to philosophical debate in the network of persons present. Prof. Aruna Sivakami asked “Can education in environmental ethics alone solve problems of loss of biodiversity in Developing Countries?” Mr. Morgan Pollard emphasized the global scale of environmental ethics in “Spreading the Wings of Bioethics: Issues of Scale and Priority”. Dr. Wardatul Akmam gave more examples in her paper “Inculcation of Environment-friendly Ethics as a Prerequisite for Sustainable Development in Bangladesh”. The main theme of her paper is that internalization of ethics relevant to protecting the environment and putting them into action by all human beings is indispensable to achieve ‘sustainable development’. The agents, through which environment-friendly ethics can be inculcated within individuals, include the family, the peer group, religion, education, the mass media, can be used to embed pro-environment ethics within the minds of individuals, and ultimately achieve sustainable development. This session reflected on what environmental ethics is; the meaning of sustainable development; major environmental concerns in many regional countries in efforts towards development, and the ways in which environmental ethics has been practiced over time and how it is developing in the modern context of globalization.

The afternoon started with a session on **Ethics of High Technology**, with a paper by Prof. John Weckert on “Should the precautionary principle be applied to nanotechnology?”. The precautionary principle has wide support and is thought by many to be a useful strategy for action, especially in the environmental and health

areas. A recent report extending the scope of the principle to include nanotechnology, artificial intelligence and robotics was discussed.

Dr. Irina Pollard then applied this to another area, in “Advances in Neuroscience and the Precautionary Principle: What Can Bioscience-Bioethics Teach Us?”. Recent advances in brain fingerprinting, stem cell research and intracerebral grafting were described. Ms. J. Mary Vimalakumari Kalaiarasi then examined whether some animals had “Sensory Abilities Beyond Human”, looking at the Tsunami behaviour of animals.

Ms. Mary Josephine Rani discussed benefits and ethical limits of transgenic animals. Dr. Pornvipa W. Chanakool described Science, Technology and the Supernatural in Contemporary Thai Novels.

Prof. John Buckeridge in his paper “Applying Ethics in a Professional context: what can we hope to solve?”, described some of his work with UNESCO in environmental ethics following meetings to describe universal bioethical norms.

Dr. Ivo Kwon described the ethical issues and the current state of embryonic stem cell research in Korea. Dr. Jasdev Rai described the Indian problem of Gender Foeticide.

The next session was on **Ethics and Policy across the Pacific and Asia**, and started with Dr. Peggy Fairbairn-Dunlop from UNESCO Apia who asked “Is there a ‘greater good?’ Ethics policies in the Pacific”.

Prof. Samantha M.C. Pang described a comparative study “How do Chinese and Japanese patients characterize the good nurse? A cross-cultural study of virtue ethics”. Based on the rich descriptions given by the Chinese and Japanese cancer patients, they found that ‘Virtuous comportments’ and ‘virtues residing in a cultivated heart’ are essential constituents emerging from the Japanese and Chinese patients’ accounts of the good nurse respectively. Both Chinese and Japanese patients experienced positive transformation from the vulnerable state of being in their encounters with the good nurse. The variability regarding the kinds of virtues that constitutes the good nurse in China and Japan are examined. Commonalities rooted in the Confucian virtues of “cheng”, “ren” and “li” are observed, but with different emphasis in the two countries.

Prof. Paungphen Choonhapran then described Bioethical issues in intensive care nursing in Thailand. Dr. Alireza Bagheri introduced work he is doing on resolving some controversies over medical futility.

Dr. Siriphen Piriya-chittakornkit described risk theory in “A Conception Risk in Decision-Making”. Then Dr. Nares Damrongchai introduced an Asian research being done on “DNA Technology in Asia-Pacific: Scenario for 2015”.

Dr. A.D. Valsala introduced animal rights issues in “Awaiting Liberation of Animals from Experimental Clutches?”, followed by Mr. Masato Motoki who gave observations on ESD, animal rights and culture. Then Dr. Mary Vimalakumari Kalaiarasi followed up with another paper on animal rights discussing ethics of Animal Rides

The next day, 13 September, began with the session on **Medical Ethics and Education**, with Prof. Noritoshi Tanida describing “Ethical views of first-year medical and nursing students in a joint bioethics course”. The views of 85 medical and 53 nursing first-year students were studied during a joint bioethics course. A Nepalese view was introduced by Subrata Chattopadhyay with “An Earnest Appeal: We Need Spirituality in Medical Education”. Dr. Aamir Jafarey introduced Bioethics

Education in Pakistan: Challenges and Prospects. He described the establishment of the Centre of Biomedical Ethics and Culture at the Sindh Institute of Urology and Transplantation, Karachi.

