

Global Consultation on Genetics and New Biotechnologies
Kopanong Conference Center, Johannesburg, South Africa
December 2-5, 2007

Record of the Consultation

Introduction

This is a brief report of the global consultation, not a complete and exhaustive record of the event. This report will document the process for the consultation, the location of additional information on the presentations, and provide summaries of the small group and plenary sessions. Appendices include information on the reference groups, working groups, and the final *aide memoire*. The panel presentations were collected during the event and distributed on a CD-Rom. A participant list is available separately (contact noteboom@ccc-cce.ca).

Sunday Evening

The event opened informally on Sunday evening with a welcome dinner and brief circle introductions led by Co-chairs Olivia Masih White and Stephen Allen.

Monday Opening Worship led by Desmond Lesejane

Singing, Prayer, Blessing, and Reflections on Genesis 1:26 – 28 and Romans 8:18 – 27

Welcome, Program Review, Our Common Task

led by Co-chairs Stephen Allen & Olivia Masih White

By the end of three days, we hope to build relationships, raise issues and make a commitment to go back to our regions and work together, drawing on the resources we have shared here.

Since the 1970s, biotechnology issues have been on the table at the World Council of Churches – although little attention has been given to them in the past two decades. The last public document is dated Moscow 1989, when many of the technologies we are looking at now had not yet been invented.

The participation of the World Council of Churches in the Agenda 21 processes did include some comments on the ownership of life questions, as did the biodiversity section of the 1993 Earth Summit. At the same time, these church documents have shown some bias toward certain social groups. Until two years ago, there has been no bottom-up approach. The issues have been treated in isolation rather than in the manner in which they have been converging.

The work in Geneva involved a very small circle, a factor in blocking a process of outreach. The beauty of this meeting is our diversity. We, the participants, are the World Council of Churches, and we own this process; it depends on us.





We cannot tell other regions or peoples of the world what they must do. What we can do is try to identify commonalities and ways we can work together, even though we cannot go deeply into all the issues and resolve them.

We have to rely on our own responsibility and ownership. If we rely on others, we may create a bottleneck. Our task is to become a resource for each other and thus help our churches' national and global bodies to do their work, in collaboration with us. Churches are not alone in this. We reach out to activists, scientists, and build on the interaction of these different groups.

We are building relationships in a process of discernment about ways to support one another on selected common issues.

We are sharing how we can bring our theological knowledge and perspectives together, not blocking one another because we have different approaches, but unleashing the synergies that are present.

We are becoming clearer on the most important issues we can address together, the next steps we can take, and how the bodies that are here can be involved in the facilitation of such a process.

We agree that concern for others should not result in "polite ecumenism," a lack of accountability. Biotechnology is coming at all of us; we need to mutually find ways to address it together.

By listening to one another, we can discern what our own role might be.



Presentation on South Africa, Genetics and New Biotechnologies by Lenka Bula Puleng

A memorable phrase: "Biotechnology, like apartheid before it, thrives on the indignity of peoples and cultures."

Please contact Lenka Bula Puleng lenkap@unisa.za for a copy of her presentation, which she will be in its final form by the end of December 2007.

During the follow-up session, moderated by Eddy Makue, Charmaine Treherne shared her work regarding the development of a consumer-driven labelling campaign for genetically modified food in South Africa.

Jim Rusthoven asked whether clinical research organizations active in South Africa are a sector that deserves our attention, especially their ethical responsibilities regarding treatment and use of human subjects.

Garth Minott asked further detailed questions regarding patenting and the use of blood samples and tissue cultures.

Leslie Lowe asked about the link between morality and markets, the conflict of values. How might biotech be used by more traditional farmers? Does it yield any benefits? How is Monsanto marketing its products to small-scale, traditional farmers?

James Bhagwan shared news from the Pacific on decisions taken there, in collaboration with the leadership of local churches, to say “No” to attempts to take genetic samples from the Tonga people.

Nicco van Nordwyk shared news of Biowatch in South Africa. It is involved in a court case on access to information regarding the right to know about permits given to farmers using genetically modified crops. The case was won; however, costs were awarded to Monsanto who had intervened on the side of the Department of Agriculture.

Celia Dean-Drummond asked about the weakness of legislation in many areas, including clinical trials with human subjects. How can the church support those working to strengthen legislation?

Desmond Lesejane asked about the role of the church, beyond lobbying, when people clearly say no to some of these developments. Access to the law, both for churches and small-scale farmers, is costly.

Panel on Science Perspectives: Where Biotechnology is Headed moderated by Richard Fischer

For a copy of their presentations, please contact Tabitha Gnanapriya Rao for her Power Point on “What’s Happening in the Plant Kingdom?” (Tabitha_gnanapriya@rediffmail.com); Gregor Wolbring for “Atoms, Basepairs, Bits, Genes and Neurons: Ultimate Designer Tools” and “The Berlin Wall Is Crumbling” (gwolbrin@ucalgary.ca); and Jim Rusthoven for “Scientific Developments in Human Genetics and Biotechnology” (jrusthov@mcmaster.ca).

Panel Notes from the Moderator, Richard Fischer

- 1) Genetic engineering and biotechnology referring to plants means inserting genes into plants to make them resistant to insects, negative environmental conditions, and diseases. It also means to enhance them in order to:
 - make them more nourishing (Golden Rice, for example);
 - produce vaccines, proteins, enzymes, pharmaceuticals, cosmetics or flavours.There are also economic and justice issues linked to patents and their criteria.



- 2) There was a wealth of information about
 - synthetic biology (designing the genome from the bottom up);
 - changes of vocabulary, e.g., biomedicine becoming nanomedicine (atomic level);
 - New Emerging Sciences & Technologies (NEST): information technology, biology, nanotechnology, genetics, cognitive science, synthetic technology, chemistry, physics.

These impact many fields of WCC activities (JPSC):

- ableism connected to many other “isms,” such as racism and sexism;
- cognition used as a means for value, judgments and leading to discrimination;
- transhumanism linked to health model, human security, etc.;
- transhumanisation of theological concepts, including the concept of “God”.

3) Epigenetic testing:

- genetic testing and genetic selection;
- epigenetics, which studies how gene expression changes from one individual to the other; ways to hinder the expression of genetic diseases;
- gene therapy, which introduces genes into cells through viruses. There are risks and dangers: psychology, cancer, issues of confidentiality (insurance, for example).



