Sociopolitical Implications of Stability in Agriculture

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Minimizing seasonal variation in yields and reducing the risk of crop failure are often far more important to agricultural producers than is increasing mean yields or returns. Thus a great deal of research is devoted to finding ways to obtain stability (i.e., reduced variation and/or risk) at the level of production.¹ Of course, a given technology or production method can affect both net returns and stability, but here I will focus on the implications of stability independent of those associated with increases in mean yields, efficiency in production, etc.

The sociopolitical implications of stability seem at first to be clear, in that smaller producers may benefit more from increased stability than larger producers. While all producers to some extent wish to reduce risk, smaller growers are particularly vulnerable to extreme losses in any given season, since they are less likely to be able to maintain reserves or alternative sources of income. At the other end of the spectrum, those who buy and sell agricultural commodities on an international scale may view stability as a liability. Lappe and Collins² quoted an official of the Chicago Board of Trade in a 1975 seminar for agribusiness executives as observing that "Stability, gentlemen, is the only thing we can't deal with." Speculation thrives on variation, and may in turn generate greater variation in supply, prices, etc.

Stabilizing production therefore seems to offer relatively greater advantages to smaller producers, as a counterweight to the ability of large producers to ignore risk, or even profit from variation. It may thus be seen as a valuable goal for those who seek a more equitable distribution of wealth, security, or power among agricultural producers. In discussing the advantages of intercropping, or growing more than one crop in the same field simultaneously, Jodha³ noted that a significant implication of its "risk minimizing potential" is that: "... any breakthrough in intercropping technology will benefit lessendowed farmers more than the relatively better-endowed farmers. This offers a unique opportunity of explicitly incorporating equity considerations into agricultural research strategies..."

The value of methods for increasing stability at the level of production is rarely questioned. At most, some authors observe that developing systems of social organization and cooperation which allow risks to be spread among many producers could make technical means to increase stability unnecessary. Under such circumstances, Levins and Wilson⁴ note that then "... stability may lose its priority status as an agricultural goal. At present, stability of yield should be a goal." I wish to suggest here, however, that the full role of stability may not be so simple. Stability produced by technological means could compete with social relations built on cooperation, and under some conditions contribute to the concentration of wealth, rather than to greater equity. Like any other technological achievement, the value of a measure to

increase stability cannot be evaluated independently of its sociopolitical context.

THE OTHER SIDE OF STABILITY

The most obvious potential problems with stability are those that may occur with any technological 'achievement'. First, new technologies may be expensive or require specialized knowledge to be implemented, such that only large producers may be able to afford them, or may control access to them. Irrigation projects are notorious in this regard⁵, and this would be no less true if irrigation is put forward as a method to reduce the risk of crop losses to drought, rather than to increase average yields. Second, in societies where the distribution of wealth and power is highly skewed, the benefits of any new technology may be distributed only as meagre reforms. This concern has been raised about the so-called 'appropriate technologies', to the extent that they may serve as palliatives that avoid crises caused by deeper social imbalances.6 The granting of small concessions of land ownership is another well-known means by which large landowners in developing countries may divide and 'pacify' tenant farmers, who might otherwise be more determined to organize to obtain more significant changes in land tenure.⁷ Similarly, introducing individualistic methods to increase stability could be reformist in its effects if it mainly helps small producers to just get by' and discourages them from organizing.

Increased stability in production has the potential to be even more overtly destructive, because it can be encouraging to those who seek new opportunities for exploitation. Lewis,8 in his study of Tepoztlan in Mexico, describes how the expansion of road systems led to commercial trading in land and charcoal, which disrupted the lives of the local people and contributed to the concentration of wealth. This occurred because the benefits from selling land or charcoal were available only to those who happened to live near the new roads, and general shortages in those items resulted from their commercial trade. On the other hand, Lewis suggested that increased trade in corn was prevented by its "uneven" yields. If this analysis was correct, then an internal system of cooperation and compensation would perhaps have been the best focus of any local efforts to reduce the disadvantages of variable corn vields. The introduction of technical means to increase stability in corn production could have made it vulnerable to the same problems experienced with land and charcoal.

Futhermore, variation and risk could offer some protection from undue outside acquisition.

Even the largest investors prefer low-risk investments, or else they prefer to invest elsewhere, and stability in production could facilitate expansion into less-developed areas by outside interests (e.g., urban landowners; transnational corporations). The economic risks of actually owning agricultural land is one factor that may have slowed the concentration of agricultural production even in industrialized countries.⁹

Of course, sociopolitical alternatives to improving stability at the level of production also possess diverse implications that need to be evaluated. For example, storage against poor years is one way to reduce risk, but storage may also allow speculation in future prices. Insurance is promoted as a way to reduce risk, but this can be another route by which large capital may profit from or direct the risks borne by producers. Cooperative or collective schemes may share risks and enjoy economies of scale, but may become bureaucratized or corrupt, or substitute for more efficient production. The point remains, however, that sociopolitical alternatives may at times better serve the interests of the majority of the people than will technical solutions for the problems of variation and risk. Responsible researchers might therefore search for ways to take advantage of variation, not simply control it.

In summary, stability in production is widely assumed to be especially beneficial for small producers because they are hardest hit by variation and disaster. However, stability has several potential drawbacks as well. Like any technology it may favor large producers if it is expensive, or it may end up serving merely as part of a program of palliative reforms. Futhermore, stabilizing a system of production may make it more attractive to commercial exploitation and/or acquisition by outside interests. who prefer low-risk investments even if they are large investors. The conclusion which clearly emerges from these examples is that even stability is not above suspicion. In order to evaluate its role in agriculture or society in general, one must ask not only how stability will initially be enhanced by new technologies, but also what else may be lost, who will really benefit from the changes in methods, and what alternatives might ultimately be more equitable.

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- 10. I thank Hugh McGuinness, Margaret Reeves, and John Vandermeer for helpful comments.