4-23-2019

# Deliberation for Development: Ghana's First Deliberative Poll

Dennis Chirawurah
*University for Development Studies*, afeyire@gmail.com

James Fishkin
*Stanford*, jfishkin@stanford.edu

Niagia Santuah
*University for Development Studies*, niagiafsantuah@gmail.com

Alice Siu
*Stanford University*, asiu@stanford.edu

Ayaga Bawah
*University of Ghana, Accra*, aabawah@gmail.com

Gordana Kranjac-Berisavljevic
*University for Development Studies*, novagordanak@gmail.com

*See next page for additional authors*
Follow this and additional works at: https://www.publicdeliberation.net/jpd

Part of the African Studies Commons, Other Communication Commons, Other Political Science Commons, Policy Design, Analysis, and Evaluation Commons, and the Public Policy Commons

# Deliberation for Development: Ghana's First Deliberative Poll

## Abstract

This article poses the problem of public consultation in developing countries and applies a solution in Ghana as a test case. It describes the theoretical rationale for deliberative consultation with random samples, describes specific criteria for success, and then assesses an application under the challenging conditions of a developing country. It builds on notions of "deliberative democracy," and shows how they can be practically realized in an African context through "Deliberative Polling" (DP). The challenge is that the context is one of the poorest parts of one of the poorest countries in Africa. Rather than consulting just stakeholders, or self-selected populations, or using conventional surveys, DP's have the advantage of consulting random samples with deliberation in depth in confidential surveys so that the opinion changes can be evaluated at the individual level, free of social pressures for consensus. Is this practical in this context? A DP was conducted in Tamale, Ghana on issues of water, sanitation, hygiene and food security. Criteria for success for DPs that have been applied in highly developed countries are discussed and then applied in Ghana under challenging conditions.

## Author Biography

Dennis Chirawurah is the Director of the West Africa Resilience Innovation Lab and lecturer in the School of Medicine at the University of Development Studies Ghana.

James S. Fishkin is the Janet M. Peck Chair in International Communication, Professor of Communication and Political Science (by courtesy) and Director of the Center for Deliberative Democracy at Stanford University.

## Keywords

## Acknowledgements

the results of deliberations in self-selected samples with unstructured moderation in one of the few applications of "deliberative democracy" in Africa.

**Authors**

Dennis Chirawurah, James Fishkin, Niagia Santuah, Alice Siu, Ayaga Bawah, Gordana Kranjac-Berisavljevic, and Kathleen Giles

Over the last two decades, there has been a widespread "deliberative turn" in democratic theory, emphasizing the role of public discussion in weighing competing reasons for public policies and electoral choices. The emphasis on "deliberative democracy" has usually presumed the institutional context of countries advanced in development, and with established electoral democracies.[1]

Over the same period, there has been a widespread *participatory* turn in development policy. Increasingly there is a presumption in developing countries that participation by the public should be an essential part of the process whereby communities and governments take "ownership" of the policies that will affect them. Participation has benefits in creating active citizens, in holding governments and policy makers accountable and in clarifying policy priorities for the government, for NGOs and for the donor community.

Joseph Stiglitz (2002), for example, argues that "development is a participatory process." More specifically, "an understanding of the centrality of open, transparent and participatory processes in sustainable development helps us to design policies—strategies and processes—that are more likely to lead to long-term economic growth and that reinforce the strengths of the processes themselves" (Stiglitz, 2002, p. 164). Amartya Sen (1999) has made the further argument that processes of "participation in decisions and social choice" should be "understood as constitutive parts of the *ends* of development in themselves" (p. 291, emphasis in original). Public deliberation is essential to clarify the "formation of values and priorities" (Sen, 1999, p. 153).[2]

 The emphasis on public participation in development has been institutionalized. Over the last two decades, the World Bank and other key institutions have fostered the "Comprehensive Development Framework" (CDF) in which participation by the public is held to be essential for policy ownership. "Development goals and strategies should be 'owned' by the country, based on citizen participation in shaping them" (World Bank, 2003, p. xviii). Yet when the CDF was subjected to a systematic multi-country evaluation there were some clear challenges depending on how the participations were organized or designed.  Self-selected public

[1] The phrase "deliberative turn" was coined by John Dryzek (2002). For some collections that gather the most influential of these discussions regarding deliberative democracy from various perspectives, see: Bohman & Rehg, 1997; Elster, 1998; and James S. Fishkin and Peter Laslett, (2003), *Debating Deliberative Democracy*. For the contrast (and some commonalities) between deliberative and participatory democracy, see Pateman (2012).

[2] "We cannot, in general, take preferences as given independently of public discussion, that is, irrespective of whether open debates and interchanges are permitted or not" (Sen, 1999, p. 153).

participation is open to "capture by vested interests" (World Bank, 2003, p. 26). It is usually unrepresentative of the population. While it can mobilize support for particular policy options it rarely grapples with trade-offs or hard choices. There is the potential for "participation to degenerate into gripe sessions" (World Bank, 2003, p. 26). Consultation with stakeholder groups who purport to represent the public can pose other problems. The stakeholders who often speak for the people can have viewpoints and interests distinct from those of the people themselves. Hence the general argument for participation needs to confront the challenge of specifying the most appropriate method or design for participation: "The attempt to broaden participation within the society was perhaps insufficiently thought through" (World Bank, 2003, pp. 26-29). Separately, a World Bank Report on the influential model of "participatory budgeting" offered a picture of many of the same limitations and noted that the self-selected design of participatory budgeting was highly unrepresentative (World Bank, 2008, pp. 27-30). People are mobilized to get benefits for their neighborhoods. This may be good from the standpoint of social justice in that poor neighborhoods get services where they did not before. However, the mobilized participants are mostly pre-determined in their views and focused on their neighborhoods. They are largely insulated from arguments serving all the people as a whole.

In the same spirit as the CDF, the United Nation's (2015) "Sustainable Development Goals" include the aspiration to "build effective, accountable and inclusive institutions at all levels" (goal 16). More particularly, they aim to "ensure responsive, inclusive, participatory and representative decision-making at all levels" (United Nations, 2015, sub-goal 16.7). Hence a strategy for inclusion in public participation is required for sustainable development. How can this inclusion best be accomplished to allow for substantive conclusions about what needs to be done?