From the conversation and questions that followed the presentations:

- The role of the churches should be to express scepticism about human hubris and arrogance (e.g., we know very little about how genes work).
- Many promises and prospects are never realized.
- We should “help each other to raise the child” (Jim Rusthoven), i.e., collectively to raise our voices once we have identified what we want and what this means concerning scientific developments and technological challenges.

Plenary *Synthesis: A Summary of What We See* led by Co-chairs Olivia Masih White and Stephen Allen

Table Group Questions

- 1) What are the key issues we’ve heard?
- 2) What issues did not get raised?

Table 1

- How does the church deal with these new developments?
- Plea for solidarity.
- Need to deal with the ambiguity and complexities.
- Plea for labelling genetically modified foods.
- Need to be proactive, but not so far ahead that we appear to be in a fantasy world.
- The importance of what it means to be human.
- The need to lead, be prepared, and not react.
- Ambiguity of science as bane or blessing – need for discernment.
- Practices that are illegal in the North, yet legal in the South.
- We don’t know what we don’t know, haven’t yet seen.
- Need to better understand the specifics and the theologies that inform us.

Table 2

Key issues raised so far:

- Agricultural technologies.

- Unethical clinical trials on human subjects.
- Social context – commercial processes – exploitative.
- Tension between IPR and dominant legal frameworks vs. people’s knowledge and the dignity of life.
- Need for collaboration between South and North.
- Need for vigilance and engagement up front.
- NCBIS: nanotechnology, cognitive science, biotechnology, information technology, synthetic biology – convergence, lack of governance.
- Ableism and the challenge of transhumanism.
- Benefits of GMOs.
- Gene imprinting and the overlap with cancer research – also connected with stem cell technology.
- Shutting off genes, including undesirable genes.
- Need for critique of corporate agenda.
- Epigenetics.

Issues not raised so far:

- **New Reproductive Technologies**
- Presenting the science on its own reinforces the dominant, positivist philosophy behind the science – “science” is loaded, however.
- **Issues of governance – ethical or philosophical frameworks – we come up against corruption which subverts whatever structure there might be.**
- The difficulty of organizing such a multi-disciplinary conference.
- Eugenics assumptions behind choices of gene manipulation.
- **Differing science perspectives – philosophy of science.**
- Market-driven technologies.
- Consequences of monocultures and food production.
- Patenting of indigenous plants – biopiracy.
- Options of how to address our publics on these issues.

Table 3

- Pursuit of justice.
- Who benefits – winners and losers.
- How to benefit the poor.
- Destructive of small farmers and their community.
- Is tradition holding us back, including the demise of tradition?
- International governance structures.
- Convergence with other life-threatening realities such as war and poverty.
- Identify the actors.
- Search for a prophetic voice.
- Vital that the faith communities find the capacity to lead.

Table 4

Content

- Cultural aspects and concerns raised about South Africa can be carried forward.
- Complexity of the issues; where is the connection to reality?
- The scientific part is difficult to understand for non-scientists which would affect people in the churches.
- Need to find ways to give people an understanding of what the scientists mean.
- Lack of critical analysis and differentiation between different types of biotechnologies.

- The cultural and emotional aspects: your cultural background and experience has a bearing on how you come into the group.

Methodology

- Language is a barrier, including the speed of the presentations. English is a second language for many.
- When many questions come up, they are collected, but only one is answered.
- What about reflective time?

Table 5

- Plant biotech, genetics, nanotech, GMOs.
- Commercial interest behind these innovations not thoroughly discussed.
- Economic, political intentions behind this agenda.
- What kind of civilization is being imposed on us?
- How might African theologians respond to these issues?
- Players: who benefits? Who drives the process?
- Cloning and stem cells – different theological perspectives.
- Nothing new so far; we speak as if God does not exist.
- Theologians need to respond – are they ready?
- Need for an anthropology of the science behind all this.

Table 6

- The churches could contribute, to guide arguments re patents and life.
- The European Union system allows for more challenges to patents.
- Link of financing for research and future applications (farmers get indebted to the GMO technology).
- Presentation seems to have focused on the advantages, not the disadvantages.
- Conflict of interest of the people involved in some of the research.
- Need to be concerned about all perm-line changes in cells, whether accidental or intentional.
- Cloning of animals and transgenic animals should be in the debate.
- Accountability and liability – who is responsible when something goes wrong?
- Occupational health for the workers, whether on the farm or in the lab.
- Products developed in the North are being proposed or dumped on countries in the South.

Synthesis of the session (provided by Olivia Masih White)

- 1) Can churches guide arguments to challenge patents on life?
- 2) Financing is linked to research and biotech applications (for farmers indebted to the GMO technology).
- 3) Need to point out also the disadvantages of biotech, not only the advantages.
- 4) Conflict of interest: people who have vested interests in biotech are often the ones making the rules to regulate it.
- 5) Need to be concerned about all germ-line changes in cells, whether accidental or intentional.
- 6) Cloning of animals and transgenic animals should be included in the discussion.
- 7) Liability: Who is accountable for the damage done by applications of biotech?
- 8) Occupational health issues: what is the impact on workers, whether in the lab or in the field (farm)?
- 9) Products developed in the North are imposed or dumped on countries in the South.

Tuesday Opening Worship led by Majaha Nhliziyo and Eunice Kamaara



Prayer, Singing and Benediction.

Tuimbe na
Kumsifu bwana

Nitatangaza neon lake bwana
Kwa mataifa bali bali.



Panel on Global Perspectives: Challenge of Biotech to Societies and Cultures in the Global Community moderated by Eileen Lindner



For a copy of their presentations, please contact Priscilla Settee for a PowerPoint on “Genetically Modified Organisms: Some Considerations” (Priscilla.Settee@extfc.usask.ca); Alvaro Salgado Ramirez for “Mexican Identity at Risk: GM Contamination of Native Maize” (cenamidad@terra.com.mx); and Pradip Thomas for “Thinking Through Information Technologies and the Life Sciences” (Pradip.thomas@uq.edu.au).

Panel Notes from the Moderator, Rev. Dr. Eileen Lindner

This session was introduced as one which would enable us to encounter biotech’s adverse consequences, not only for individuals and agriculture but for whole peoples and their cultures. The session will also acquaint us with the important role of information technology in both the new science and the new economy.



Indigenous peoples, both North and South, are more apt to be placed at risk by biotech. Dr. Priscilla Settee, Director of the Indigenous People’s Program at the University of Saskatchewan, a member of Cree First Nations, presented the experience in Canada and advocacy at national and United Nations levels. Her presentation was provocative, particularly in relation to issues of patents and spiritual and cultural heritage.

