

TAC Statement On Biotechnology

TAC has for long considered the role that biotechnology can play in improving the productivity of resources committed to agriculture. For example, after the Mid-Term Meeting in Berlin in 1988, TAC published a statement implying that it was the responsibility of each center to employ biotechnology to help solve practical problems. However, responding to the conventions of 1988, TAC expressed concern that to create a special CGIAR fund for biotechnology would highlight the techniques rather than the problems that needed to be solved to help developing countries. So, at that time, it was concluded that funding for practical applications of biotechnology should be by normal, center-oriented routes.

The consequences of the application of this policy are seen in today's commitments of CGIAR resources through the centers which, according to a recent survey, summed to something more than \$30 million in 1997, including overheads. The work spans a broad space, including commitment by some to the development of transgenic plants. While large in total, these sums are trivial compared with the expenditures of advanced institutions, whether private or public.

And what about today, what should the System be thinking about? Certainly there has been a sea of change in the circumstances as annual investments in the private sector have skyrocketed, and proprietary claims by both private and public sector agencies have multiplied. Also, opportunities are touted as unlimited. Certainly TAC's admonition of 1988 remains true in part, in that the centers must invest in normal ways to incorporate that part of biotechnology that is now conventional in effective germplasm improvement and other research pursued by the System. But what about the advanced and more costly applications that seem to offer such promise, to what extent is the counsel of 1988 still valid?

TAC sees a myriad of questions that will shape the answers to such questions. For just two examples, consider the following. While we see ample evidence of the importance of biotechnology in solving problems emerging from biotic and abiotic stresses--and the private sector has manifested great skill in this area--but what about the importance of solving problems that affect yield potential and what will be biotechnology's role in that pursuit? Most, perhaps all, centers are concerned with increasing the yield plateau--Gurdav Khusch at IRRI and Rajaram at CIMMYT are but two of the better known examples--and TAC is in full accord with the importance of this strategy. By extension, however, it is important to bring biotechnology into play as well. How might that work, what might it cost, and how is such work most effectively organized? If there could be a private/public sector CG consortium to work on yield potential, we would be moving to address the question of how are we to provide enough food for a population of 10 billion. From crops with current yield potential we won't reach this target. From the private sector point of view such work would be uncompetitive so open partnerships should be formed.

A second example, brought on by the burgeoning importance of intellectual property rights, is the urgent need for ascertaining that the path is clear, can be made clear, of intellectual property impediments before commitments are made to apply biotechnology in solving a problem important to attaining CGIAR goals. The answers to such questions will influence the direction of resources allocations and options in priority setting, arenas of special importance to TAC.

TAC expects to play a major role in bringing together those with experience in dealing with such questions. In pursuing the questions, identifying the important parameters, and estimating the critical values, TAC will rely on expertise drawn from broad landscapes and from wherever that expertise resides. Discussion will be oriented towards resolving one set of questions and opening up further questions, such that the System as continuing access to relevant information for current questions and to new information and new insights, hence can stay abreast of the emerging questions.

In TAC's view, the System must expand its investment biotechnology. The immediate questions are where, how much, and how structured? The deeper questions relate to staying abreast of moving targets, as new science will ensure that today's answers will not be tomorrow's answers. With the role of biotechnology expanding and with opportunities and limitations expanding as well, timely information will be in ever greater demand. TAC looks forward to working with others in providing it.