Fred Gault. Innovation Strategies for Global Economy: Development, Implementation, Measurement and Management. Edward Elgar Publishing Limited, 2010, International Development Research Centre, Canada.

Fred Gault has made an impressive effort to direct attention towards the importance of innovation to the growth of the economies. The discussion centres around the need for pursuing the kind of innovation strategies that are likely to succeed and the measurement of the degree of innovation in a country. The indicators of innovation used by the different surveys to measure the degree of innovation across countries have been discussed. The formulation of such indicators has been explained at length. The author also emphasises upon the need to bring the subject of innovation into research and development. He conducts thorough analysis of impediments in this regard.

The author makes some very useful suggestion aimed at encouraging innovation. He highlights the innovation strategies pursued successfully by the developed world including the OECD countries and the European Union. Next the author ventures into a discourse on the different components of an innovation strategy that would stand a reasonable chance of success. The discussion emphasises upon the need of coordination amongst different organisation as a key element of a successful innovation strategy. The author suggests that organisation structures conducive to engaging the different stakeholders involved innovation should be promoted.

In the final part of the book the author has discussed different avenues where innovation strategies could be employed to enhance the capacity of the systems. One such candidate, picked for innovation by the author is the policy formulation itself. The book concludes with an assessment of the role played by the key players in supporting innovation in the private sector as well as the public sector across the globe. (*Ajaz*)

Thomas L. Friedman. *Hot, Flat, and Crowded.* London: Penguin Books Ltd. 2009. 516 pages. UK £ 10.99.

Thomas Friedman thoroughly reviews the energy and pollution issues that the world is faced with in the 'Hot, Flat and Crowded'. He argues that now we must accept that the conventional energy resources like oil, gas and coal will never be cheap again. That the wasteful and polluting technologies have in many ways adversely affected the earth and therefore these technologies should not be tolerated any more.

Friedman contends that the global warming, the population bulge and the expanded middle class which is fond of consumerism, has turned our green globe into a "hot, flat, and crowded" place. The fact that global demand for energy has scaled new heights is dangerous not only because of greater emission of carbon dioxide but also due the harm being caused to biodiversity.

The author feels that the current efforts to tackle environmental issues are inadequate and more coordinated and systematic work is required on this front. He suggests that the United States being the world leading consumer of energy should take the lead in making the world cleaner. Adoption of clean energy should not only be taken as a challenge but also as a great opportunity to heal the earth, renew America and bring about a green revolution around the globe. Friedman believes that proposed green revolution would be the biggest one the world has ever seen and this will change the vista of the globe altogether. The new Clean Energy System—solar, wind and nuclear energy, would generate a positive impact of immense magnitude on the environment, contends the author.

The final chapter of the book, perhaps the most interesting one, is focused on the technologies that world will be using after that green revolution. The author believes that in a post green revolution era the world will be flooded with smaller power generating vehicles and its accessories and the power companies will buy energy only from cleaner and cheaper sources. Friedman says that this will result in an entirely new regime of price signals, taxes and incentives. The new regime will also help keep fossil fuels cheap and the renewables expensive and hence elusive. (*Haider Ali*).

John Perkins. *Hoodwinked*. Broadway Books. 2010. 256 pages. Hardcover. US\$ 23.99.

'Hoodwinked, tells why the world financial markets imploded and what we need to do to remake them. John Perkins, the author of the book, covers the current debate on the causes of global financial crisis. The author pin points the causes of the global financial meltdown and suggests various measures to avert the crises of the sort in future. He argues that the global financial meltdown that we are facing today is neither a fluke nor is it a short term phenomenon. In fact the crisis is the result of the policies that began to be adopted almost four decades ago, mostly by the multinational firms, including the financial firms. John Perkins argues that 'responsible capitalism' if adopted would prevent the recurrence of the kind of financial crisis that the world is struggling with today. He contends that through 'responsible capitalism' we can create a healthy economy which will encourage businesses to act, not only in the interests of their shareholders and corporate partners, but also in the interests of their employees, their customers, the environment, and society at large.

The author argues that the economic collapse that we are facing today is the result of self-seeking policies of the multinationals which control vast amount of land, capital and other resources across the world. These multinational have managed to cheat the countries around the globe out of trillions of dollars. The author's reference to the CEOs of the multinational as the 'Economic Hit Man' conveys how he feels about adverse role played by multinationals in economic and financial matters.