Dr. Alvaro Selgado Ramirez from the National Center for Indigenous Aid and Mission in Mexico City shared the story of the impact of GMOs on the maize culture of Mexico in economic, agricultural and cultural terms.

Dr. Pradip Thomas of the University of Queensland, Australia, presented a paper on Information Technology and Life Sciences. His perspective included the notion that biotechnology is a subset of information technology.

Discussion followed.

Roundtable on Regional Perspectives: An Inventory of Issues and Perspectives from Different Regions facilitated by Peter Noteboom

Latin America

Social and environmental impacts of soy monoculture in Paraguay and Argentina

1. Producing countries
2. Consequences:
 - environmental, socioeconomic, health impacts and human rights
3. Future threats
 - biodiesel, sustainable soy, hidrovía
4. Resistance in Latin America
 - Paren de Fumigar, Argentina
 - Peasant Front, Paraguay
 - Platform against monocultures, VC Brasil
 - Forum against Agribusiness
 - Bolivia's situation



Argentina: from the World's grain barn to a mere soy republic

- fewer than 17 million hectares (ha) of GMOs.
- 16 million ha of GM soy.
- 100% Soy Roundup Ready.
- Dominating 45 % of the agriculture surface.
- Monsanto released in '96 without patent.
- Argentinas GM soy contaminated other countries.

Paraguay: Farmers vs. peasants

- 2 million ha
- 80% RR soy, legalised in 2004.
- Soy expands 250,000 ha every year (more than 8.5%)
- Soy covers 22% of the agriculture surface
- 81% of agriculture NBP
- 4th worlds exporter

Brazil: Oldest soy producer in Latinoamerica.

- Soy covers more than 20 million ha.
- Amazon, 2 million ha deforested.
- GMO contamination at 30 % at the national level.
- Rio Grande do Sul 100 % GM contamination.
- Biggest exporter to Europe.

Bolivia

- Soy production in Santa Cruz
- GM soy present.
- Production dominated by large scale landowners.



- Land controlled by 10 Bolivian families and foreign enterprises, many Brazilian.
- Cargill Bolivia has built the harbour Aguirre.
- Challenge to break this pattern by the MAS Land Reform.

Corporate concentration of the land

- Corporatization: The *pooles de siembra*
- Between 1992 and 1999, the number of small and medium size producers decreased from 170,000 to 116,000. The average size of production unit increased from 243 has. to 357 has.

Increased use of agrotoxics

- Scale monocultures are more vulnerable to pests and there are problems with resistant weeds, fungi and insects.
- The use of glyphosate increased from 1l/ha to 10 l/ha since the release of RR.
- Increased use of 2.4D, 2.4DB, atrazina, paraquat, insecticides such as endosulfan, cypermetrina and fungicides.

Human Rights

The Soy expansion produces illegal evictions, paramilitaries, criminalization of the Indigenous and peasant communities, criminalization of the poverty, weakening of democracy, corporate impunity.

North America (Canada and US) Summary Report

Government policy It is stated government policy in both the US and Canada that innovative technologies are a key strategy for economic growth and job creation. Significant dollars are going towards research and promotion of these technologies.



Patents Patents are used as a competitive trade advantage. There have been legal challenges, however, in both countries. In Canada, the *Oncomouse* case (i.e., a patent on the Harvard University *Oncomouse* – a whole mouse) went to the Supreme Court of Canada. Many environmental non-government organizations had been involved in this case and applied for *Friend of the Court* status to intervene. The Canadian Council of Churches, along with the Evangelical Fellowship of Canada, also obtained *intervener* status before the Supreme Court. The Churches main argument was around the

commodification of life. The Supreme Court ruled on the side of the Churches. The biotech industry insisted that unless the Patent Act was changed to allow for the patenting of higher life forms, it would leave Canada. Neither has happened. There are also a couple of court challenges in the US where civil society groups have challenged particular patent applications. In addition, there is the *Percy Schmeiser* case in Canada and a couple of class action suits against Monsanto.

Human health issues High tech, genetic health care measures are big business in both Canada and the US. Huge amounts of dollars go into research and commercialization. One major concern is where are the dollars are coming from for this type of health care. Is the money being taken away from preventative care? There is also a health care link to nanotechnology.

Nanomaterials are already in many consumer products, such as sun screen and cosmetics. Nano will be used in medical procedures. Governments are not tracking nanomaterials in commerce; there are no regulations for products made with nanomaterials. This industry is in its infancy. In Canada we think we may be able to engage in the policy development process.

Food and agriculture GMOs were developed in our countries for a petroleum-based, industrialized agriculture system. There is little traditional farming left. But there is a pushback from organic farmers and some communities – court cases in each country challenging Monsanto; campaigns for GMO-free zones, labelling, and the preservation of communities and a way of life.

Environment There are growing incidences of superbugs and superweeds leading to increased pesticide use and gene contamination. We have evidence that GMOs affect the health of pollinators such as bees. In the US, the biggest seed company has been bought out by Monsanto.

International Convention on Biodiversity Canada and the US are two of the countries working to undermine the current ban on terminator seed technology.

Government Advisory Committees In both countries there are government advisory committees, with token public participation. In Canada, this committee has been dissolved and a new science and technology advisory committee established, made up solely of scientists from academia and business.

Civil society groups Groups are organizing in each country. There are several networks in the US and the Canadian Biotechnology Action Network has just been set up in Canada.

We hope that we can come up with strategies to work together on these issues.

Europe

- Embryo status
- Stem cells etc.: different laws, political discussions. PGD/therapeutic cloning
- GMO – Barvarian farmers – agrofuel. “Bio”?
- Talk with politicians (in our pews!)
- Justice question

Richard Fischer is involved in direct political input through the Church and Society Committee of the Conference of European Churches (CEC)



Asia

Access vs. affordability; Corporations vs. the poor

Impact of globalisation in people, land and markets

- Families who grow food are starving.
- Prices going down, input costs going up.
- Severe distress due to failure of Bt Cotton crops caused 150,000 farmer suicides in three years in three states (Karnataka, Andhra Pradesh, Maharashtra).