**Deliberation With Random Samples**

There is a model for the application of deliberative democracy which could in theory be used to respond to the challenges just mentioned. Instead of self-selection, it employs random selection as a strategy of inclusion to ensure representativeness. It is designed to capture the voice of the people and not just the stakeholders. And it can be employed to engage the public in the true dilemmas posed by policy tradeoffs. This model, some variation of the mini-public chosen by random sampling and convened for extensive deliberation, has mostly been applied in the established democracies of the developed countries (Gronlund, Bachtiger, & Setälä, 2014).

Deliberative Polling is one particular version of the mini-public strategy. It assesses the representative opinions of a population, both before and after it has had a good chance to really think about an issue and discuss it in depth. The idea is to gather a representative sample, large enough for the opinion changes to be evaluated in a statistically meaningful way, and engage it in transparently good conditions for considering the pros and cons of competing policy options. Most citizens, most of the time, in most countries around the world, do not spend much effort considering public policy questions in depth. The premise of Deliberative Polling is that when policy options are important for a community, then public consultations about them should be representative of the population and thoughtfully based on the best information available. Therefore, there is a case for engaging a meticulously recruited random sample in transparently good conditions for considering the issues and arguments for and against various policy options. The resulting opinions are collected confidentially at the individual level to protect the opinions from the social pressures of reaching a consensus. If there is a consensus, it will be apparent in the data.

The method offers certain advantages over other methods of public consultation. Self-selected town meetings are unlikely to be representative because they only involve those who feel strongly enough to attend. Focus groups cannot be used to represent opinion because they are too small to be statistically meaningful. Rather they are useful for uncovering the way the public frames an issue as a step in facilitating more systematic research. Conventional polls, while potentially representative when done well, largely offer the public's impression of sound bites and headlines. They do not reflect what the public would think if it were actually engaged in thinking about the issues. Deliberative Polling is a method that attempts to offer representative and informed opinion. It offers a road map to the policies the public would accept, on reflection and for what reasons. It can also offer a guide to those the public would have reservations about, and for what reasons. When done well it is a practical method for realizing deliberative democracy on selected issues in a community.

The idea is to provide empirical evidence for a normatively relevant hypothetical claim: *this is what the people would think under good conditions for thinking about the issue in question*. (Fishkin, 2018) It may not be what they actually do think now, because they may not have focused on the question and they may not have engaged with the arguments for and against the various policy options on the agenda for discussion. But what if they did? If we are to have public consultation, do we want to know what the people think, when they lack engagement, attention and information, or do we want to know what they think when they have come to grips with the policy issue and really thought it through? And, which people should we

be consulting? Do we want to know only what the people who feel strongly think? Or only those who can be mobilized by factions or organized interests? Or do we want to know what a representative sample of everyone in the community would think?

Responding to our very simple hypothetical question poses surprisingly demanding requirements even in the most developed societies. Most democracies most of the time do not have institutions in their democratic practices that satisfy them (Fishkin, 2018). Before moving to the African context, let us spell out some practical desiderata.

Both the merit and the vulnerability of this approach to public consultation is the hypothetical inference—these are the conclusions the population would come to if it could somehow consider the issue in depth under good conditions. The conditions must be credible as good conditions (access to good information and relevant arguments on either side, for example) and the sample must be representative. Consider some criteria for the design of such an effort, criteria building on one or the other of these two basic points—the representativeness of the sample and the "good conditions" for considering the issue:

1) *Demographic representativeness*
2) *Attitudinal representativeness*
3) *Sample size*

If these three aspects are satisfied, then we would want to engage such a sample in good conditions for deliberation. The following factors need to be considered:

4) *Whether or not participants have the opportunity to engage with policy arguments for and against proposals for action in an evidence based manner.*
5) *Whether or not there is knowledge gain.*
6) *Whether or not there is opinion change evaluated at the individual level.[3]*
7) *Whether or not the dialogue is dominated by the more advantaged.*
8) *Whether or not there are identifiable reasons for considered judgments after deliberation.*
9) *Whether or not the deliberations produce considered judgments in a policy context where they are likely to be acted upon.*

The rationale for 1) and 2) is that if there are substantial differences between the deliberators and the population they represent, then the basis for our hypothetical

---

[3] Opinion change is not itself a criterion for success of the deliberations. See the discussion below.

inference is undermined. The dialogue might well come out differently. Put another way, the project lacks external validity, in that the conclusions of the microcosm do not represent what the broader public would think. For example, if significant portions of the population are left out (suppose the poor are not represented, or a major ethnic or racial group with interests in the issue is left out) their absence plausibly alters the dialogue and its conclusions, from those that would have been reached by a more representative sample. This consideration applies both to demographics and to policy attitudes. Suppose the opponents of the policy are not included, or its strongest proponents are not? The more we can establish that the deliberators constitute a credible microcosm of the population, then the more plausible the hypothetical inference becomes. Data comparing the demographics and policy attitudes of the deliberators and the population as a whole, or the deliberators and those who take the initial survey but do not attend, can provide a basis for evaluation of representativeness. Hence the importance of 3) the sample size. If the sample is too small, then it becomes impossible to draw inferences about the representativeness of the sample or about the statistical significance of opinion changes, even when those changes are substantively large. Hence the problem with "jury" sized "samples" where the opinion changes would be wiped out by sampling error.

Once the sample is recruited, what does it do? What are the opportunities in 4) above to engage arguments for and against policy proposals in an evidence-based manner? The root notion of "deliberation" is the weighing of competing arguments. Hence, the deliberators need an effective opportunity to consider the merits of the case for and against the proposals on the agenda. Further, the case they consider should be based on evidence, where possible, rather than mere assertion or supposition. Do they become more knowledgeable about the evidence (criterion 5)? Hence the need for knowledge questions before and after deliberation to assess knowledge. Uninformed opinions, even those resulting from a sincere weighing of arguments and competing values, may lead policy recommendations to go awry. The design needs to give voice to representative and informed opinion.

