

ETC Group - Monitoring Power, Tracking Technology, Strengthening Diversity.

The Issues



ETC Group works in the areas that we summarize as [Erosion](#), [Technology](#) and [Concentration](#). A detailed description of each, as they relate to our work, is below.

EROSION

This category includes not only genetic erosion and the erosion of species, soils and the atmosphere, but also the erosion of knowledge and the global erosion of rights. We are losing biological resources and traditional knowledge relating to the management of ecosystems and biodiversity.

Biopiracy: Biopiracy refers to the appropriation of the knowledge and genetic resources of farming and indigenous communities by individuals or institutions who seek exclusive monopoly control (patents or intellectual property) over these resources and knowledge. ETC Group believes that intellectual property is predatory on the rights and knowledge of farming communities and indigenous peoples.

FAO: The United Nations Food and Agricultural Organization (FAO). The ETC Group relates primarily to the FAO Commission on Genetic Resources for Food and Agriculture, and the negotiations for a multilateral system of conservation and exchange of genetic resources for food and agriculture, known as the International Treaty on Plant Genetic Resources for Food and Agriculture. Aside from responsibility for the International Treaty, the FAO Commission oversees the FAO-CGIAR Trust Agreement and provides policy oversight for the germplasm collections included in that agreement. ETC Group is also involved with follow-through on the 1996 Food Summit and negotiations related to the Right to Food.

CGIAR: The Consultative Group on International Agricultural Research (CGIAR) is an informal network of 16 international agricultural research centres which manages approximately 600,000 agricultural seed samples. It is the most influential agricultural research body in the South, and thus affects food and agricultural development policies for resource-poor farmers worldwide. In 1994, most of the crop germplasm held in CGIAR gene banks was placed under the auspices of the FAO, to be held in trust for the world community. ETC Group is engaged in ongoing work related to the science, governance and patent policies of the CGIAR.

Biodiversity & Genetic Resources: Biological diversity refers to all living organisms, their genetic material and the ecosystems of which they are a part. It is usually described at three levels: genetic, species, and ecosystem diversity. Genetic diversity is the variation of genes between and within species. Genetic diversity within a species permits it to adapt to new pests and diseases, and to changes in environment, climate, and agricultural methods. Biological diversity is the cornerstone of sustainable agriculture and world food security. The UN Convention on Biological Diversity (often referred to as CBD or Biodiversity Convention) is a legally binding framework for conservation and sustainable use of biodiversity, and one of the principle fora for negotiations related to access, benefit sharing and the role of indigenous and local communities.

Cultural Diversity: It is virtually impossible to talk about the conservation and sustainable use of genes, species and ecosystems separate from human cultures. The loss of cultural diversity and traditional knowledge - of farm communities, languages, and indigenous cultures - is intricately linked to the loss of biological diversity. Indigenous peoples and farming communities are the creators, custodians and continuing innovators of biological knowledge and resources.

Human Rights / Farmers' Rights: Farmers' Rights, endorsed by FAO in 1989, recognizes that farmers and rural communities have contributed greatly- and continue to contribute- to the creation, conservation, exchange and enhancement of genetic resources, and that they should be recognized and strengthened in their work. The ETC Group believes that Farmers' Rights must be recognized at the international level, and that its definition should be expanded by the human rights community as part of the Right to Food. ETC Group is concerned about the erosion of Farmers' Rights and Human Rights, and about the impact of new technologies on democracy and dissent.

TECHNOLOGY

The ETC Group believes that any major new technology introduced into a society which is not, by its nature, a 'live'

society will exacerbate the gap between rich and poor.

Terminator & Traitor: The genetic modification of plants to produce sterile seeds (dubbed "Terminator" technology by RAFI - now ETC Group -- in 1998) has been widely condemned by civil society, scientific bodies and many governments as an immoral application of biotechnology. If commercialized, Terminator would prevent farmers from re-using seed from their harvest, forcing them to return to the commercial seed market. "Traitor" technology refers to the use of an external chemical inducer to turn "on or off" a plant's genetic traits - the same mechanism used to control seed sterility in Terminator plants. The development of chemically-dependent plants and genetic seed sterilization threatens farmers, food security and the environment. The ETC Group is campaigning with CSO partners world-wide to ban Terminator and Traitor technologies.

BANG (Bits Atoms Neurons and Genes)/ Converging Technology: The ability, through nanotechnology, to manipulate matter atom by atom is enabling a new fusion of powerful technologies as nanotech, biotech, information technology and neurotechnologies (brain technologies) converge into one common technology platform. ETC refers to this convergence as BANG since it allows flexible manipulation of the bits of information, the atoms of matter, the neurons of the brain and the genes that code for life. Examples of 'convergent' technologies include nanobiotechnology, synthetic biology, DNA computing and neuroengineering.