- Changing land use and labour demand causing loss of agricultural employment.
- The increase in India's GDP hides the serious distress in the primary (agricultural) sector and underscores widening income and equity gap.
- No political will to protect small farmers, and landless agricultural labourers and tribes who are being dispossessed of land and homeland, becoming ecological refugees.
- New technologies are major drivers of these processes.
- Governance issues including corruption and non-implementation of protective legislations contributes greatly.
- The regions which were the greatest "beneficiaries" of the so-called Green Revolution are also the places which now display the greatest gender gaps in population – as low as 750 women to 1,000 men – in Punjab and Haryana. The social impacts of high-input agricultural are deep and fundamental.

Middle East

As you know the Middle East is a turbulent area of the world.

As mentioned in the Toronto Report of 2006, Lebanon, with the assistance of the Middle East Council of Churches, brought the issue of bioethics and biotechnology to the public in a national conference. As a result, a National Consultative Committee on health and life sciences was established. It includes both Moslems and Christians. Its agenda was to work on four projects:

- 1) patient rights and informed consent;
- 2) genetic tests and diagnosis;
- 3) assisted reproductive technologies and research on embryos; and
- 4) clinical ethics and ethical committees.



The most important problem in the Middle East, and especially Lebanon, is the lack of knowledge about biotech issues. We don't have any kind of national rules and regulations regarding biotechnologies.

On health care In Lebanon, biotechnology is individually based. We have two university hospitals, one university and one chronic care center that have the ability to do genetic manipulation. In Egypt, we have five university hospitals doing the same. There is no known researcher for embryonic cell and stem cell research.

On agriculture In Lebanon, there was one instance of genetically modified food which was not labelled. Also, there was an incident of growing genetically modified strawberries to become larger and sweeter. When this resulted in allergies for consumers, the strawberries were taken off the market.

We have some 2,500 mine fields with up to 500,000 landmines. Since Israel is refusing to give us maps of the land mines locations, a European country proposed to the Lebanese government to approve the use of genetically modified seed to be sprayed from helicopters. When the seeds grow, they will turn red due to a reaction with the mines, indicating their locations. This method is supposed to be a cost-effective way to remove mines.

In Egypt, there was a big scandal regarding the use of genetically modified fertilizers that were carcinogenic. This issue led to the removal of the Minister of Agriculture in 2004.

On religion The people of the Middle East are very religious and they trust their churches. They turn to their priests for guidance and assistance. However, the church cannot provide all the answers regarding biotechnology simply because of a lack of scientific knowledge.

In summary we have the following problems:

- 1) lack of scientific knowledge of biotechnology among the church clergy;
- 2) lack of public awareness regarding biotechnology;
- 3) lack of national rules and regulations;
- 4) lack of education programs in schools and universities; and
- 5) lack of awareness and knowledge among the medical and paramedical staff in health care organizations.

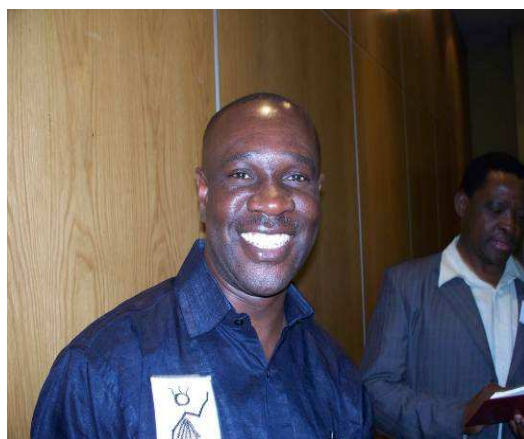
The Orthodox church supports any dialogue to improve human life; however we do not accept humans to act as Gods and create and manipulate other human beings. The Orthodox church has already reached decisions regarding a wide variety of biotechnology including a firm refusal to use embryonic cells in research.

We believe that praying is our most important weapon to fight the evil forces of this world. May the Grace of God be with you all, Amen.

Africa/Caribbean/Pacific

Africa

- List serves for information sharing are needed.
- Faith-based organisations should be more involved and speak with a unified voice.
- Supplement Safe Age labelling campaign, be part of the database, calling for legislation, participate in public hearings.
- South Africa is ahead of other African countries: the Global North is using South Africa as an entry point.
- The All Africa Council of Churches must be more engaged in raising awareness.



Caribbean

- Need to advise scientists about our approach.
- Universities look to theology for answers and a contribution. The UNDP insisted that the university participate in a project to develop a social engineering agenda, for example.
- Science must exist to serve community.
- Effects of HIV and AIDS is important. Could drug prices come down?
- We are challenged by current priorities (e.g., climate change) and continue to operate under a neo-liberal economic model. There are bottlenecks for developing economics, ongoing negotiation with the EU on ACP. More job losses in sugar industry
- Where to focus?

Pacific

- A liquid continent of coral atolls is severely affected by rising sea levels.

- These volcanic islands will become failed states.
- Many are struggling economically – the sugar industry has collapsed, and farmers have been resettled. Many are now importing canola and soy bean oil; people are buying tinned fish rather than fresh fish. Farmers have to explore new crops.
- Currently there is very little church engagement in biotech or the convergence between the church, science and the government.
- Economic globalisation analysis provides insights into the current situation in the Pacific.

It is all about the dignity of life.

Panel on Ecclesial Perspectives: Biotech Issues Facing the Church and the Ecumenical Movement moderated by Anne Mitchell

For a copy of their presentations, please contact Mani Varghese for "Biotechnology – Indian Perspectives" (manivarg@rediffmail.com); Garth Minott for "Bioethics and Biotechnologies: A Caribbean Christian Perspective/Making the Human Project More Humanitarian" (gminott@gmail.com); Celia Dean-Drummond for "Ecclesiastical Perspectives: Biotechnology Issues Facing the Church" (c.dean-drummond@chester.ac.uk); Heinrich Bedford-Strohm for "Biotechnology and Public Theology" (Heinrich.Bedford-Strohm@uni-bamberg.de).



Panel Notes from the Moderator, Anne Mitchell

Biotech Issues Facing the Church

- Undermining human life – slavery – colonialism.
- Forced migration, resulting in marginalization.
- Continuing 'development' struggle – advancing the cause of a few at the expense of the many.



- Need to add wisdom to knowledge to help us discern right actions.
- When we treat life as a disposable commodity, we are going down a slippery slope.
- Anglican Church of the Caribbean: Do good and no harm; remember the most vulnerable; means do not always justify the end; always think and act for the next generation.
- Be the voice of the voiceless.
- Roman Catholic perspective: Ambiguous nature of the technology; nature is a gift offered by the Creator; justice and solidarity imply an equitable economic relationship; to the scientist – work towards solutions to the problems of food supply and poverty; increased

resistance to all forms of intervention re human embryos; genetics – destructive pathology of reason; shift in views on agricultural biotech – must be at the service of solidarity and the common good; not all that is technically feasible if morally right.