Criterion 6 specifies that it should be possible to evaluate opinion change at the individual level. Strictly speaking the point of deliberation is not to change opinion (to appear to aim for opinion change would distort the process with demand characteristics). However, if the deliberations usually did not produce opinion change there would be little reason to engage in such an elaborate process to organize deliberations. One could simply conduct conventional polls instead. Note that even in cases where the opinions have not changed, the likely basis for those opinions will have changed because people will have a much clearer sense of the reasons for or against a policy. The opinions at the end of the process will have

been tested against all the competing arguments that can be mustered in critique. The point of the criterion is that when there is opinion change it should be possible to evaluate it in a statistically meaningful way at the individual level. Hence the data is not from a shared consensus but collected confidentially at the individual level. Jury-like processes would expose the opinions to social pressure as a verdict or consensus is reached. But with confidential surveys the conclusions can be protected from social pressure.

Criterion 7), avoiding domination by the more advantaged, is essential for defending the conclusion that the deliberators have really deliberated on the merits. Ideally, we would attribute their post-deliberation conclusions to what Jurgen Habermas (1996) calls "the unforced force of the better argument" (pp. 305-306). But there is a long line of criticism of citizen-based discussion being distorted by another force—the predictable pattern of group psychology in which the advantaged dominate the process and impose their views on everyone else. Political theorists of deliberation, building on the jury literature have found this distortion common if not nearly inevitable (Sanders 1997, Young, 2003). "Inequality is always in the room" as Lupia and Norton (2017) argue in their elegantly entitled critique of deliberation. Nancy Fraser (1992) argues that in order to have a relatively equal dialogue on the merits, one in which are inequalities are "bracketed" (in which they are suspended in their effect for purposes of deliberation) we would need to eliminate them in the broader society. They are otherwise intractable (Fraser, 1992).

There is a basis for worry that this problem might be even more challenging in developing countries. The less educated and informed might be even more likely to simply defer to the more educated and higher status among them. They have less independent access to the substance of the issues, less literacy to access written briefing materials. Domination by the more advantaged undermines any claim that the conclusions represent considered opinions on the merits. They would represent the force of the more advantaged, not the force of the better argument.

Criterion 8) is whether or not there are identifiable reasons for the conclusions the deliberators arrive at. If deliberation is about weighing competing arguments, then what are the arguments? What can we say about the participants' consideration of reasons for arriving at their conclusions? Does the design permit an assessment not only of what the deliberators concluded but why?

Criterion 9) is that the deliberations should occur in a policy context where the conclusions can be acted on. Deliberative democracy is not just talk. If democracy is about connecting public will to public action, then the reason-based conclusions

of a representative sample should be positioned to have some impact on the issues being addressed.

These demanding requirements require an institutional design. All democracy is a matter of institutional design, so it should not be surprising if deliberative democracy institutions, even when convened only episodically, require their own design.

We have already noted that these criteria seem ambitious. Can they be fulfilled in the challenging policy contexts of developing countries? Critics have said that deliberative democracy is only suitable for highly educated populations. It is "the democracy of elite intellectuals" according to Russell Hardin (1999), who concludes, "deliberation will work, if at all, only in parlor room discourse or in the small salons of academic conferences" (p. 112). Some critics have argued that deliberative democracy is "problematic" with the mass public even in the most developed countries such as the United States (Rosenberg, 2007). As we will see below, the one explicit attempt to apply "deliberative democracy" by the mass public in Africa, apart from Deliberative Polling, was very pessimistic in its assessment (Humphreys, Masters, & Sandbu, 2006). Can the Deliberative Polling approach be fruitfully applied in developing countries to populations low in education and literacy? Can it be applied in Sub-Saharan Africa?

**Deliberative Polling in Ghana**

From the standpoint of democracy, Ghana offers a comparatively favorable context in Africa for an application of deliberative methods. There is a tradition of free speech, contested elections and peaceful transitions of power. Ghana is one of the few countries in Africa rated as "free" in the international Freedom House ratings (Freedom House, 2016). It is widely regarded as democratic (Adetula, 2011). This achievement is notable despite its low level of economic development and lack of other structural conditions that usually support democracy (Osei, 2015).

In addition to these general democratic conditions, there are long-standing practices of citizen discussion for the solution of community problems. Traditional rulers in Ghana meet the public at "durbars" (a term which comes from an Indo-Persian term for "ruler's court') (Ofori-Ansu & Pipim, 1997). In contemporary Ghana, "a community durbar which would involve all stakeholders in the community to ensure a maximum ownership of the project by the community hence sustainability" (Agyemang, 2014, para. 2). The structure of these community meetings varies widely but they indicate a foothold in the political culture for community-based citizen discussion about policy choices.

**The Tamale Project**

The University for Development Studies in Tamale, Ghana and Stanford University, members of the Resilient Africa Network, conducted Ghana's first Deliberative Poll (DP) in January 2015. The project provided a good test for whether a random sample of the public, chosen to consider the issues in depth—a deliberating mini-public—could provide a useful form of participation for policy ownership by the people in a developing country. A random, representative sample of the Tamale Metropolitan Area was convened for a two-day deliberation in Tamale. The participants in Tamale deliberated face-to-face on January 10-11, 2015.

Tamale, the administrative and commercial capital of northern Ghana, is the country's third most-populated city with a population of 461,072 in 2010. The 26% increase in population over the last decade outstripped the government's capacity to provide sufficient water resources, sanitation and hygiene infrastructure. Investments made by the government in recent years have been ineffective in improving the situation. As a result, Tamale residents suffer from a range of problems including disease and food insecurity. This Deliberative Poll was focused on two main categories of issues: Water, Sanitation and Hygiene (WASH); and Livelihood and Food Security. The purpose of the Deliberative Poll was to provide direction for the local government, as well as donor agencies, on how to address the most pressing needs faced by people in the metropolis.

