



Global Biotechnology Forum

Bioindustries in Development

Concepción, Chile

March 2 – 5, 2004

TENTATIVE PROGRAMME

2 March 2004

Welcoming addresses	10:00 – 11:00
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C. Magariños, Director General – UNIDO
K. Annan, Secretary-General, UN
President R. Lagos – Chile

Opening Plenary	11:00 – 16:00
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Biotechnology and the developing world	11:00 – 12:30
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D. Johnson, Director-General, OECD (France)
G. Conway, President, Rockefeller Foundation (USA)

Lunch	12:30 – 14:30
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Opening Plenary cont'	14:30 – 16:00
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H. Herren, Director General, ICIPE (Kenya), World Food Prize Laureate 1995
A. Falaschi, Director, ICGEB (Italy)

Regional Consultations: Emerging issues	16:00 – 16:30
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UNIDO: a synthesis of the regional technical consultations: Africa, LA&C, Asia and Eastern Europe

Coffee/Tea Break	16:30 – 17:00
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MINISTERIAL/REGIONAL DISCUSSION PANEL

(Ministers discussing regional priorities)

17:00 – 18:30

Biotechnology is rapidly changing the way technology is developed and knowledge is moved into the productive sectors. It is not only that the boundaries between the basic and applied science are becoming increasingly blurred, the links between science and education and the way the R&D activities are organized are also rapidly changing and new ways of interfacing science and production and the public and private sectors emerging. The preparatory process has identified all these aspects as areas of great potential to promote biotechnology development, but at the same time also recognized the need to update existing policies and instruments in the area of science and technology so to facilitate the needed institutional innovation to speed up the acquisitions and use of new knowledge. In this context, the proposed Ministerial Panel is seen as a unique opportunity to bring the views of the highest policy making levels in this field in the Developing World to share their particular experiences as to how these issues are been dealt and explore possible ways in which cooperation could expand possibilities and facilitate the needed changes.

Welcoming Cocktail

18:30 – 21:00

3 March 2004

Plenary Session 1 9:00 – 19:30
Bioindustry opportunities for developing countries

PLENARY SESSION 9:00 – 12:30

Introduction by Chairperson 9:00 – 9:15

Access of modern ag-biotech to small-scale producers and subsistence farmers 9:15 - 9:45

Plant biotechnology, which is one of many approaches in addressing the complex problems of hunger, poverty and food insecurity, may be an appropriate technology within reach of rural and disadvantaged farmers. However, access to these is impeded by their proprietary nature, lack of adequate regulatory systems, widespread market failure, unfavourable macro-economic environments and a host of other technical, social and institutional weaknesses. How large are these barriers? What options are there for addressing these problems? Is there adequate knowledge of these technologies among peasant farmers? How can they make informed choices?

Biodiversity and biotechnology: sustainable industrial utilization of bioresources 9:45 – 10:15

Genetic resources are the fuel of biotechnology. They constitute a crucial element in the biotechnology research cycle. Can developing countries benefit from their biodiversity endowment? Or will bioinformatics and combinatorial chemistry render this endowment worthless? Which are the factors that determine investment of bioprospecting firms in the developing world? How can equitable partnerships be achieved?

Coffee/Tea Break 10:15 – 11:00

Plants as biofactories 11:00 – 11:30

Extraordinary advances in bioinformatics (genomics, proteomics, metabolomics) make it now possible to use crop plants as renewable energy resources and to produce high-added-value chemicals. These advances hold the promise of catalysing the shift of chemical industry from fossil fuel to using plant crops as biofactories. At the same time, the same technology also presents opportunities to use temperate zone crops to produce industrial chemicals hitherto derived from genetic resources in the tropics and sub-tropics. What will be the social and economic impact on developing countries that depend on such exports?

Biotech and cleaner industrial production 11:30 – 12:00

Biotechnology offers unique opportunities for cleaner industrial production. Industrial applications of modern biotechnology have been to a large extent 'spin-offs' of medical biotechnology and are only now beginning to penetrate the energy, environment and manufacturing industries. Their adoption depends not only on the level of technological maturation but also on economic and regulatory considerations (costs of replacement of capital equipment, changing of manufacturing processes, etc.). Are industrial applications of biotechnology relevant for the developing world?