- South African Bishops: invasion of the global commons; wisdom is linked to humility; intellectual wisdom; faith, hope and love; practical wisdom – prudence, community discernment, judgment and action.
- How can the churches speak to the public – language is important.
- Human life has become a commodity.
- Human beings are created relational.
- Human dignity required justice.
- All efforts to improve human beings are questionable.
- All efforts to clone human beings have to be rejected.
- Churches must be vivid agents of civil society.
- Churches need to be united theologically with sufficient competence in the facts.
- Need a public theology – language is important; need an internal debate and ongoing dialogue; and input into the public debate.
- Need to work with citizens campaigns.
- Churches in the North could confront companies re their actions in the South.



- Churches could be involved in direct political interventions.

Concurrent Session

Moral, Ethical, Theological Issues & Biotechnology - Workshop

Facilitators:

Linda Nicholls, Canada

Andrew Warmback, South Africa

Presentation I – Linda Nicholls

A brief presentation of the “Beginning Guidelines for Biotechnology” from the Canadian Council of Churches.

Presentation II - Andrew Warmback

- South African Context - large faith community in which the moral authority of the church continues to have strong effect.
- Church has historically had a prophetic voice in society.
- Biotechnology touches the community through GMOs, biofuels
- Theology has to be contextual – noted Kairos Document (1980s) and Oikos – Journey document
- Biotechnology brings a significant challenge to theology requiring a reformulation of Christian doctrine – including images of God.
- Towards the formulation of theological & ethical guidelines:
 - i) value of human beings – noting South African experience of discrimination, poverty and the place of women.
 - ii) value of all – participation and subsidiarity; “An injury to one is an injury to all.”
 - iii) value of the whole – noting impact of HIV/AIDS; land; economic ideology.



Noted: Moral, ethical categories in Heinrich Bedford-Strohm’s material for the Toronto pre-conference – Appendix 6 page 23.

Discussion

1. Transhumanism - impact of theological language used by transhumanists – Templeton foundation has given funds for transhumanist projects; a theological response from church is needed
 - a. It was noted that there has been some dialogue with critique and response.
2. Patenting – nature of human life – building blocks of genes now patented will lead to ‘ownership’ of life and new life forms; needs theological response.
 - b. The responses of some theologians were noted, including Donald Bruce/Ted Peter.
3. Contextual theology providing frame.
4. The word ‘stewardship’ is not appropriate. we are part of creation (R.J. Barry); stewardship is an ‘invention’ through interpretation of Genesis 1; need new creation theologies.
5. Who is part of dialogues? Have we restricted theological discussion to ‘experts’? Can we draw on creation stories from other traditions? Other sources for theology possible? Who/what dominates the discourse?

6. 'Consumer' or 'citizen' language; the issue is moral agency. Who is at the table? Issues discerned by those controlling the discourse; choice of terms is determined by context.
7. Models of dialogue to build equitable forms of input; Church needs holistic view to be able to hear from all and not be trapped into 'experts.'
8. Communal decision making – levels to be determined contextually.
9. Ambiguity of doing harm to one that offers good to all.
10. Adequate anthropology? Imago Dei – needs exploration.
11. How to have conversation in religiously plural context?
12. Not an EASY task because of multiple contexts/theologies; need overall guidelines; What am I seeing? How do I judge?
13. Power of evil is a reality – in persons and systems.
14. What happens when Pandora's Box has been opened?
15. Optimistic sense of church expressed here – ignores the 'little histories' of people missing – biotech is offering hope to people.



SUMMARY

Core ethical – theological areas reflected in discussion:

- a) relationship to creation, nature of stewardship/anthropology.
- b) Subsidiarity – theology from the 'bottom up,' not just clergy or theologians.
- c) Models of dialogue – Who participates? Community decision making.
- d) Power of evil – Church is part of the problem and the solution – needs reflection and clarification.

Concurrent Session on Human Rights Conventions Human Rights and Possibilities for Church Action - Workshop

Leslie Lowe opened the session by briefly identifying the core human rights that are impacted by biotechnology:

- the right to life;
- the right to food;
- the right to water;
- the right to a livelihood; and
- the right to health.

She then recalled how churches responded to the grave human rights abuses of the apartheid era in South Africa. In solidarity with the people and churches in South Africa, churches in the United States used their financial power (and they have a lot!) to pressure US corporations to either become agents for justice and equality or to stop doing business in South Africa. The sanction the churches imposed on companies that did not do this was "divestiture" – the churches sold their shares in the company and urged their congregants and others to do likewise. This movement, which spread to college campuses and public pension funds, became a peaceful force that Nelson Mandela credited with hastening the end of apartheid.



The divestiture movement sprang from "the people in the pews" not the church hierarchy. We now have an opportunity to mobilize, as people of faith, to get our churches to use all of their assets (financial and spiritual) to influence the biotech companies.

The results of the workshop included the following notes from poster sheets:

Information

- Statement of the Issues (also through worship, make them understandable to people).
- Ethical standards for investment (benchmarks, monitoring, reporting).
- Which church do bio-biz leaders attend?
- Create new models for agriculture (community supported agriculture, seed networks).

Dissemination

- Theological rationale for engagement (accessible language, grassroots perspective).
- Media message.
- UNESCO Convention on Bio-ethics and Human Rights (use it!).
- Share new models (e.g., HIV/AIDS struggle) for information and engagement, packages for distribution.

Lobbying

- Legal frameworks.
- Counter bio-biz (inform politicians).

Networking

- Pentecostal and other churches that are not now allies (Christians should not pain one another).
- Use of the internet.
- International – national – local.
- Community exchanges.
- Cultural linkages (Africa/America/Asia, preserve local knowledge).

Solidarity

- Inherent dignity of all persons and what we do at home and abroad.
- Race to the bottom (global standards).
- Resources (legal actions/strategies, independent research, support social organizations in other countries).

Javiera Rulli and Alvaro Salgado Ramirez added important information to this workshop on human rights concerns.

Church strategies with a grassroots approach:

1. Inform.
2. Dissemination, spreading of information.
3. Incidence, lobby on corporations, governments, international institutions
4. Networking North/South; North/North, help the networking in the South/South.
5. Solidarity building, correlation of realities.