An Advisory Committee of stakeholders, NGOs, academic experts and government officials developed and vetted the briefing discussion materials. The Advisory Committee included members from two relevant NGOs, one regional government-sponsored development authority, traditional authority represented by the Chief, the Metropolitan Assembly (city government) represented by its Presiding Member, and university based experts from Tamale and abroad. It totaled 11 members and is listed in Appendix G. Their work built on previous focus groups and key informant interviews, which provided initial input for selecting the topics for deliberation. The stakeholder deliberations are designed to make sure that the issue fits a policy context where the results could be acted upon. Stakeholders on the advisory committee include decision makers and influential figures in the community. Their involvement in the process at the beginning helps with buy-in for policy implementation at the end.

The two days of discussion at the DP were divided as follows: Livelihood and Food Security on day one, then Water, Sanitation and Hygiene on day two. Given the low literacy rate of the population, a fifteen-minute video version of the briefings was produced and shown at the beginning of each day of deliberation.

## Applying Our Criteria

As noted, our organizing question poses a hypothetical: what would the people of a community think should be done if they could consider the pros and cons of the policy options in depth? The basic approach is to recruit a random sample, a representative microcosm of the community, and engage it in deliberations on the issue. A number of requirements follow from this simple idea. The first is that the sample be representative both in its demographics and in its attitudes (criteria 1 and 2). Was the method successful, in other words, in putting a microcosm of the city in one room? Such a task poses challenges in Tamale because of explosive growth and an ever-changing population. This question can be answered in part by comparing participants (those in the random sample who take the initial survey and participate) with non-participants (those in the random sample who take the initial survey and do not participate). Our third criterion, is that the participant sample size be adequate to evaluate the representativeness and the opinion changes of the deliberators? This is a matter of research design and successful recruitment. Fourth, did deliberation appear to make any difference? Were there significant opinion changes?[4] Are the results any different from those we would get from an ordinary poll?

Fifth, did the participants become more informed? One skepticism about deliberation with a less educated sample is that there might not be any knowledge gain because many, if not most, of the participants cannot use written briefing materials. This question can be answered by posing knowledge questions in the surveys both before and after deliberation. The surveys are administered in oral interviews so the less literate should be able to participate.  Sixth, is there evidence that the final considered judgments of the sample were supported by coherent and identifiable reasons? Essential to the idea of deliberative democracy is that participants weigh competing arguments in coming to their conclusions.  This evidence could be gleaned from transcripts from the small group discussions as well as from regressions. Sixth, were there significant opinion changes? This question can be answered by comparing the initial survey on first contact with the final survey at the end of the deliberations. Seventh, did the process avoid distortions from inequality? A main concern, especially with a less educated population is that the discussions would be dominated by the more advantaged and the others might simply defer to their views. This question can be answered by looking at whether the movements of opinion were systematically in the directions

---

[4] This application of Deliberative Polling, unlike some others, did not have a control group. On these specific policy proposals, it is unlikely that events in the wider world caused the opinion changes.

favored by the more advantaged in the sample. Eighth, did the participants offer identifiable reasons in support of their conclusions? Can we find from the transcripts or from the questionnaire reasons that support their judgments? Ninth, did the results produce plausible policy prescriptions that have a chance for implementation? The agenda for the deliberations was generated by an Advisory Committee of relevant stakeholders positioned to determine options for action that could be implemented if the public really supported them. The same stakeholders can be engaged in dissemination meetings for the results. The conclusions of the microcosm and its reasoning in support of the favored options provide a great deal of material that can be used to support implementation of the public's conclusions. It is a route to public buy-in for the favored policies. These are the options the public thinks really have merit—and why.

**Was the Sample Representative?**

A scientific random sample of the Tamale metropolitan region was surveyed and then invited to two days of deliberation. The sample was recruited through stratified random selection of households, from a roster provided by the Ghana Statistical Service. Individuals were randomly selected within the randomly selected households for face to face interviews.

In total, 243 persons were interviewed and only 2 persons selected declined to take the initial survey. Thirty-five respondents completed the baseline survey but did not attend the deliberations. A total of 208 persons completed the actual two days of deliberations. Tables A and B in the appendix show that there were very few significant differences between the participants and non-participants in either demographics or attitudes. The response rate was 85%, a high level by any standard for surveys and even more remarkable for participation in two full days of deliberation. Hence criteria 1, 2 and 3 appear to be satisfied by this successful recruitment.

**Policy Attitudes**

All of the policy proposals were rated before and after deliberation on the same 0 to 10 scale, where 0 is "extremely unimportant" and 10 is "extremely important" and 5 is exactly in the middle. In the Tamale Deliberative Poll, 28 of the 40 policy proposals (72.5 percent) showed statistically significant changes after deliberation.

The proposals were all rated highly before and after. All of them stayed on the "important" side of the scale. This is not surprising since they all focused on basic sanitation, health and food security issues for a population facing severe challenges

in these areas. Since all the proposals spoke to urgent public health challenges, it could be argued that the arguments in favor were mostly stronger than the arguments against. That is a limitation of the project resulting from the fact that the Advisory Committee did a good job of setting an agenda for well-targeted practical proposals. But while we acknowledge this limitation, it deserves some caveats: first some of the proposals did indeed pose very difficult choices. Second the relative priorities among the proposals changed. On reflection some of the important priorities seemed more important than others. Third, even when the arguments on one side are stronger than on the other, we can identify coherent reasons for support of the participants' considered judgments. Reason based opinions on the policy options is what we need for criterion 8.

Consider some hard choices. The briefings made clear that the public latrines and the areas for gardening were currently very much in the same places. On the map (see Figure 1) they appeared to be in nearly identical locations. Given the scarcity of water, and the fragility of food security, it is not surprising that a great number of people survive by raising food in gardens using untreated waste water. Hence a focus on food security would have its cost in the spread of diseases, especially cholera. But a focus on health would require sacrifices in food security. This tradeoff was explored in question 40:

> Some people think that vegetable farms should produce as much as possible, even if they have to use the waste water from toilets (at point 0). Other people think that vegetables should only be produced with clean water, even if that means fewer vegetables are produced (at point 10).

Before deliberation, the support was already strongly on the clean water side of the trade-off (at a mean of 9.04 on the ten point scale). After deliberation it moved even further to 9.53 on the scale, a gain of nearly half a point and a significant change (p=.0004). Participants were significantly more willing to emphasize clean water to avoid disease even at the cost of food security.