Prof. Anoja Fernando introduced “Bioethics Education in Sri Lanka: the Current Status”. Based on a meeting she presented data to show that while ethics teaching is established to a certain extent in the medical faculties, the other faculties in the universities have not yet introduced the teaching of bioethics into their curricula. A National Bioethics Committee was set up in 2003, under the aegis of the National Science Foundation. One of the objectives of this committee is to encourage and facilitate the introduction of bioethics into the science based curricula of all the national universities. Dr. Juraporn Pongwecharak introduced a project on the Development of case study materials for teaching research ethics in Thailand.

Sr. Dr. Daphne Furtado and Dr. Karuna Ramesh Kumar introduced ethics teaching at St. John’s Medical College, Bangalore, India, and the program for Ethics in Paramedical Studies. Dr. Dena Hsin Hsin-Chen gave a paper on “To Accomplish the Life Education Mission through Having Bioethics Courses in Medical School.” Dr. Heiko Ulrich Zude introduced European comparisons in “Biomedical Ethics Education in post-communist Eastern Germany”.

Dr. A. Nalini described research in India in “Ethics Education in Medical Curriculum: Interns’ perspectives”, from a survey conducted in four major medical colleges in Tamil Nadu. 68% of the interns felt that they had opportunities to learn about Ethics in their MBBS course and were able to discuss the ethical issues with the faculty. Most of them cited Forensic Medicine and Community Medicine as specialties where they learned about ethical issues. 75% wanted Medical Ethics as a separate subject as study of ethics will have an impact in improving professionalism.

Dr. Maude Phipps described teaching projects, including through Eubios Ethics Institute bioethics education project, in “Bioethics Education in Tertiary Settings – The University of Malaya Experience”. In 2003, bioethics was designated a core subject for all other undergraduate courses in the medical faculty.

The next section was on **Bioethics for All and South-South Dialogues**. Prof. Soraj Hongladarom introduced “The Study of Bioethics and Interdisciplinarity”. He argued that bioethics exists over and above the traditional disciplines and cannot exist independently of them.

Dr. Jayapaul Azariah described work on Eubios Ethics Institute bioethics education project in “Responses to Bioethics education Across Cultures – A survey to assess the bioethical need across Social Strata in Tamil Nadu, India”. Class trials were carried out in Chennai and Dharmapuri District in Tamil Nadu. In the former, the students were drawn from Higher Secondary and Matriculation schools, University Students from Anna University of Technology, Retired Fisheries Scientists, members of the Study Centre, Madras Diocese, Church of South India and a few other centers of higher education. The paper provides comparative results of the class trials and suggests a few recommendations before adopting the text for global use.

Dr. Blaise Bikandou introduced his expertise from Africa, in “Impulse of ethical research in life science and health systems as foundation of development in Sub-Saharan Africa”. The health system dysfunctions coupled to the economic disparities and iniquities remain a real challenge for years to come. The identification of obstacles and implementation of health research activities are critical requirements for Africa. He presented how taking in consideration and integration of anthropological,

socio-cultural and economical specificities of Africa and promoting ethical research might lead to the effective input on people living in Africa.

Prof. M. K. Tadjudin from Indonesia introduced some Ethical Issues in the Face of Scarce Resources. He argued six ethical principles are relevant for health care leaders. They are: beneficence, non-maleficence, respect for persons, justice, utility, and truth telling. In the field of medical ethics, the fundamental principles that guide decision making are autonomy, beneficence, and justice. Policy-makers, managers and providers who face difficult resource allocation decisions may find distributive justice useful in making difficult decisions. Dr. Tran Han Giang introduced Challenges for gender studies in the era of ever-growing development of biology.

Prof. Kwami Christophe Dikenou introduced “The Teaching of the Ethics of Science and Technology in African Universities”. He argued that teaching ethics at African universities is not a luxury but rather a necessary task to promote and reinforce through International Cooperation.

Dr. M Al Mamun introduced “Informed Consent in Health Research: Current State of Knowledge among Physicians in Bangladeshi Perspective”. Findings of this pilot study revealed that, though most of the physicians were familiar with ‘informed consent’, many of them did not possess sufficient knowledge on this key component. Thus, Bangladeshi physicians need to be trained on such ethical issues more.

Dr. Ken Daniels discussed the Governance of Donor Insemination. DR. Miyako Okada-Takagi asked “Is the era of the therapy by tailor-made stem cell coming?”

The next day, 14 September, there was a full day field visit at Kasertsart University - Kamphaeng Saen Campus, for the session on **Biotechnology and Bioethics**, hosted by Dr. Orawan Kumdee. First Dr. Kanokwan Romyanon introduced “Transgenic papaya resistant to viral disease: a study for crop improvement in Thai papaya “, then Dr. Parichart Burns talked on “Delayed ripening characters associated with genetically modified papaya (*Carica papaya* L.) with antisense ACC oxidase”. Dr. Wichai Kositratana described the government Biosafety study of GM papaya in Thailand, then Dr. Pahol Kosiyachinda presented more of the history in “The Transgenic Thai Papaya Story – A Milestone of Thailand toward a Biotech Crop Country”.

