

Responses to Referee Reports

We are grateful to the three Referees for their most helpful comments and suggestions.

Our responses are inserted below, point by point.

Joachim von Braun

Christian Henning - Referee report 1

August 03, 2017 - 11:06

Referee report on “Key policy actions for sustainable land and water use to serve people”, Economics Discussion Paper No. 2017-39, Joachim von Braun, Ashok Gulati, and Homi Kharas.

Given the global challenge to achieve food security for all, ending hunger and pursue sustainable agriculture the authors identify four action areas of a sustainable land, water and energy policy strategy and propose concrete actions that G20 countries’ policy makers, corporate and civil society actors, and those of other countries should implement in coordinated fashion. Action areas include (1) focusing land, water and energy policies on the wellbeing of people, (2) investing in innovations, (3) making use of digital opportunities for sustainable agriculture and (4) Re-designing global governance of agriculture and food. The authors put policy coherence for sustainable development to the forefront of their recommended policy action strategy. Regarding the latter especially linkages and potential trade-offs between different policy domains (water, land use, energy policies) as well as between different action levels (domestic, multi-national, global) are discussed in the paper.

Overall, the paper is certainly an important contribution to the development of a coherent G20 policy strategy towards the 2030 Agenda for Sustainable Development, well written by an author team comprising of leading agricultural economists in this field.

However, I nevertheless would see some potential to improve this policy paper even further. In particular, I have the following comments:

1. The paper focus on interlinkages between the three particular policy domains: water, land use and energy policy. Although these interlinkages are certainly important there exist other trade-offs and interlinkages that are also important for a coherent policy strategy which have been neglected in the paper. For example, interlinkages between water, land use and energy policy and other policy domains, e.g. trade or development policy, respectively (see Lay et al. (2017)). Furthermore, there are trade-offs regarding policy impacts on different SDGs, e.g. impact of investments in innovation on growth as well as its long-term implications for greenhouse gas emissions or biodiversity. Moreover, there might be trade-offs regarding the domestic and external dimension of policy impacts, e.g. impacts of European Common Agricultural Policy reforms supporting ecological farming on sustainability and economic development within the EU as well as abroad, for example in African countries.

Response:

We agree with the reviewer. There are these other trade-offs appropriately mentioned by the reviewer. Water, land, energy have been touched upon in our paper. However, as the G20 had settled on the water policy issues more directly, and as we felt that there was scope to improve on the G20 policy thinking in that domain, we dealt only with these. We now inserted a qualifying statement to that effect in the text.

2. A main objective of the German G20 presidency is to make progress on realizing the goals of the 2030 Agenda not only in G20 countries themselves but also through their international cooperation with, for example developing countries. Accordingly, G20 policy actions are located at different action levels, e.g. at the domestic, bilateral or multi-national as well as the global level. In this regard the paper suggests a clear pattern relating policy areas with action levels. For example, implementation actions proposed for area 1 “People Focus” are mainly located at domestic level of the G20 countries themselves, especially China and India. In contrast, proposed implementation actions in the area “Governance” are located at the global level, while the domestic or multi-national level is neglected for this area. However, G20 countries certainly can also implement actions aiming to improve or re-design “Governance” at the national or even local level. Vice-versa G20 actions are conceivable at the global level for the area “People Focus”. Analogously, implementation actions proposed for the policy action areas “Innovations” and “Digitalization” are mainly located at the domestic and multi-national levels, but less on the global level. Hence, although action levels discussed (proposed) for specific policy actions in the paper clearly make sense, the paper, however, could benefit from a more elaborate discussion at this point, e.g. explaining priorities of different action levels for proposed implementation actions.

Response:

The reviewer makes an excellent suggestion. This issue of governance at different levels – global, national, local- indeed deserves G20 attention. The issues are being addressed in the referenced source (von Braun, J. and R. Birner (2017) Designing Global Governance for Agricultural Development and Food and Nutrition Security. Review of Development Economics. Vol. 21(2) pp. 265-284.) but not elaborated further. A qualifying para is now inserted.

3. Actions proposed in this paper are focused on policy interventions aiming to influence production, while interventions aiming to influence consumer behavior are not explicitly discussed. However, consumer behavior, e.g. patterns of food and energy consumptions (e.g. meat consumption, transport or traveling) have a significant impact on both sustainability and economic development. Hence, it would be interesting to learn about the authors’ opinion on the potential of consumer oriented policy interventions to contribute to a coherent G20 policy strategy towards a sustainable land and water use to serve the people.

Response:

We agree that adjustments in consumption is critical. We touch on this on three occasions in the paper and do not feel we should expand on the issue.