Suggested actions to be developed

In the North:

1. Increase impact on public opinion about effects of biotech. Present the GMO issue in a human rights violation frame; shift from the consumer perspective to a civil rights perspective.

2. Report incidents of corporations and governments re standards; dialogue with corporations and governments, but not in the name of the South – let the people of the South speak for themselves.
3. Public consultations, public hearings.

Ways the North can support the South:

1. Campaigns to promote communication, networking and cooperation campesino/ campesino; campesino/farmer, campesino, farmers/consumers.
2. Lobby campaigns on governments, empower the mechanisms of democratic participation, and monitor of public policies.
3. Coordination of North/South campaigns using basic common frames, common goals. Not forced coordination, respect the different positions of the churches.
4. Promote seed saving and cultural identity from a grassroots approach.

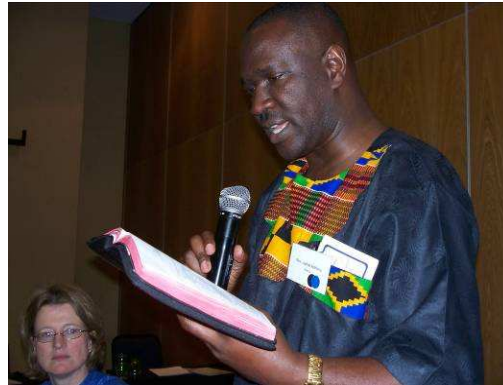
From South to North:

1. Campesino tour in the North to present testimonies in the local churches.
2. Provide information of corporative actions in the South.
3. Provide tools for another agriculture model with sustainability and local development.

Wednesday Morning Worship led by James Bhagwan, Cynthia Stephen, Japhet Ndhlovu and Linda Nicholls

Psalm 11, Joel 1 & 2
Bolo jai, milkar jai
Bolo jai, Yesu ki jai
Bolo jai jai jai

Kroos par apna khoon baha
Mujh paapi ko de shifa
Man mere tu bolo sada
Man mere tu bolo sada



Large Group Plenary on Resourcing the Trajectory of Work facilitated by Martin Robra and Eileen Lindner

During the previous evening, the participants were invited to name topics they would like to work on together and met to explore the outlines of those topics. During this morning plenary, they reported back some of they had discussed the previous evening.



what

The following groups reported:

- 1) Marcel Welty reporting on the work of the education group.
- 2) Jim Rusthoven reported on the work of the stem cell/theology group.
- 3) Leslie Lowe reported on the work of the GMO group.
- 4) Lenka Bula Pulang reported on the work of the theology group.
- 5) Nicci Van Noordwyk reported on the work of the political group.

Martin Robra invited the organizations represented in the group to respond to what they had heard and received reactions from the following organizations:



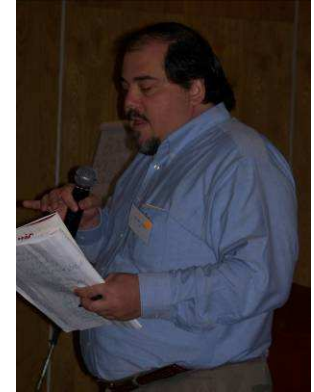
- 1) Canadian Council of Churches - Anne Mitchell
- 2) National Council of Churches of Christ (USA) - Eileen Lindner
- 3) World Council of Churches - Martin Robra
- 4) South Africa Council of Churches - Eddy Makue
- 5) Caribbean Conference of Churches - Garth Minott
- 6) All Africa Conference of Churches - Japhet Ndhlovu
- 7) Conference of European Churches - Richard Fischer
- 8) Pacific Conference of Churches - James Bhagwan
- 9) Middle East - Sally Ibrahim
- 10) Consejo Latino America des Iglesias (CLAI) –Carlos Duarte

Small Groups Identifying Common Issues: Looking Ahead to Next Steps facilitated by Marcel Welty

Having received some initial feedback on the explorations of the groups in the first morning session, Marcel invited them to go back to work to deepen, concretize and begin to frame their topic and insights about common work.

They were asked to name what they wanted to work on, for how long, their objective, rationale and who would be involved

For a record of the ideas generated prepared by each of those working groups, please see the appendix to this report.



Plenary on the Churches and the Ecumenical Movement Finding its Voice, Fulfilling the Role We Envision + Action Planning facilitated by Peter Noteboom



The participants were invited to remember and picture themselves and the work of genetics and new biotechnologies in 2006, 2008 and 2010, considering personal relationships, the action reflection groups, the regional groups and the global consultation/platform. Each participant recorded their most significant events on a historical timeline stretching from 2006 through to 2010. Once the timeline was complete, the participants together summarized and verified their understanding of the trends that were emerging.

Plenary on the Ecumenical Communiqué on Emerging Biotechnologies led by Co-chairs: Stephen Allen and Olivia Masih White



Eileen Lindner and Martin Robra took the lead in reviewing line by line what had become an *aide memoire*. The participants were invited to suggest changes and raise objections to any line or paragraph in the draft text. Through a patient process of hearing concerns and documenting suggestions, the *aide memoire* was approved.

With gratitude for the work that had been accomplished and the relationships that had been created, Stephen and Olivia thanked the participants and organizers for their work, gave thanks to God for insight, safe travel and direction, and adjourned the consultation.

For a copy of the *aide memoire*, see Appendix 3 in this document, or visit <http://www.oikoumene.org/en/programmes/justice-diakonia-and-responsibility-for-creation/faith-science-and-technology.html>.

Recorder

Peter Noteboom, Associate Secretary, Justice and Peace, Canadian Council of Churches



Appendix 1: Reference Groups

Reference groups were established as an opportunity to get acquainted, build community and share concerns. These served as helpful spaces to have informal conversations and build relationships. They were not established to accomplish a specific task, so consequently there is no formal record of those conversations beyond handwritten notes. Should anyone want help remembering any aspect of those conversations, please contact the group facilitator.