This trade-off is also reflected in the policy option: "Ban the use of untreated waste water for gardening" an option that increased from 8.53 on the ten point scale to 9.09, an increase of more than half a point and a significant change (p=.0004). This option shows the willingness to require a ban on the practice so it is not merely a prescription but a proposal for a legal requirement.

*Figure 1.* **Map of Toilet Facilities in Tamale Metropolis**
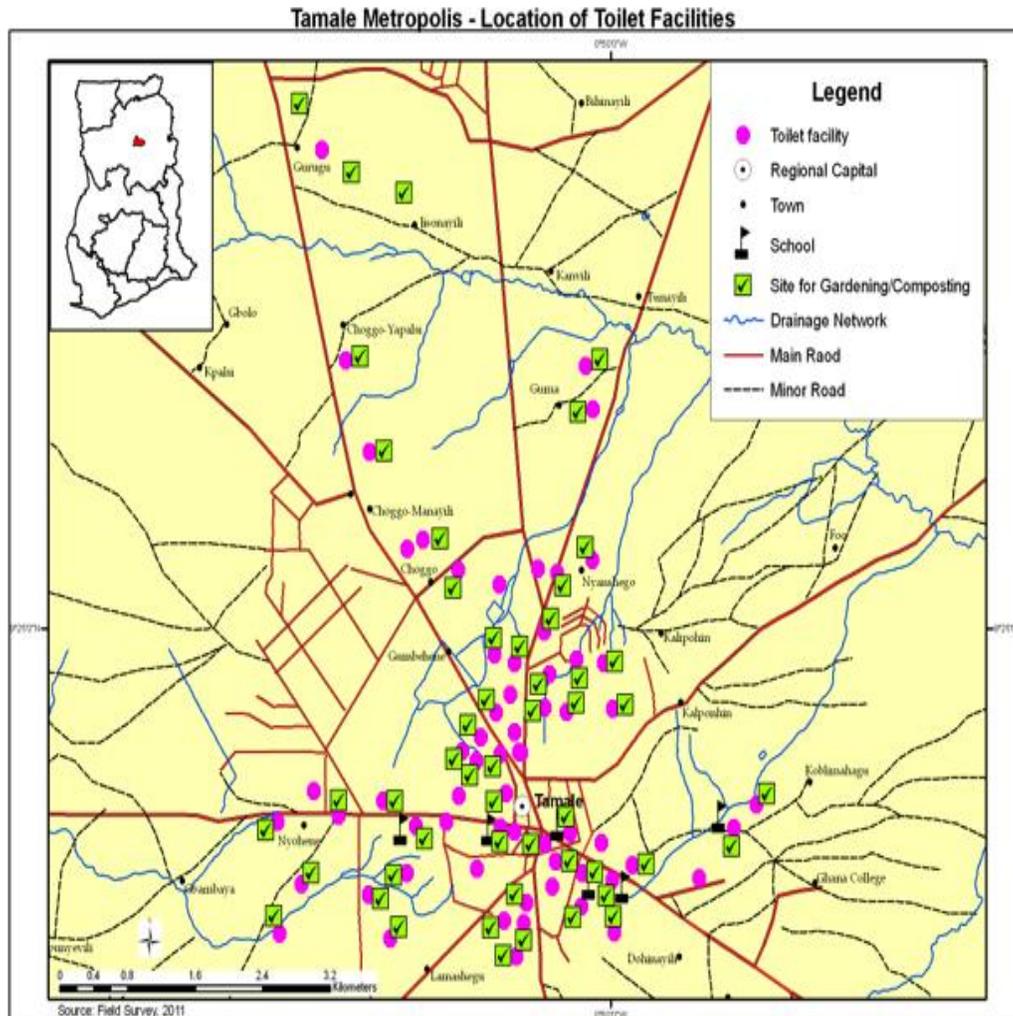


Note: R. Tetteh, G. Kranjac-Berisavljevic, Gandaa, B. Z., Ghanyu, S. A, and van Veenhuizen, R. (2014). Land Use Planning for Sustainable Development. Public toilets in Tamale, Northern Ghana, current situation and prospects for the future. This figure was presented at the annual Harmattan School of the University for Development Studies conference "Sanitation, Health Communication and National Development," February 2015.

While deliberators were willing to ban untreated waste water for gardening they were very interested in supporting other solutions for water that could support farming. For the proposal: "Promote a low cost treatment of waste water for farming through the use of charcoal and stones" the results showed an increase from

7.77 to 8.36 (p=.0003). And to conserve water, "promote the use of drip irrigation" an increase from 8.44 to 9.01 (p=.0003).

They were also interested in other sources of clean drinking water: "Provide water tanks for rain water harvesting in all educational institutions" increased from 8.85 to 9.35 (p=.0000). The same question for residential facilities increased from 8.80 to 9.20 (p=.006).

Some empirical premises shed light on the reasoning: "Providing water tanks for setting up rain water harvesting systems would ensure people availability for more good quality water" increased from 8.55 to 9.04 (p=.007). And, "treating waste water for farming would allow people to use good quality water for drinking" increased from 7.75 to 8.81, an increase of more than a full point 1.06 (p=.000).

Note that these proposals are all on the *important* side of the scale. We are effectively using the range from 5 to 10. In this context a half point shift is a large one (a tenth of the whole effective range) and a shift of a full point is really large (20% of the effective range of the scale). So, the increases are not only strongly significant, they are also large substantively.

Table 1 shows all the changes as well as the priority rankings for all the proposals, before and after deliberation.