Panel Discussion

12:00 – 13:30

Biotechnology too often seems to be the property of the developed countries – until recently this may not have been surprising for most of the discoveries which led to the new technology were made in North America, Europe, Japan and Australia, and the first products were aimed at solving problems in these countries. As a result, the OECD countries have dominated the development and application of biotechnology over the last 25 years – they have defined the economic, commercial, legal and ethical frameworks for biotechnology. These frameworks were not designed to take account of the needs of those who live and work in the emerging and developing countries. Many problems in developing countries, which could have been addressed by biotechnology, have been more or less ignored. In practice, Third World science, industry and agriculture have been inhibited by regulations and customs made to suit the requirements and sensitivities of the developed economies. Now it is clear that this situation is no longer acceptable, due to two main reasons. Developing countries' problems pose huge humanitarian challenges for life scientists, and distinguished scientists from developing countries, who are making very significant contributions to international science, should be involved in setting the biotechnology agenda. A new dialogue is required in which the needs, the voices and the opinions of the emerging and developing countries be clearly identified, heard and heeded. This Panel discussion, organised by European Action on Global Life Sciences (EAGLES), a Task Group of the European Federation of Biotechnology, will provide a platform for leading scientists and humanists from developing countries to explore new relationships in biotechnology between North and South. Discussion topics will include:

1. Medical biotechnology: a global response to the global challenges
2. The biotechnology of biofuels
3. The biotechnology of water
4. Biotechnology in the agri-food chain

Lunch

13:30 – 15:00

PARALLEL SESSIONS

15:00 – 19:00

1. Legal and contractual aspects of bioprospecting
2. Functional foods and nutraceuticals: capitalising on market potential & biodiversity
3. Forestry
4. Capacity building to promote biotech
5. Biotechnology and Cleaner Industrial Production

NOTE: Possibility of other parallel workshops subject to sponsorship

4 March 2004

Plenary Session 2 9:00 – 19:00
Trade, regulation and social acceptance of biotechnology

PLENARY SESSION 9:00 – 12:30

Introduction by Chairperson 9:00 – 9:15

Industrial policies and public acceptance 9:15 – 9:45

Biotechnology is already bringing considerable productivity increases and qualitative improvements in agriculture and industry. It is also catalysing significant changes in the modes of the production of food, ownership of genetic resources and even in the size and number of farms. In this regard, its impact will extend beyond the benefits of its products. Possible adverse socio-economic effects may be the result of technological success. Yet, they will be less the outcome of the technology itself than the way the technology is being applied. How could such potential effects be abated? Can industry increase its social responsiveness?

Public dialogue on biotech 9:45 – 10:15

Public perception is a crucial factor in determining the biotechnology research agendas of both the public and private sectors. Public opposition towards biotechnology may have an adverse impact both on the innovation process (i.e. potentially beneficial products may never be developed) and on national regulation with concomitant effects on technology transfer and trade. Is there a need to continue the public debate on biotechnology as an inclusive multi-stakeholder programme? How can informed dialogue between interested parties be initiated and how the credibility of such debate be ensured and legitimised?

Coffee / Tea Break 10:15 – 11:00

IPR: technology transfer and investment implications 11:00 – 11:30

Views as to whether protection of intellectual property rights (IPR) promotes or hinders private investment and technology transfer differ widely. The concentration of intellectual property assets lies overwhelmingly in the northern hemisphere. IPR and patenting, in particular, have created high barriers to entry in biotechnology. In addition the introduction of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement into the framework of the multilateral trade regime will undoubtedly influence capital flows and technology development and transfer. How this will impact upon developing countries? What are the opportunity costs for patent enforcement? Should - and can - developing countries invest in patent enforcement infrastructure or use the resources to address more important developmental objectives?

Facilitating regulatory compliance 11:30 – 12:00

Regulatory oversight in biotechnology is widely recognized as a significant factor affecting the trajectory of technological innovation and timely market entry. The adoption of new technologies is subject to decisions of regulatory bodies that respond to a lesser or greater extent to public opinion demands. At the same time, a number of international conventions and agreements impinge on national biotechnology regulation. Their implementation is subject to "grey areas" of interpretation and will, therefore, impose significant resource requirements on most developing countries. Are there enabling mechanisms to facilitate trade and market access while at the same time ensuring compliance with national and international standards?

Regulation in Biotechnology: A Latin American Perspective

12:00 – 12:30

Panel Discussion

12:30 – 13:00

Lunch

13:00 – 15:00

PARALLEL SESSIONS

15:00 – 19:00

1. Mediation of Biotechnology Disputes

Sponsored by The Einstein Institute for Science, Health and the Courts (EINSHAC)

This workshop simulates and then engages participants in a mock mediation of three contentious biotechnology issues. Its objective is to illustrate by hands-on experience a low-cost, time-saving technique to anticipate, avoid and resolve biotechnology-related conflicts. Consideration will be given to contract, liability, and IP conflicts. The cases will be available on the Internet several weeks prior to the GBF.

2. Legislative measures and court cases affecting promotion of biotechnology

Sponsored by The Einstein Institute for Science, Health and the Courts (EINSHAC)

This workshop's purpose is to provide participants a common road-map through legislation and key court cases affecting biotechnology. It is a global survey. The operations and impact of international treaties will also be highlighted.

