

Book review. Moseley, William G., Matthew A. Schnurr and Rachel Bezner Kerr (Eds). (2016). *Africa's Green Revolution: Critical Perspectives on New Agricultural Technologies and Systems*. New York: Routledge.

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Sharp and Leshner (2016) in recent call urged the people to embrace the new Green Revolution in the US asserting that more than ever, the US needed to take to the 21st-century scientific innovations, inject massive funds so that better methods of producing food can be developed. This assertion was strongly criticized by Berry and Jackson (2016) attacking Sharp and Leshner terming them ignorant of the dire negative consequences on the society and the ecology of the Green Revolution besides remarkably omitting farmers and farmlands in their article on agriculture. They concluded their fierce attack on Sharp and Leshner by arguing that even the so-called respected scientist who proposes technological innovations and conducts scientific research know little about agriculture and advance these innovations with no regard for neither the farmers nor the land. For Berry and Jackson (2016), the solutions to problems in agriculture lie in the traditional methods of farming that are not only socially sane but also ecologically sound in a way that Green Revolution will never be.

This recent debate exemplifies a bruising battle that has gone on for a long time (and still on-going) between the supporters and opponents of the Green Revolution approach to developments in agriculture. For proponents, their firm support is based on Green revolution's innovative scientific technologies and their immense contribution to crop yields. But the opponents, on the other hand, based their criticism on Green revolution's dire negative effects on not only ecology but also social and economic spheres besides it showing total lack of concern to agricultural players.

This book "*Africa's Green Revolution: Critical Perspective on new Agricultural Technologies and Systems*" positions itself on the critical side of this debate. The arguments here are borrowed from African Geographical Review. Therefore, this edited volume pieces up the

contributions that reveal the problems associated with the New Green Revolution for Africa by questioning the efficiency of the Revolution as a strategy for increasing and improving the crop yields and alleviating poverty in Africa.

Chapter one acts as an introduction which provides a brief overview of the Green Revolution for African continent and covers the Green Revolution's historical formation as well as political background, the logic behind it, its players, general approaches, and featured elements, thus, pitching it against the Green Revolution's agenda in respect to the expected contributions in improving household food security for farmers in Africa.

Through utilization of fieldwork methods and borrowing from case studies from the locality in several sub-Saharan countries, the authors contributing to chapter 2, 3, 4 and 8 highlight on the various Green Revolution's agricultural technologies and market strategies as it focuses on the social and economic impacts it has on low-income urban dwellers and smallholder farmers. Bornstein, in putting this in perspective, highlights Gambia's case where saving seeds and selling them has become a common practice of high rice growers (ch.2). Nyantakyi-Frimpong and Bezner, on the other hand, explore the efficiency of agricultural technologies that are input-intensive within Northern Gambia's agricultural and ecological context (ch.3). Peyton, Moseley and Battersby explore Cape Town, South Africa's case on the effects of formal Western supermarket food strategy and impacts it has on food security or insecurity in the fused or both formal or informal economies especially of lower income earning neighborhoods (ch.4). While Ruby and Bellwood-Howard researched into the effect of access to credit and soil fertility management on livelihoods of the farmers and on sustainable ecological and agricultural practices in Northern Ghana (ch.8).

It is important to note that, all authors arrived at same conclusions with the exception of Bornstein (ch.2). That is, it is necessary to have a fresh view or thinking on the African Green Revolution approach owing to its emphasis and reliance on agricultural technology, productivity, high-input agriculture, its apathetic and apolitical approach to farmers and land (ch.3), market-dependended strategy on food security (ch.4 and 8), and its impacts on the long-term farming sustainability in sub-Saharan Africa (ch.3 and 8).