There was also further examples of agricultural technology introduced with Dr. Voravit Siripholvat, “Description of Thai indigenous chicken plumage colour and broodiness using classical and molecular genetics”, and a demonstration and discussion at the cattle breeding center at Kasertsart University. The participants were divided into two groups for field site visits to observe GM papayas and cattle breeding. Despite the torrential rain that day the field exposure was of interest to the persons to see the real context of Thailand.

The biosafety and regulatory aspects were further discussed by Prof. Don Chalmers in “Is there a Need or Space for Gene Technology Ethics: An Australian Perspective”, who described the workings of the Gene Technology Act. Dr. Ellen M Kittson described the Victorian Governance of Biotechnology. Prof. Kazuo N. Watanabe gave a paper on “Ethics in Public Communication on Agricultural Biotechnology”.

Dr. Minakshi Bhardwaj gave a paper on “Constituting ethics into biotechnology policies and developing international relations”, discussing the roles of international agencies. Dr. Tomiko Yamaguchi introduced “An Analytical Framework for Understanding Agricultural Biotechnology Controversies”, with studies of the Indian transgenic cotton (Bt cotton) social controversy. The social constructionist approach

to social problems provides an overarching framework in which to analyze the issues, and was described.

The last day started with a session on **Public Health and Ethics of Research**. Darryl Macer described the “Ethics of use of genetic control methods for infectious disease”. Naoko Kimura presented results of surveys on gauging attitudes towards genetically modified mosquitoes in Japan. Dr. Xiaomei Zhai introduced “Research Ethics in China: History, Status quo and Issues”. Dr. M Saidur Rahman introduced Bangladeshi experience in “Current State of Research Ethics in Developing Countries: Where Do We Stand?”.

Dr. Mihaela Serbulea introduced UNU research on “Utilization of traditional knowledge and support of access to health”. A policy report including case studies from Canada, Cote d’Ivoire, India, Japan, Mongolia, Nepal, Peru and Trinidad & Tobago was described, reflecting the experiences in various cultures to incorporate non-standard methods in the main-stream health provision systems. Dr. Irene J. Taafaki introduced results of a project in the Marshall Islands, “Avoiding Biopiracy? Protecting Medicinal Knowledge and Plants”. Healers and researchers express strong reservations that both the genetics of medicinal plants and the once closely held knowledge of healers will be exploited and lost to external commercial biotechnological interests. This paper described the success and challenges of a collaborative project which aims to provide public access to the specialized knowledge in the use of 56 plants by 40 women healers in the Marshall Islands while both preserving the private right to the ownership of the formulas, and the security of the common, free and self-regenerative species of medicinal plants of the Marshall Islands.

The final session was on **Governance Models for Genetic and Reproductive Technology**, and Prof. Leonardo D. de Castro introduced “Informed Consent: An Essential Requirement for Essential Health Research”. Prof. Yanguang Wang described “Ethical Issues on Human Embryonic Stem Cell Research in China”. Prof. Don Chalmers described “The Regulation of Stem Cell Technology: International Approaches to Restriction or Permission”.

Prof. Jürgen Simon discussed current issues in Biobanking and Ethnic Monitoring. Dr. Brigitte Jansen made “International Comparisons of Regulation of Biobanks”. Prof. Le Dinh Luong gave “Some Thoughts about Implementation of International Bioethics Declarations in Vietnam Practice”. Dr. Chan Chee Khoo introduced “Market-driven Biomedical Research: A Major Challenge to Everyday Bioethics”. Dr. Amru Hydari Nazif introduced the “National Bioethics Commission of Indonesia in the framework of national scientific research and technological development”. The range of cultural situations in the region alter the needs and priorities of each country and demand appropriate follow-up in the region.

Follow-up

The roundtable also had two satellite meetings on the ongoing bioethics education textbook project, on the 13 and 16 September, attended by 60 participants. There was discussion of the variety of levels to teach bioethics, and the need for continued meetings and networking.

The power point files, transcript of discussion and papers will be made available on the RUSHSAP website. A proceedings volume in hard copy and in electronic copy in DVD format will be produced to share the discourse of the meeting.

There is a need for various forms of meeting, but providing this rich collection of experts in a cross cultural setting, with a wide range of ages and disciplines, was enriching to all who participated. The papers provide useful data for mapping the bioethics in the region, and for follow-up in sub-regional and national level meetings. The results were applicable to all areas of the ethics programme of UNESCO, with scope for further overlap with other sectors and other agencies. These are being explored.

Appendices given included:

Abstract Book (See July issue of *EJAIB*)

List of Participants (available separately)

Universal Declaration on the Human Genome and Human Rights

Universal Declaration on Bioethics and Human Rights

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