### Table 1: All Proposals After Deliberation with Ranking Post and Pre Tamale Deliberative Poll – Pre and Post Deliberation

Note: All questions are on a 0 to 10 scale, where 0 is extremely unimportant and 10 is extremely important.

| Rank Post DP | Rank Pre DP | Question | Pre | Post | Post-Pre | Sig. |
|---|---|---|---|---|---|---|
| 1 | 1 | Promote public education for effective cholera control | 9.46 | 9.71 | 0.25 | 0.001*** |

| Rank Post DP | Rank Pre DP | Question | Pre | Post | Post-Pre | Sig. |
|---|---|---|---|---|---|---|
| 2 | 7 | Implement a systematic plan to control mosquitoes | 9.09 | 9.52 | 0.43 | 0.001*** |
| 3 | 4 | Ensure regular desilting of gutters | 9.24 | 9.51 | 0.27 | 0.005** |
| 4 | 3 | Intensify the hand washing campaign in schools | 9.26 | 9.51 | 0.25 | 0.008** |
| 5 | 2 | Promote the use of environmentally-friendly toilets in all houses | 9.27 | 9.48 | 0.21 | 0.052 |
| 6 | 5 | Promote the use of environmentally-friendly toilets in all institutions | 9.24 | 9.44 | 0.2 | 0.059 |
| 7 | 17 | Encourage communities to use organic materials in agriculture such as composting | 8.79 | 9.39 | 0.6 | 0.000*** |
| 8 | 12 | Provide water tanks for setting up rain water harvesting systems in all educational institutions | 8.85 | 9.35 | 0.5 | 0.000*** |
| 9 | 8 | Build the capacity of local institutions such as the School of Hygiene to promote | 8.97 | 9.35 | 0.38 | 0.001*** |

| Rank Post DP | Rank Pre DP | Question | Pre | Post | Post-Pre | Sig. |
|---|---|---|---|---|---|---|
| | | good hygiene and sanitation practices | | | | |
| 10 | 14 | Promote maximum use of local foods | 8.82 | 9.33 | 0.51 | 0.000*** |
| 11 | 6 | Construct and maintain gutters | 9.23 | 9.32 | 0.09 | 0.378 |
| 12 | 20 | Provide technology training for food storage | 8.64 | 9.25 | 0.61 | 0.000*** |
| 13 | 18 | Provide appropriate storage facilities for farming | 8.71 | 9.2 | 0.49 | 0.000*** |
| 14 | 16 | Provide water tanks for setting up rain water harvesting systems in residential facilities | 8.8 | 9.2 | 0.4 | 0.006** |
| 15 | 19 | Set up sewage treatment plants for managing solid and liquid waste | 8.69 | 9.19 | 0.5 | 0.001*** |
| 16 | 11 | Intensify the behaviour change communication campaign to improve hygiene and sanitation | 8.86 | 9.18 | 0.32 | 0.017* |
| 17 | 9 | Encourage media houses to allocate weekly airtime for | 8.9 | 9.16 | 0.26 | 0.042* |

| Rank Post DP | Rank Pre DP | Question | Pre | Post | Post-Pre | Sig. |
|---|---|---|---|---|---|---|
| | | water, hygiene and sanitation information | | | | |
| 18 | 25 | Encourage a Public-Private-Partnership to convert waste to energy | 8.55 | 9.15 | 0.6 | 0.000*** |
| 19 | 13 | Provide the most vulnerable with treated bed nets at a low price | 8.85 | 9.14 | 0.29 | 0.109 |
| 20 | 10 | Provide more opportunities for the most vulnerable to buy insect treated bed nets at a low price | 8.89 | 9.11 | 0.22 | 0.097 |
| 21 | 22 | Train people to prepare nutritious foods using local food items (millet, groundnuts) | 8.61 | 9.1 | 0.49 | 0.000*** |
| 22 | 27 | Ban the use of untreated waste water for gardening | 8.53 | 9.09 | 0.56 | 0.004** |
| 23 | 15 | Provide timely extension services for farming | 8.82 | 9.04 | 0.22 | 0.094 |
| 24 | 33 | Promote the cultivation of fonio and other neglected nutritious local crops | 8.05 | 9.02 | 0.97 | 0.000*** |

| Rank Post DP | Rank Pre DP | Question | Pre | Post | Post-Pre | Sig. |
|---|---|---|---|---|---|---|
| 25 | 29 | Promote the use of drip irrigation | 8.44 | 9.01 | 0.57 | 0.001*** |
| 26 | 30 | Promote the use of carrier bags made of biodegradable materials | 8.14 | 8.97 | 0.83 | 0.000*** |
| 27 | 31 | Promote training for households and community groups to set up **backyard poultry farms** | 8.11 | 8.93 | 0.82 | 0.000*** |
| 28 | 23 | Promote the setting up of irrigation facilities adapted for urban settings such as using boreholes, wells and dugouts | 8.58 | 8.88 | 0.3 | 0.069 |
| 29 | 24 | Promote the sorting of waste by all institutions | 8.58 | 8.86 | 0.28 | 0.091 |
| 30 | 21 | Ban the setting up of vegetable farms within 100m of toilet facilities | 8.62 | 8.8 | 0.18 | 0.358 |
| 31 | 26 | Provide timely weather forecasting information for farming | 8.55 | 8.79 | 0.24 | 0.114 |
| 32 | 32 | Promote food fairs to encourage the | 8.08 | 8.65 | 0.57 | 0.001*** |

| Rank Post DP | Rank Pre DP | Question | Pre | Post | Post-Pre | Sig. |
|---|---|---|---|---|---|---|
| | | consumption of local foods | | | | |
| 33 | 28 | Promote the segregation of household waste by providing waste bins | 8.46 | 8.65 | 0.19 | 0.328 |
| 34 | 34 | Promote access to credit for urban farmers through the Common Fund | 7.89 | 8.46 | 0.57 | 0.005** |
| 35 | 36 | Promote a low cost treatment of waste water for farming through the use of charcoal and stones | 7.77 | 8.36 | 0.59 | 0.003** |
| 36 | 39 | Promote training for households and community groups to set up **backyard gardens** | 7.14 | 8.34 | 1.2 | 0.000*** |
| 37 | 38 | Promote access to information on credit opportunities for livelihood activities | 7.57 | 8.26 | 0.69 | 0.002** |
| 38 | 35 | Promote the setting up of village savings and loans associations | 7.8 | 7.99 | 0.19 | 0.392 |
| 39 | 37 | Promote the setting up of a mobile phone platform for | 7.71 | 7.65 | -0.06 | 0.750 |

| Rank Post DP | Rank Pre DP | Question | Pre | Post | Post-Pre | Sig. |
|---|---|---|---|---|---|---|
| | | providing information to farmers | | | | |
| 40 | 40 | Ban the use of plastic carrier bags in the city | 6.79 | 7.64 | 0.85 | 0.001*** |

Note: *=<.05, **=<.01, ***=<.001; the p-values are two-tailed.