Bornstein, as earlier said, is an exception as he does not side entirely with the critics of the Green Revolution, especially, on the critic's presentation of smallholder farmers as helpless victims of external

influences and powers who control the process of production in this kind of agricultural system. He further argues that the practices of seed-saving and selling by the Gambian farmers that grow New Rice for Africa (NERICA), a high-yielding variety of rice that was developed and propagated by the Green Revolution for Africa, do not in any way seem to conform to the narratives that the opponent of Green Revolution peddle. This is because NERICA does not subtly harm the independence of the smallholder farmers (pg.9). Gambian NERICA farmers, contrary to expert's recommendations, continuously replant their own seeds or sell them to other farmers, thus, saving themselves the need to depend on off-farm seed dealers (creating autonomy for smallholder farmers), and therefore, maintaining the existing agricultural practices (pg.9-10). This autonomy ensures that smallholder farmers are in control over the agricultural production process and guard them against capitalistic exploitation. This made Bornstein conclude that fusing together transfer in technology and relentless turning of the seed into a commodity is too apathetic to the farmers need to create their own agricultural social realities (pg.11).

It can be agreed that Bornstein's argument is very thought-provoking but his conclusion cannot support the case he presents. According to Bornstein, the seed saving and selling practices of the NERICA farmers are a true manifestation of what food security proponents have been advocating for in their support for local farmers' autonomy (p.9). He further emphasizes that this thinking will ultimately guard farmers against capitalistic exploitation in seed sector (pg.11).

The pertinent question that is not addressed by Bornstein is "who is allowing?" and does not either raise the problems connected with the autonomy that requires the consent of some unknown authority for it to continue or survive. Bornstein's argument on the limited nature of this autonomy can be convincing, especially when he argues that farmers can retain- not full- but some degree of autonomy and that it is possible for farmer autonomy to co-exist with rice agricultural technological change besides supporting the view that NERICA system will ultimately enable farmers to have a vibrant smallholder agricultural system (pg.11). However, these limitations are not so explicit but rather implied in his arguments. It can be noted, therefore, that Bornstein fails to recognize that farmers' autonomy in the case of NERICA seems to be realized not so because of the farmers' success in asserting agency but because NERICA was not putting into full practice in this region. Consequently, when Bornstein puts a lot of focus on farmers' agency at the expense of socio-eco-political structures such as incentives, administrative and legislative measures

in evaluating the Green Revolution's outcome, he runs the risk of arriving at a wrong conclusion. That is, if farmers lack autonomy because of dependence on external players, it is because they lack agency, a similar conclusion to what Bezner Kerr and Nyantakyi-Frimpong (ch.3); Ruby and Bell-Howard (ch.8) made.

Although this argument by Borstein differs from those of others in the volume, they agree on one thing: context determines the success. Its importance lies in the context and all of them, in all the chapters, seem to concurrently call for attention to political, economic, social, agro-ecological and geographical contexts when evaluating or designing any food or agricultural policy. This stands out as the main theme or message that overrides all the chapters. In that connection, Nyantakyi-Frimpong and Bezner Kerr (Ch.3) attacks the generic and insensitive technological innovations in agriculture that seem to rely heavily on singular technological fixes arguing that technology transfer should be simple but also very sensitive to the context both socio-eco-political production process (pg.30). Python, Moseley, and Battersby (ch.4), on the other hand, emphasize the importance of having food being easily available or accessible to poor households in order to ensure their food security. Jones, Schnurr, Carr and Moseley (Ch.5) in appreciating contextualized development policies argue that a lot of work needs to be done in the field to ensure such policies succeed. This similar view is echoed by Ruby and Bellwood-Howard (Ch.8). Their main reason for criticizing the Green Revolution is that the Revolution has miserably failed to live up to what was its expectation, particularly, in being context specific but has only become a straight-jacket thing. The claim by Green Revolution that they are site-specific is not always so in practice according to these authors' argument. This, therefore, makes this approach very inept to improve the livelihoods of all farmers.

This volume, together with what other eco-political scholars have contributed, will go a long way in informing future agricultural policy-making and decisions by both policy makers and NGO's in Sub-Saharan Africa. The context-specificity of agricultural developments emphasized by all these authors will serve as a corrective measure to all the policies implemented as a policy that fits all the contexts. Furthermore, this context-specificity approach will provide a better understanding of context-specific agricultural technologies and their implications within Green Revolution's framework for Africa.

References

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