After discussing the views of the Keynesian and Monetarist schools of thought regarding the manner in which the economy should be run, the author states that the free market philosophy came to a head as the financial markets collapsed in the recent years. Next the author describes his personal experience as the CEO of a multinational—the Economic Hit Man. He states that while working for a multinational firm he was bought into the deception that massive loans invested into heavily capitalised infrastructure

projects, combined with the privatisation being pursued vigorously, would alleviate poverty. He laments that unfortunately this has not happened and the world, in fact has been hoodwinked by the deceptive policies of the multinationals.

The author believes that the unsustainable public and private debt provided by the multinationals has contributed significantly to poverty and income disparity in developing countries. In fact the debt supported exploitation has almost led the individuals into sort of slavery and has not only undermined the economic stability but the very sovereignty of the countries. The author argues that only a handful people control the resources of the world including technology, energy, the media, the banks and even the governments and it is this small coterie that has driven us into the terrible economic recession. The author states that the deceptive accounting framework, for which the multinationals had managed to secure legality, had enabled these firms to pocket short term profits which, as a matter of fact, had never been earned.

The conclude, the author describes the 'Triple Bottom Line' concept, where along with the financial bottom line the positive social and environmental role played by a firm is also be accounted for. He cites the examples of China and the David versus Goliath to encourage countries to pursue a reform agenda. He also lays stress on regulating and reigning in the firms that control businesses around the world. Moreover forcing the firms to accept greater social responsibility and creation of green market are the other key elements of the reform agenda put forth by the author. (Nasir Iqbal)

Robert Tripp. Biotechnology and Agricultural Development: *Transgenic Cotton, Rural Institutions and Resource Poor Farmers*. Routledge, London and New York: Taylor and Francis Group. 274 pages.

This nicely edited book provides insights into the discipline of genetically modified crops, particularly the Bt cotton. The volume is a nice collection of research / case-studies on production of transgenic varieties of cotton in China, South Africa, Columbia and India. The studies included in the volume discuss the agronomic performance of the genetically modified crops and the environmental issues which the GM crops have given birth to. The book begins with recounting the advances in genetic engineering and concludes with the discussion of the emerging paradigm shift *vis-à-vis* Bt cotton.

Two major benefits of the Bt cotton; the increase in yield and the reduction in the use of insecticides have been discussed in one of the study included in the book. The study cites examples from the Indian states of Maharashtra where the use of Bt cotton has led to 32 percent increase in yield and 46 decrease in the use of insecticides. Karnataka, another Indian state, also boasts of similar numbers. These are significant achievements not only in terms of quantities and revenues but also in terms of intrinsic benefits to the environment, which come about due to lesser use of insecticides. The potential benefits of the Bt cotton notwithstanding, the higher and rising prices of the cotton seed restrains the farmers from making a decisive shift towards transgenic varieties of cotton.

Reading through the book one develops the impression that the findings of extensive research on Bt cotton has led the farmers to adopt the transgenic varieties, however their hopes are still mired in the murky debates, which seems to have lasted a bit longer. What has reduced the intensity of the heated debate is the fact that genetic

engineering, rather than being a phenomenon opposed to nature, only seeks to extend the natural varieties.

After reading the book it becomes clear that research on GM crops has yet to answer a number of environmental concerns. The main concern is the likely impact of the transgenic varieties of cotton upon biodiversity. Moreover we are still not completely certain whether the transgenic varieties are fit for human consumption. Scientists have expressed the fear that 'marker genes' in transgenic crops may curtail efficacy of certain class of antibiotics. The resultant consumption of such a crop may endanger the well being of humans and animals alike. Ecologists were already concerned that the biotic homogenisation has led to the extinction of native plant species and urbanisation was believed to be the major factor behind the loss of biodiversity in this manner. Apprehensions now prevail that the introduction of transgenic cotton may lead to even further reduction in diversity of crop varieties grown indigenously. Environmental issues aside, fears have also been expressed that genetic production of Bt cotton will be taken over by corporate sector thereby causing harm to the traditional farmers. The book has taken up all these issues.

The studies included in the volume attempt to dispel the seemingly pervasive negative impression about the effects of genetic engineering. However, the public at large still seem to believe that the negative externalities of the genetic engineering are too large to be ignored. Perhaps the Jacardian Index analysis has the potential to help settle the debate one way or the other. The concluding chapter nicely sums up the findings of the studies included in the book and points out the limitations in favour of a tactical shift towards transgenic varieties of cotton.

To conclude, the book is a good contribution to the raging debate on pros and cons of biotechnology. The book is highly recommended for all those interested in environmental economics and agricultural economics. (*Abdul Wali*)