4. Reading the paper suggests that achieving sustainable development is basically a technical problem to implement an adequate policy strategy. However, this appears to me as a (a little bit) too optimistic view. First, there exist unsolved trade-offs between different SDG’s in the sense that at least until 2030 we cannot realistically achieve simultaneously maximally desirable target levels for all SDG’s. Thus, sustainable development corresponds to a fundamental dilemma situation. Secondly, for any policy strategy there always will exist winners and losers at all levels, i.e. local, national, supranational and global. Accordingly, a prerequisite for the implementation of any successful policy strategy towards the Agenda 2030 for Sustainable Development are effective governance systems at all levels, that allow the formulation and implementation of a politically feasible compromise between conflicting interests. The latter is essential to achieve a main objective of Agenda 2030 that

is “leaving no one behind”. This might call, however, for an innovative organization of political processes that goes beyond simple stakeholder participation in form of a stakeholder forum. In this regard the paper is still silent.

Response:

We agree that unresolved trade-offs exist, and address that now with the inserted sentence mentioned above. Our emphasis on “people focus” rather than the much emphasized simplistic “crop-per-drop” focus in policy is drawing attention to equity issues. A more elaborate analysis of winner-looser patterns of policy changes we felt was beyond the scope of the paper.

References

Jann Lay, C. Brandi, R. Upendra Das, R. Klein, R. Thieler, N. Alexander, I. Scholz (2017): Coherent G20 policies towards the Agenda 2030 for Sustainable Development. G20 Insights Policy Brief, http://www.g20-insights.org/policy_briefs/coherent-g20-policies-towards-2030-agenda-sustainable-development/.

Response:

Thank you for this source. We inserted it now.

Anonymous - Referee report 2

August 17, 2017 - 11:15

The authors argue that it needs a holistic or comprehensive approach for developing new resource policies. Land, water and energy policies should not be developed in isolation. Instead, these needs to be considered jointly in policies and also linked to agriculture. Linkages will be key to addressing and achieving food security and improved nutrition for all. The authors propose 1.) Focusing land and water resource policies on human wellbeing; 2.) Investing in and sharing water, agriculture and energy innovation; 3.) Making use of digital opportunities for sustainable agriculture, and 4.) Re-designing global governance of agriculture and food. Four implementation options are proposed for the four G20 areas, the people focus, innovations, digitalization, and governance. G20 member countries can collaborate, assist and support each other, share technologies and innovations, and G20 can implement regulatory frameworks since, e.g. land degradation, climate change, water overuse, are to a considerable extend a global burden.

Overall, an interesting, well-written paper that addresses important interlinkages and challenges, which need to be considered in future directions of G20 policies. One of the main issues, “people’s wellbeing” is coming off badly. “People’s wellbeing” is in the focus of the proposals, however, not all facets of how wellbeing can be achieved are considered. The authors describe that people are exposed to health, food safety, and hygienic risks due to technical constraints. Further, small scale farmers and agricultural practices are mentioned, which can have an impact on wellbeing, too. It is not mentioned that people’s wellbeing also depend on how they individually behave and decide, e.g., choices of food eaten influences wellbeing as well. Knowledge and information, but also preferences, habits and attitudes can play a role. In this context, behavior oriented policies would come into play. Have the authors thought about addressing behavior oriented policies? Should these also part a G20 policy strategy?

Response:

Thank you for this suggestion. Behavioral change is critical in many respects, for instance related to excessive food consumption among middle class, and related to sanitation and drinking water storage and utilization among low income households. We inserted a statement to this effect.

Anonymous - Referee report 3

September 08, 2017 - 09:07

This paper calls for increased cooperation and coordination between donors, recipient country as well as other stakeholders in order to improve land and water use. The authors provide evidence of the wide variety of challenges with respect to the use of the scarce resources land, water, and energy. Their overuse, inefficient use and lack of holistic approaches in their allocation have serious consequences for people's well-being already, for example through nutrition, poverty and health. In the medium and long term sustainability concerns and the readiness to cope with climate change with even increase stakes.

The authors' main proposals are therefore timely and highly welcome. First, they argue for land and water policies to be designed to serve human well-being. Second, they call for investment in relevant technology, skills, and more sensible policies, highlighting synergies that joint action by the G20 can create. Third, they highlight the role of digital technology for measurement, planning and implementation of land and water allocation. Fourth, the authors propose that the G20 should develop and introduce sound international standards for a sustainable bioeconomy and economic policies that factors in trade effects of water and land use. Finally, they propose an IPCC-like international panel on Food, Nutrition and Agriculture to provide advice and to aggregate scientific knowledge on this important field.

The authors do an excellent job at highlighting the fields in which improvements would be necessary and where coordination by the G20 would be particularly beneficial. However, several of these points can also be addressed by other international bodies, subgroup of the G20 or the UN or individual countries.

Response:

We appreciate the reviewer's comments and agree that other bodies, such as UN etc. can and must play a role. The emphasis on G20 is due to the attention by G20 to these issues. We inserted a more generalizing statement now.

This overview and the proposals in this paper are highly recommended to interested readers who would like to gain a broader perspective how agriculture and other uses of land and water can be made more efficient for human well-being now and in the future.