Group 1 (silver) facilitated by Peter Noteboom

Group 2 (blue) facilitated by Stephen Allen

Group 3 (purple) facilitated by Olivia Masih White

Group 4 (orange) facilitated by Marcel Welty

Group 5 (silver and blue) facilitated by Eileen Lindner

Group 6 (silver and purple) facilitated by Martin Robra

Appendix 2: The Working Groups

GMOs – Agriculture

1. What to do
 - a) Support biofuel moratorium (not to export/import crops).
 - b) Support mandatory labelling of GM food (vegetables, feed, meat).
 - c) Inform, spread and support information about human rights violations in the South (email, actions, direct support).
 - d) Encourage local churches to adopt, implement the communiqué.
 - e) Support exchanges between North – South; community connection.
2. Time and duration, when?
 - a) In process
 - b) In process
 - c) Existing networks, in process
 - d) As soon as possible!
 - e) ICCR forum 2008, collaboration on conference; 2009 delegations North – South. (Mex-PY exchange)
3. Objectives
 - a) Not more export/import commodities (biofuels).
 - b) Labelling enforced.
 - c) Stop violence of gm agriculture.
 - d) Support communiqué to unite churches for these purposes.
 - e) Exchanges happen and strengthen the base of support.
4. Who
 - a) ICCR, Baseis a py org, CENAMI, Pastoral de La Tierra.
 - b) Biotech Reference Group, Canadian Council of Churches, Consejo Latino America des Iglesias (CLAI).
 - c) From the South – PY Baseis (Iniciativa Paraguay de Integracion de los Pueblos).
5. Rationale

To protect human dignity and be responsible stewards of creation.
6. Participants

Leslie, Carlos, Richard, Alvaro, Javiera, Maria and Mani.

Convergent Technology

Participants

Gregor, Pradip, Stephen

1. WACC Congress “Communication and Peace,” October 2008 in Cape Town (Pradip)
 - a) Possible space/workshop.
 - b) “Convergent technologies and the culture of peace.”

- c) Objective: Raise awareness among ecumenical communicators.
- 2. Offer 10 articles on Marcel's wiki – on different aspects of convergence (Gregor)
Objective: sharing information, collaboration, learning, collective intelligence;
Time Frame: 10 articles by December 2008;
Gregor will poll list serve on thematic priorities – January 30, 2008.
- 3. Yahoo Listserv Online! (Gregor)
Share resources on nanotechnology with the CCC Biotechnology Reference Group –
January 2008
- 4. Lift up issue of ableism and emerging technologies in CCC (Stephen)
- 5. Raise awareness on theology and transhumanism (CCC)

Theology

Objectives

- a) Exchange of existing (also WCC) materials within group on Christian faith and the Earth (2012 SA).
- b) Resource to churches: Critical/appreciative review of documents on biotechnology that are being prepared.
- c) Contribution to next (2009) MIT conference (e.g., theological evaluation, panel)

Rationale

Relevant theology is needed for ongoing work of churches, including the WCC, noting the value of ecumenical inputs.

Participants

Puleng, James, Japhet, Andrew, Celia, Garth, Linda, Desmond, Heinrich

Political Group

Time/Duration

Within 6 months

Objectives

- a) Increase outreach and dissemination to our denomination/faith group/organization/network/regional council of churches in order to help the political work of everybody.
- b) Commitment to see how we can continue the networking on political strategies.

Who

All of us

Rationale:

Doable, enabling; and needs to be done!

Participants

Nicci, Richard, Priscilla, Jamie, Cynthia, Anne, Eddie

Stem Cell

1. What is the embryo?
 - a) Biologically vs. theologically
 - b) Time: now ----- ?
2. Research cloning (therapeutic)
Exploitation of sources of human eggs
3. Clinical trials of stem cell products
 - a) Methodology (use and abuse)
 - b) Public misperception
4. Communication (Johannesburg group, Councils/regional, WCC)
 - a) Sharing "new" research information
 - b) Reflecting on impact on theological concept
5. Participants
Jim, Jaydee, Dan, Olivia, Vassilios

E d u c a t i o n

Do	Methods, resources and strategies bank (upload on website or list serve)
Time	With list serve
Who	All
Objective	Share experiences
Rationale	We don't reinvent the wheel

Do	Directory of willing speakers
Time	Share itineraries on list serve
Who	Experts/all
Objective	Resource the community on specific issues
Rationale	Economise, elevate our competence in local communities

Do	Your strategy – partner with other organizations
Time	2008
Who	Willing people!
Objective	Reach youth
Rationale	Youth consumer culture need alternatives; future of the movement

Do	Internet, Wiki and Web
Time	Cross-linking websites (get web address @ WCC; move content to web site)
Who	Two weeks
Objective	WCC – web page; all – cross linking and updating our web sites
Rationale	Cost effective

Do	Sabbath liturgy, e.g., World Food Day (link to agricultural missions)
Time	Food Day 16 October
Who	
Objective	Raise awareness at congregational and wider level
Rationale	Want liturgical context as educational tool for why we care

Participants

Root, Marcel, Karen, Sally, Tabitha, Kamaara

Appendix 3

Aide Memoire from the Global Consultation on Genetics and New Biotechnologies and the Ministry of the Church December 2-5, 2007 in Johannesburg, South Africa

Make a joyful noise to the Lord all the earth.

Know that the Lord is God.

It is God who has made us and we are God's.

(Psalm 100: 1 and 3)

Some 45 participants from all regions of the world sang and danced to a Kenyan song whose refrain proclaimed: "Let us sing to the Lord". Only a few kilometres from Soweto and the Apartheid museum, they wanted to celebrate the beauty and wonder of creation, even while confronting the urgent challenges of new technologies. In the opening session, they heard the stark judgment: "Biotechnology in many of its current applications, like the apartheid system before it, thrives on and leads to the indignity of persons and communities."

This consultation was hosted by the South African Council of Churches (SACC) in recognition of South Africa's role as a science and technology centre on the African continent. The initiative for the consultation grew simultaneously from the Canadian Council of Churches and the National Council of the Churches of Christ USA together with the World Council of Churches and the SACC. Envisioned as an opportunity for networking among concerned people, members of advocacy groups, theologians and scientists, representatives of churches and ecumenical partners, the consultation boldly faced the complexity of the issues born of scientific advance and commercial interests. The outcome of the consultation was diversity expressed as solidarity.

Convictions and perspectives

Genetic advances and new biotechnologies require the churches to reaffirm the dignity of human beings and the integrity of the web of life. The creativity of science needs to serve the common good – a shared theme in all the theological contributions to the consultation. Where dignity is violated because human beings are reduced to mere commodities, churches are compelled to speak and act. Where the web of life is threatened or disrupted by human intervention, churches will advocate for the restoration of just relationships between human beings and other life. Justice for the poor and the suffering creation is the compelling call to Biblical witness.