## Policy Priorities

There are two ways of looking at the quantitative results of the Deliberative Poll. First, one can look at how opinions change when people deliberate and really think about the issues. As noted earlier, the overwhelming majority of the policy proposals, 28 out of 40, changed significantly with deliberation (satisfying criterion 6). Second, one can look at the highest rated proposals at the end of the day, whether they changed or not. Before deliberation, one might rate a proposal highly but one is unlikely to have thought about all the arguments for and against it in any depth. Further one is unlikely to have thought about how the arguments in favor of a given proposal compare to the arguments for other proposals. After a weekend of deliberation, a respondent has had the opportunity to really consider the competing options and the arguments for and against them. Hence if the proposal is still rated highly, it reflects a kind of considered judgment. It is an opinion that has been tested against the arguments on the other side, as well as the competing arguments for other priorities. It is thus worth looking at the top proposals regardless of how much they changed.

Eight of the top ten proposals reflect the high priority participants put on fighting disease, via better sanitation, hygiene and efforts to combat malaria. We saw earlier that when faced with the difficult choice between disease and food security, they opted for fighting disease, as with the support for banning untreated waste water for gardening even if it might endanger food security. The top proposals included promoting education for effective cholera control, implementing a systematic plan to control mosquitoes, intensifying the hand washing campaign in schools, ensuring the regular desilting of gutters (which eliminates pools of water that can breed

mosquitoes), promoting the use of environmentally friendly toilets, building the capacity of local institutions to promote good hygiene and sanitation practices and providing rain water harvesting for the schools.

Table 1 shows all the changes of opinion on the policy proposals as well as their comparative rankings both before and after deliberation. 18 out of 40 proposals change their rankings by 5 or more positions with deliberation. Rankings of the proposals change, not only because people think about the purposes they would serve, but also about practical issues about their effects. However, the differences on the 0 to 10 scale between the proposals are small as most of the proposals are held by the participants to represent urgent priorities, either for fighting disease or securing food security. Still, the priorities as well as the empirical premises, show a coherent picture of what they most want to accomplish after they have engaged with the policy arguments in an evidenced based manner (criterion 4).

## Knowledge

Did they learn anything? One simple way to assess is to ask some multiple choice knowledge questions before and after deliberation. Table 2 reports the results of a short battery of such questions. The percentages indicate the percentage of correct answers on multiple choice questions. All five of the knowledge questions showed significant increases, as did the index for knowledge (constructed from the five questions which asked for participants' knowledge of facts pre- and post-deliberation.). The index increased significantly from 25.1% to 37.5% an increase of more than 12 points (p=.000). Some of the gains were large. For example, on which disease is the biggest killer in Ghana, 31% answered malaria correctly before deliberation and this increased to 46.5% after deliberation (p=.000). Before deliberation, only 21.6% knew that the percentage of Tamale with access to potable water daily was about 40%. After deliberation, the percentage correctly answering this question rose significantly to 37.6%, an increase of 16 points (p=.000). While the project only had room for a limited battery of knowledge questions, the results strongly suggest that the representative sample became more informed (evidence for criterion 5).

**Table 2: Tamale Knowledge Changes – Pre and Post Deliberation**

Note: The table shows gains in knowledge after deliberation. The index in the last row shows the overall gains for the five questions.

| Question (% correct) | T1 | T2 | T2-T1 | Sig. |
|---|---|---|---|---|
| Q42. Which of the following is true about Tamale? ANSWER: E. Tamale has a higher percentage of people who are not working than any other city in Ghana. | 24.1 | 33.5 | 9.4 | 0.018* |
| Q43. Which of the following diseases is the biggest killer in Ghana? ANSWER: C. Malaria | 31.0 | 46.5 | 15.5 | 0.000*** |
| Q44. How much more densely populated is Tamale compared to the Region? ANSWER: D. about twelve times | 8.6 | 24.5 | 15.9 | 0.000*** |
| Q45. Which percentage of Tamale has access to potable water daily? ANSWER: B. about 40% | 21.6 | 37.6 | 16.0 | 0.000*** |
| Q46. Which of the following statements is TRUE? ANSWER: C. About 20% of the population use open drains, private toilets with fee, and/or open defecation. | 40.0 | 45.3 | 5.3 | 0.205 |
| **Index** | **25.1** | **37.5** | **12.4** | **0.000*** |

Note: *=<.05, **=<.01, ***=<.001; the p-values are two-tailed.

## Small Group Analyses: Inequality

Another challenge to the idea of applying deliberative democracy to low literacy populations in Sub-Saharan Africa is the idea that the participants will be dominated by the more educated or by those with higher status. This issue is a commonly expressed concern of political theorists reacting to the jury literature (Sanders, 1997; Young, 2000). It found confirmation in the one study, apart from Deliberative Polling, that attempted to apply "deliberative democracy" in Sub-Saharan Africa—a study with self-selected samples and unstructured moderation in São Tomé and Príncipe (Humphreys, Masters, & Sandbu, 2006).[5] This worry might be thought to apply especially to deliberations in sub-Saharan Africa with

---

[5] They found that opinion leadership had a major effect on the results of deliberations in self-selected samples with unstructured moderation in one of the few applications of "deliberative democracy" in Africa.

low literacy populations who might be more easily dominated by the more advantaged members. We can explore this issue in the Ghana Deliberative Poll by looking at the distribution of support for the policy options before and after deliberation. If the higher status or more advantaged participants were dominating the others, one would expect the deliberators to systematically move in the direction of the positions favored by the more advantaged people as they successfully imposed their views on the others or as the others deferred to their views. We can look at the mean positions on the issues in each small group before and after deliberation and see if their movements conform to this pattern. Such a result would be disturbing to advocates of deliberative democracy as it would imply that the resulting opinions were not so much a result of deliberation on the merits but rather a result of the higher status or more advantaged people imposing their views. Habermasian aspirations to realize the "unforced force of the better argument" would have been stymied by social coercion (Habermas, 1996).

