An address by Joachim von Braun, Director general of the International Food Policy Research Institute.

Agriculture is at a turning point: energy and climate change are re-defining the global food situation. As demand for affordable energy increases, along with greenhouse gas emissions, bioenergy is increasingly seen as an economically and environmentally sound solution. The growing potential of biofuels creates substantial opportunity for the world's farmers in both industrialized and developing countries.

A modern biofuels industry could also provide developing-country farmers with a use for crop residues and marginal land. However, the extent to which farmers will be able to realize the benefits of switching to biofuels production depends on many conditions, including access to markets and access to technological innovation. Public-private partnerships could help create opportunities for farmers in low-income countries and increase research and development investment in biofuel technologies.

Despite the significant, positive potential of bioenergy, biofuels also pose challenges, especially for the poorest of the poor in developing countries. Increased production of energy crops, for example, has the potential to exacerbate socioeconomic inequalities by concentrating benefits in the hands of those who are already well-off. If not well managed, biofuel production can also lead to deforestation, a loss of biodiversity, and excessive use of fertilizers and pesticides, thereby degrading the land and water that poor people depend on. Policymakers must take care to ensure that biofuel production is managed and regulated in a way that is suitable and avoids these pitfalls.

Biofuels could increase food prices and make them more unstable. According to analyses by the International Food Policy Research Institute (IFPRI), such price increases could range between 5 and 15 percent for various crops, given the current plans for biofuels production around the world. Aggressive growth in biofuels, however, could lead to even greater price increases. By 2020, prices for grain crops could increase by 20 to 40 percent, over and above other causes for price hikes, including increased demand from the growing and wealthier populations of developing countries. Such price increases would pose difficulties for many of the one billion poor people in the world who earn only a dollar a day and typically spend 50 to 70 cents of that on food.

Critics argue that crop production for biofuels compete with and drive out food production, reducing access to affordable food. But hunger today is not simply due to a lack of food availability. The primary cause of hunger is poverty.

Policymakers have recognized that the high demand for energy and the enormous potential of biofuels do not automatically guarantee a positive impact on poor people and developing countries. Creating an industry that helps the neediest people improve their lives and livelihoods will require careful management by both the public and private sectors. In order to make a difference in the lives of poor people, as both energy producers and consumers, and to make to strong environmental and economical contributions biofuel technology needs further advancement.

A comprehensive policy framework is needed that has three major pillars: one, science and technology policy, two markets and trade policies, and three insurance and social protection for the food insecure poor.

To satisfy the world's food, feed, and fuel needs, a new and very different Green Revolution is needed now-one that takes into account bioenergy and climate change. With sound technology and trade policies, as well as social protection programs, win-win - win, so three wins, solutions are possible with biofuels in developing countries and around the world. The results would be positive for the food security of the poor, for energy security, and for the environment.

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