The teachings of the churches need to be further developed in response to the challenges of biotechnology and the impact it has on peoples' lives. Underlying assumptions about the value and trajectory of life require deeper theological reflection. This common task depends much on contextual realities and the benefits of shared discernment. Wishing to move beyond a reactive mode, those closer to the centers of research and technological advance see the need for dialogue with scientists and enable science to serve the common humanity. Those who are closer to peasant community and other marginalized groups underline their experience that societies can be devastated by the intrusion of genetically modified seeds and bio-piracy.

They even conclude: "Biotechnology now serves primarily to enhance corporate profit and thereby reduces human beings to mere consumers".

The context of unjust international relationships often blocks the capacity of people to find common ground. The consultation discovered that one of the most valuable resources to address this challenge can be found through diverse and wide-ranging perspectives. Commonly, people from North and South find themselves in conflict because of the different realities they face. The solutions they look for are often seen as mutually exclusive because of the inequitable distribution of economic and political power. Networking and solidarity under these conditions are not just a matter between North and South. Full solidarity is as much a matter between South and South and North and North as it is between South and North. Hence the consultation emphasized networking and mutual accountability and co-operation between the different ecumenical partners. The journey ahead will require a strong commitment to mutual accountability and candid encounter by all partners involved.

Valuing peoples' and cultures

Indigenous peoples have been guardians of biodiversity and cultivated many of the plants used for agriculture. Their knowledge is essential to future life and survival of humankind. This is not recognized. Instead, Mexico, though the heirs to 12,000 years of a corn (maize) culture, face the risk of the demise of their culture. Long have they known "The maize made people and people made the maize." Contamination of their fields through the illegal import and use of genetically modified corn and the dumping of surplus production is seriously undermining the lives and livelihoods of people and, more devastating still, their identity, spirituality and culture. The commodified crop has nothing in common with the sacred plant, the gift of creator God.

These themes were echoed again and again from the canola fields of Canada, to the sugar cane fields in the Caribbean, Africa and the Pacific, to those who struggle with the agro-export model of genetically modified soy in Latin America, and the 120,000 Bt cotton farmers who committed suicide in India because of crop failure. Violation of the human rights of farmers, often hand in hand with violence against women and children, and other groups, was reported from many countries. Driven by the global market economy and unjust political systems, biotechnology promised increased production. But in the context of injustice and violence, it results in increased dependency and threats to biodiversity. The new emphasis on agro-fuels has the potential to cause additional monocultures, expulsion of peasants, land speculation, pollution, and disease while raising food prices.

Urban and rural citizens have the right to access healthy food in keeping with their culture and not to be reduced to mere consumers. This must always be at the heart of efforts to secure the labelling of genetically modified products and the enforcement of regulatory frameworks in order to mobilize the purchasing power of consumers. Yet, even the exercise of consumer choice in favour of life must be seen as a privilege which operates within a framework that is hostile to vulnerable communities. Labelling of genetically modified products is only the second best choice in the absence of more fundamental justice.

Beyond the human species

Poor communities are more at risk during drug development – for example in clinical trials for HIV, reproductive technologies and diabetic research – and lack access to expensive pharmaceutical products under patent regimes and other legal, political and social mechanisms which prevent access to drugs. Perhaps the greatest arrogance is any claim to "perfect" all life and in particular the human species. This irreverence denies the sacred relationship between

creator and creatures. It ignores the vulnerability and finiteness of life. It opens the door for new divisions in the human community that go far beyond the past and present experiences of racism, sexism, ableism and other deeply entrenched denials of human dignity. The church and the public must face the realities of the commodification of human life in pre-natal diagnostics, some forms of research on cloning and stem cell research, and enhancement techniques. Yet, even these are trumped by the dreams of so called trans-humanists. Their vision of constant perfection of human beings beyond the boundaries of the species entails a nightmare not only for people with disabilities, but ultimately for all people.

The prophetic voice of the ecumenical community

There is a great need for global ecumenical literacy on the many dimensions of the new convergent technologies that have been enabled by the digitalization of information in different spheres of life. A central commitment of the consultation was the restoration of the churches' prophetic voices and public witness in the growing debate regarding the ethical use of genetics and biotechnologies. It was affirmed that theological reflection needs to be contextual, engaging with those most directly affected in efforts at a transformation of the situation. The task ahead requires arriving at a common voice by the ecumenical family in inter-contextual encounters. This will require drawing deeply on the wisdom of different Christian traditions and the wisdom traditions in other faith communities. The kind of networking modeled here, and to be pursued in the future, can enable the churches and ecumenical partners to find their voice and speak their truth within local settings, in national and global advocacy and in a religiously pluralistic world.

The following steps agreed upon by the participants are first steps in fulfillment of these commitments. They are to be carried forward by sub-groups of the consultation:

- Education Envisioned here is the development of a compendium of educational resources, which can be circulated to colleagues electronically; the development and maintenance of an electronic conversation on an ongoing basis; the development of an ongoing network to be expanded as possible.
- Theological discourse The group explored the themes of anthropology, an inter-contextual approach to doing theology, ecclesiological implications. They desire to explore the unequal distribution of power in the ways they affect the discourse through the sharing of written materials and an ongoing consultative process (South-South, North-North, South-North). They encourage learned societies to work on issues related to genetics and biotechnology in the widest possible sense, including environmental issues. Public theology is a promising new avenue to inform the churches public witness.
- The ethics of embryonic stem cell research The group pledged to follow developments in genetic research and its human applications, carefully reflecting on their theological implications and effects.
- Genetically modified organisms in agriculture Support the proposal of a commercial moratorium on the export and import of agro-fuels; networking among participants and other partners to put a greater emphasis on the alternative framework of sustainable/life-giving agriculture and the need to modify our energy consumption patterns as the main way to address climate change and the water scarcity crisis; strict standards for the planting and transborder trade of GMO products; protect the human rights of the farmers who are affected by monoculture GMO crops and subjected to economic violence resulting in migration and hunger.

- Converging technologies Exchange of materials on nano-, bio-, information-, cognitive technologies and synthetic biology and share information with the group as a whole.
- Advocacy – local and global Intentional efforts to improve the impact of multi-faceted political intervention through greater cross-sectoral and cross-regional sharing of information, models and practices; improve the churches capacity for public witness through co-operation with civil society actors and ethical and theological reflection provided by other groups in the network.

Participants of the consultation evoked the theme of the 2006 Assembly of the World Council of Churches in praying together: “Heal us. God in your grace, transform the world.”