

# Biotechnology viewed from three dimensions

## Overcoming Illusions about Biotechnology

By Nicanor Perlas

Published by Third World Network, Penang, Malaysia, 1994  
119 pp.

JAKARTA (JP): The eighth day of creation began in the early 1970s when Stanley Choen of the Stanford University and Herbert Boyer of the University of California ripped away the veil that separated the species and created a new life form that did not exist in Nature.

The first recombinant DNA (deoxyribonucleic acid) molecules were generated. Humanity was stepping into the portals of a new Eden, the Biotechnological Civilization.

We now have a new technology at our disposal. One which allows us to begin intervening into the genetic blueprint of life, writes Nicanor Perlas in his book *Overcoming Illusions*

about Biotechnology. The book was initially a lengthy paper presented in an international conference from the first person viewpoint.

Perlas, president of the Center for Alternative Development Initiatives in the Philippines, divides this book into four main parts.

In the first part he describes biotechnology as being similar to a double-edged sword, that with any technological development, costs accompany benefits. However, the proponents of genetic engineering and other modern biotechnologies tried to link biotech with ancient family practices. They claim that genetic engineering is in essence no different from ancient breeding techniques that have benefited humanity for thousands of years. As a result, prominent seasoned activists and environmentalists were ensnared in the definitional trap. Therefore, as a technology, biotech should be viewed from three dimensions: ideological/moral, resources/environmental and social dimensions.

In the second and third parts of this book, Perlas examines the potential hazards of genetic engineering and biotechnology in agriculture. He limits himself

in agriculture because many of the upcoming applications of biotech will be in that field.

In these parts, he refers to the examples in the U.S. animal production system which will serve as a good example, and contain many lessons, for developing countries that seek to emulate what has been achieved in the U.S.

In preference to the use of recombinant DNA technologies, scientists hope to continue the historical process of breeding even more productive livestock and poultry. Ralph Brinster, a scientist at the University of Pennsylvania, managed to breed mice the size of rats by combining human growth hormone genes into the genome of mice. Dr. Brinster and other scientists hope to duplicate this procedure with livestock to increase the yields of animal production systems.

In support of farming, biotechnology is packaged in the name of the Green Revolution. Contrary to the expectation, which hopes to yield more crops, the experience proves that the Green Revolution is not as beneficial as expected.

At the peril of biotech, perhaps the most imminent impact of biotech on the social fabric of society is its potential capability of reducing all agriculture into an automated, controlled industrial process. The recent displacement of sugar agriculture with fructose produced

through biotech in the world market, is a bitter warning to all nations of the power of this new technology.

When food production starts taking place in factories instead of farms, massive unemployment will also result. Obviously it will employ only very few workers — a terrible situation for developing countries where more than 70 percent of the people reside and work in the countryside.

## Spiritual

In most of this 11-chapter book, Perlas provides direct quotations. He also briefly explores the historical roots of modern science and technology.

It started when the father of modern philosophy, Rene Descartes, formalized the banishment of mind from matter. All qualities which could not be quantified were excluded from scientific consideration. This laid the basis for a technological revolution that created the industrialized lifestyles and culture of the West and other countries which have adopted Western values.

We have seen how the scientific and technological revolution of the last 400 years has given us the vast panorama of physical and social forms that surround us today. They inform every facet of our existence. They have bestowed precious gifts to humanity. But they have also dehumanized us and wreaked havoc on nature.

The last part of the book describes controlling the revolution of biotechnology. In overcoming its illusions, Perlas does not walk alone. There are also legal activism and grass roots oppositions such as the Foundation on Economic Trends (FET) based in Washington, D.C. which tries to control the biotech revolution.

A new, integrative framework for assessing and dealing with the vast challenges of biotechnology is also offered: the Bio-Dynamic/French Intensive Method, a sustainable agriculture method of food production to regenerate worn-out and marginal soil. Unfortunately, this is just a drop in the ocean of the Green Revolution agriculture which continues to be intensively promoted.

In the coming days, spirituality will become the center of the second scientific revolution as to how quantum physics and other scientific developments are increasingly affirming their reality.

With an eye focused on the breakdown of nations and the unrelenting destruction of nature due to the new biotech, Perlas underlines that the phenomenon of "unintended side-effects of modern technologies" is the price that modern civilization must pay for its progress.

Global 500 Award, unveils the hidden mask of modern biotechnology step by step. He comprehensively construes the root and dimension of biotech, the destruction of nature and

community that it creates. He also reveals how to control it when we are about to enter its labyrinth.

Though this book does not supply a reference or further

reading, Perlas guarantees, as he writes in the preface, the authenticity of the citations and facts contained in the book.

— Wahyuni Rizkiana Kamah

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Tubun, Tanah Abang, West Jakarta:  
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a.m. to 3 p.m., Saturday 9 a.m. to  
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### Performances

• **Wayang Orang Bharata** presenting an episode of the Mahabharata epic *Parto Kromo* at Gedung Kesenian Jakarta, Jl. Gedung Kesenian No. 1, Central Jakarta, Dec. 7 at 8 p.m. Tickets: Rp 10,000 and Rp 15,000.

• **Flamenco Dance** from Spain by Flamenco Vivo at Gedung Kesenian Jakarta, Jl. Gedung Kesenian No.1, Central Jakarta, Dec. 8 at 8 p.m. Tickets: Rp 20,000 and Rp 25,000.

• **Piano recital** by German pianist Rolf Plagge, Erasmus Huis, Jl. Rasuna Said Kav. S-3, Kuningan, South Jakarta, today at 7:30 p.m.

• **Prambors Cafe, Club Fame**, Mondays & Tuesdays, Protonema, Thursdays, Cold Sweat, Wednesdays & Fridays, Back to 90s, Saturdays & Sundays, from 10 p.m. until late midnight.

### Exhibitions

• **Interior Accessories for Christmas** at ASRI Gallery, Jakarta Design Center, 5th floor lobby, Jl. Gatot Subroto Kav. 53, Slipi, Central Jakarta, 10 a.m. to 6 p.m. until Dec. 22.

• **The Antique, Mother of All Arts and Crafts**, 200 antique crafts and continuous demonstration of Balinese Wayang painting using natural bone, stone & vegetal paints, at Rumah Indonesia, Jl. T.B. Simatupang 42, Monday-Saturday 9 a.m. to 5 p.m.

• **Paintings by Indonesian, European, American and Russian artists** at Slavia Art Gallery, Jl. Kemang Raya 125, South Jakarta, 10 a.m. to 6 p.m. until Dec. 15.

### Films

• **Indonesian films: Indonesia Indah, Anak-anak Indonesia, Untaian Manikam, The First Emperor of China and Blue Planet.**

For information on screening times contact: Keong Emas, Taman Mini Indonesia, phone: 840 1036.

**OVERCOMING  
ILLUSIONS ABOUT**



**BIOTECHNOLOGY**

NICANOR PERLAS