3. Biosafety: public, industry and trade implications

4. Biotechnology and the media

NOTE: Possibility of other parallel workshops subject to sponsorship

5 March 2004

Plenary Session 3

Technology Transfer: from promise to reality

Chair:

9:00 – 17:00

PLENARY SESSION

9:00 – 12:30

Introduction by the Chairperson

9:00 – 9:15

South-South cooperation: can developing countries get more from each other?

9:15 – 9:45

South-South regional and international collaboration are key ingredients for enhancing the rate of adoption of biotechnology and optimizing scarce human resources. Self-sufficiency and self-reliance, the twin hallmarks of a "stand alone" market-oriented economy are crucial and can be achieved only with the use of co-operative networking to share both experiences and resources. What form of educational and capacity-building schemes can be built to enable developing countries to increase their level of research in biotechnology? Can network clusters enhance their capacities to produce and commercialize biotech products? What mechanisms can allow for a greater degree of participation in developing national, regional and international biotech governance dealing with biosafety, conservation and trade of genetic diversity?

The role of multinational corporations in fostering public-private partnerships in the developing world

9:45 – 10:15

Government initiatives alone are insufficient to fight global poverty. Thus, improving the state of rural people in developing countries, particularly in the face of decreasing agricultural productivity and increasing populations, will require governments to work in full partnership with private sector firms that often hold the keys to new agricultural biotechnologies. Public institutions are anxious to create incentives to help the private sector become a full partner in the development process through the provision of management skills, technology and know-how, especially in research and innovation. How can public sector commitment to certain priorities be clearly signalled, so that companies will have greater confidence to invest in addressing those concerns? How can trust be built between private and public sectors? Should companies be involved in programs to improve education, train professionals, and construct and equip infrastructure? How are costs to be shared?

Coffee / Tea Break

10:15 – 11:00

Financing the bioindustry: needs and strategies of accessing new sources of funding

11:00 – 11:30

Existing financial mechanisms in developing countries are not designed to reflect the particular characteristics of biotechnology R&D and product development and commercialisation. There are specific needs both in terms of the particular nature of the interface between research laboratories and product development, as well as the complexities and length of the regulatory processes with which biotechnology products have to comply. The weakness of venture and risk capital markets and mechanisms is also a constraint for the development of the industry that needs to be addressed explicitly. Are there suitable incentives to facilitate access to new sources of funding? What is the role of private and multilateral financial institutions?

Alternative ways of funding priority research in the developing world

11:30 – 12:00

Innovation in biotechnology has been driven by commercial imperatives and the need of industry to increase competitiveness and market share. As a result products and services badly needed to improve welfare and to enhance food security in the developing world have remained largely outside the mainstream of biotechnology innovation. In many cases commercial markets are likely to remain small or fragmented and therefore of little interest for private sector innovation. In such cases, initiatives intended to facilitate the transfer of proprietary technology are not adequate by themselves and need to be supplemented with others that are targeted on addressing this deficit. Given that public funds are dwindling rapidly, are there innovative ways of funding priority research? Can proprietary technologies be made available to developing countries on preferential terms?

MINISTERIAL/REGIONAL DISCUSSION PANEL

(Ministers discussing regional priorities)

12:00 – 13:00

The preparatory consultation concluded that if biotechnology potential contribution to the LAC economies is to be realized its development policies need to be discussed in the context of the region's investment policies and possibilities and its emerging integration and trade environment. Being a new sector biotechnology has, from the investment point of view, a number of particular characteristics that demand new approaches and instruments to facilitate the flow of resources both for R&D, as well as for the creation of the new entrepreneurial infrastructure needed to move knowledge from the labs to the production sectors. At the same time, it is a highly regulated sector with many new regulations affecting the transboundary movement of its products and there is at the same time ample potential for the countries to exploit spill-over benefits from technological cooperation and the risk of new non-tariffs barriers to trade. In this context, the proposed Ministerial Panel is seen as an opportunity to bring the views of the highest level of policy decision making in the Developing World into the deliberations of the GF, so to be able to realistically evaluate policy alternatives and make sure that recommendations eventually emerging from the Forum discussion are made compatible with existing economic and financial policies and the relevant issues incorporated in on-going trade and regional economic integration negotiations.

Lunch

13:00 – 15:00

PARALLEL SESSION

15:00 – 17:00

1. Biotechnology Policy to Promote Environmental Health through Knowledge Networks

This Workshop's purpose is to illustrate the deployment of knowledge networks for quick resolution of biotechnology issues related to human health.

2. Public-private partnerships: reaching across the divide

3. Technology pools and transfer

4. Intra-regional knowledge networks

NOTE: Possibility of other parallel workshops subject to sponsorship

Coffee / Tea Break

17:00 – 17:30

Closing Plenary

17:30 – 18:30h

Thirty years of biotechnology: achievements and prospects

From transgenics to the post-genomic era: prospects for the developing world

Closing Address

18:30 – 19:00h

Minister of Foreign Affairs, Chile
Mr. A. Rwendeire, Managing Director, UNIDO