Biotechnology: A variety of techniques that involve the use and manipulation of living organisms to make commercial products. These techniques include cell culture, tissue culture, embryo transfer, and recombinant DNA technology (genetic engineering). ETC Group focuses on the social and economic impacts of new biotechnologies. ETC Group is not fundamentally opposed to genetic engineering, but we have profound concerns about the way it is being foisted upon the world. In the current social, economic and political context, genetic engineering is not safe, and involves unacceptable levels of risk to people and the environment. For ETC Group, the fundamental issue is control.

Biological Warfare: Biological warfare is defined as the deliberate use of microorganisms or toxins derived from living organisms to induce death or disease in humans, animals or plants. This topic includes military applications of biotechnology and its impact on democratic institutions.

Human Genomics: The ETC Group has been working on issues related to the collection and patenting of human genetic material since 1993. Commercial trade in human tissue is accelerating. Human genetic diversity is being collected world-wide in the absence of intergovernmental oversight, and without consistent regulations concerning the collection, exchange and use of human genetic diversity and the protection of human subjects. The ETC Group's research on human genomics includes an emphasis on human performance enhancement (HyPEs) therapies and drugs, and on those members of society (the poor, the disabled, indigenous peoples, women, workers) who are most vulnerable to exploitation by genomics technology.

Nanotechnology: Nanotechnology refers to the manipulation of matter on the scale of the nanometer (one billionth of a meter). Nanoscale science operates in the realm of single atoms and molecules. At present, commercial nanotechnology involves materials science (i.e. researchers have been able to make materials that are stronger and more durable by taking advantage of property changes that occur when substances are reduced to nanoscale dimensions). In the future, as nanoscale molecular self-assembly becomes a commercial reality, nanotech will move into conventional manufacturing. While nanotechnology offers opportunities for society, it also involves profound social and environmental risks, not only because it is an enabling technology to the biotech industry, but also because it involves atomic manipulation and will make possible the fusing of the biological world and the mechanical. There is a critical need to evaluate the social implications of all nanotechnologies; in the meantime, the ETC Group believes that a moratorium should be placed on research involving molecular self-assembly and self-replication.

Synthetic Biology: Synthetic biology brings together engineering and the life sciences in order to design and construct new biological parts, devices and systems that do not currently exist in the natural world or to tweak the designs of existing biological systems. Synthetic biologists, engaged in a kind of "extreme genetic engineering," hope to construct artificial living systems to perform specific tasks such as produce pharmaceutical compounds or energy.

Geoengineering: Intentional, large-scale manipulation of the environment by humans to bring about environmental change, particularly to counteract the undesired side effects of other human activities.

Other New Technologies: Any new technology monitored by ETC Group, aside from biotechnology and nanotechnology, can be viewed by following this link. This category will include, for example, informatics, neurosciences and robotics.

CONCENTRATION

Corporate Concentration: Concentration in corporate power is the defining feature of today's global economy. The life sciences industry is converging into new corporate structures that have profound implications for every aspect of commercial food, agriculture and health. In addition to our traditional focus on the "Gene Giants," (seeds, agrochemicals, pharmaceuticals, biotechnology, genomics, food & beverage processing and mega-food retailers) the ETC Group will monitor the control and ownership of emerging technologies.

Intellectual Property & Patents: The term "intellectual property" refers to a group of laws-such as patents, Plant Breeders' Rights, copyright, trademarks and trade secrets - that are intended to protect inventors and artists from losing control over their intellectual creations-their ideas. Intellectual property has become a powerful tool to enhance corporate monopoly and consolidate market power. Monopoly control over plants, animals and other life forms jeopardizes world food security, undermines conservation and use of biological diversity, and threatens to increase the economic insecurity of farming communities. The ETC Group opposes exclusive monopoly control over living organisms and biological processes. The World Trade Organization (WTO), WIPO and UPOV are among the intergovernmental bodies that administer multilateral agreements or Conventions on intellectual property.

"New Enclosures": Corporations are developing a variety of new mechanisms to secure monopoly control of biotechnology and other emerging technologies. These new mechanisms - what ETC Group refers to as "New Enclosures" - will supplement or even replace intellectual property as a means of strengthening corporate dominance over new technologies. The ETC Group believes it is urgent to examine how non-patent technologies, such as genetic trait control, satellite surveillance, and the re-direction of biosafety regulations could impose monopolies that replace intellectual property as the major means of technology control in the 21st century.

Public / Private Relations: A rapidly changing intellectual property environment and declining research budgets have marginalized the role of public sector agricultural research in both OECD countries and the South. We are witnessing a variety of new partnerships and alliances between the public and private sectors. The ETC Group is concerned about the neglect of the public good and the appropriation of public research for private profit.

Other