## Reply to 'The Green Revolution did not increase poverty and hunger for millions'

Nature Plants reply — We thank Mehta¹ for his correspondence, and acknowledge his citations regarding global poverty and per capita calorie supplies during the time of the Green Revolution. In A History of the World in Seven Cheap Things², Patel & Moore themselves state that global crop yields increased during the Green Revolution and that real food prices fell worldwide during that time.

However, we feel that Mehta's arguments do not disprove Patel & Moore's arguments or the statement in the review. Just as countries can see rising gross domestic product (GDP) and a rise in poverty rates at the same time, increased crop yields and 'availability' of calories does not prove false the contention that, in developing countries, many people did not actually benefit from Green Revolution policies and may even have suffered from export-oriented agribusiness.

In chapter five of their book, Patel & Moore point out that while the Green Revolution focused on wheat production in Mexico and corn production in India, those crops represented only a fraction of the

agricultural land/output in those countries, asserting that they were grown for export purposes rather than addressing domestic food supplies. They cite a 2000 report from the Institute for Food and Development Policy to state that, "If China — where the agricultural revolution was decidedly redder but no less productive for it — is removed from the analysis, the ranks of the hungry swelled by more than 11 percent over the course of the Green Revolution"3. Patel & Moore provide evidence from the Food and Agriculture Organisation Corporate Statistical Database that both food and protein calories per capita per day in 1980's India were unchanged, if not lower, than levels in 1961. They then go on to make arguments that while food prices globally may fall in line with state subsidies, the Green Revolution was oriented around providing cheap inputs for processed food, which became less expensive than fresh foods in many developing regions: "To get their recommended daily five fresh fruits and vegetables, residents of low-income countries would have to spend at least half of their household income on just these

five healthy items. 70 percent of rural residents in low-income countries can't afford to buy three servings of the cheapest vegetables or two servings of fruit". Such evidence, within the context of the book's larger discussion and arguments about the political economy of food production, suggests that poverty and hunger can increase locally even in the face of global reductions.

We see no reason to argue with Mehta's arguments, nor to retract the statement made in our review of Patel & Moore's book. Nuance is not a vice in any 'honest evaluation of the facts'.

## **Nature Plants Editorial Team**

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## References

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- 4. Miller, V. et al. Lancet Global Health 4, 695-703 (2016).