Table 6 offers a simple diagnostic to explore if such a pattern took place. The 40 policy options have been combined for simplicity into 19 indices (details in Appendix Table F). In each of the 15 small groups, we look at the initial mean positions of the more advantaged on each of the 19 indices. Do the groups move in the direction favored by the more advantaged or away from those positions? If the advantaged were dominating the deliberations, one would expect there to be a movement toward their views an overwhelming percentage of the time. In fact, as shown in Table 6, the groups move toward the positions favored by the males only 43% of the time, they move toward the positions favored by the higher educated only 54% of the time, and toward the positions favored by those over fifty years old, only 50% of the time. Around half the time or more they move in the other direction, away from the positions favored by the more advantaged. These results suggest that the changes were not the result of the highly advantaged dominating and hence distorting the results by imposing their views on the rest of the members of their small groups. Rather they conform to the picture we will see from the transcripts and the regressions that the participants were grappling with the merits of the issues. Sometimes those merits took them in the direction favored by the advantaged and sometimes not. But there was no pattern of consistent movement in the directions favored by the more advantaged, hence satisfying criterion 7.

## Table 6: Inequality in the Small Groups

| Index | Proportion of groups moving towards the initial mean position of the males | Proportion of groups moving towards the initial mean position of the higher educated | Proportion of groups moving towards the initial mean position of persons over 50+ years old |
|---|---|---|---|
| 1. Promoting Agriculture | 0.333 | 0.500 | 0.500 |
| 2. Financial Opportunities | 0.333 | 0.583 | 0.500 |
| 3. Water Supply | 0.533 | 0.417 | 0.538 |
| 4. Food Security | 0.533 | 0.667 | 0.429 |
| 5. Local Foods | 0.333 | 0.500 | 0.500 |
| 6. Plastic Bags | 0.267 | 0.583 | 0.571 |
| 7. General Public Hygiene Education | 0.667 | 0.667 | 0.643 |
| 8. Public Health Education on Waste Sorting | 0.333 | 0.417 | 0.571 |
| 9. Eco-friendly Toilets | 0.400 | 0.750 | 0.500 |
| 10. Banning vegetable farms near toilets | 0.467 | 0.333 | 0.571 |
| 11. Banning untreated waste water for gardening | 0.400 | 0.333 | 0.357 |
| 12. Promoting drip irrigation | 0.333 | 0.417 | 0.357 |
| 13. Promoting irrigation facilities | 0.267 | 0.333 | 0.500 |
| 14. Fighting Malaria | 0.600 | 0.667 | 0.429 |

| | | | |
|---|---|---|---|
| 15. Mosquito Support for Most Vulnerable | 0.533 | 0.444 | 0.583 |
| 16. General Public Health Education | 0.400 | 0.500 | 0.357 |
| 17. Setting up sewage treatment plants | 0.467 | 0.750 | 0.714 |
| 18. Encouraging PPPs | 0.600 | 0.833 | 0.571 |
| 19. Encouraging organic materials in agriculture | 0.400 | 0.583 | 0.429 |
| Average | 0.432 | 0.541 | 0.506 |

## Participant Reasoning

The 208 deliberators were randomly assigned to 15 small groups led by trained moderators over the two days. These small groups deliberated in depth on the issues and formulated questions for the plenary sessions with competing experts. The moderators, graduate students of the University for Development Studies who knew the local language, were trained to facilitate the discussion but not to offer any hint of their own positions on the issues. The process alternated these small group discussions with plenary sessions in which competing experts responded to questions agreed on in the small groups. All the small groups were taped and transcribed. Excerpts from the small group discussions shed light on the reasoning of participants in responding to the pros and cons of the various proposals. This qualitative data adds to the quantitative results discussed earlier. Appendix Table D shows excerpts from the small group discussions on selected policy proposals which changed significantly. We will summarize in what follows.

"Promote training for households and community groups to set up backyard poultry farms" increased from 8.11 to 8.93 a substantively large increase significant at the .000 level (question 1 in Table C). Participants saw the value of the poultry farms and expressed a need for the training. "We don't have the technical know-how about them (poultry), the diseases and the food they eat." And, "when one raises poultry you can get meat and egg which are essential components of food. One can also save money because you do not need to go to the market and buy meat again." There are also other uses: "[Even] their droppings however is very useful because

lately our soils have lost all their fertility so if the droppings are carted they can be used to improve soil fertility."

There was an even more significant increase in how respondents viewed the importance of "training for households and community groups to set up backyard gardens" (question 2 in Table C in the appendix, an increase from 7.14 to 8.34 significant at .000). A prime argument seems to have been that backyard gardens will be safer for raising vegetables. Participants noted that if people are raising their own food "they will always make sure the crops are clean for consumption so they will be healthy." It was also noted that, "if you buy vegetables from the market you may not know if the vegetables have been watered and or washed with untreated wastewater or sprayed with chemicals." In addition, "you can sell some to give you income."

The proposal: "Encourage a public-private partnership to convert waste to energy" increased from 8.55 to 9.15 a change significant at the .000 level (question 17 in Table C). Participants realized that both disposal of waste and lack of energy were problems. The waste to energy strategy could make one problem part of the solution to the other. "If they can do it so that it can be turned into fire for cooking or electricity it would have been nice because if you observe, there are lots of toilets in Tamale." Disposal is a problem: "you can see a toilet with filled holes and they claim there is no lorry to convey it. And even if it is conveyed the place to go and dump it is a problem." Other participants noted that recycling might provide jobs and the process might provide income for the city.

Next, the proposal to "provide water tanks for setting up rain water harvesting in all educational institutions" increased significantly from 8.85 to 9.35 at the .000 level (question 5 in Table C). In the small groups, comments focused on how such water tanks would keep children in school and save money, "most of the children during break would ask that they want to drink water and they usually do not return." Also, sometimes "the students have to use our chop money to buy water for our daily use." There were also concerns expressed about "the maintenance of those facilities and how good and hygienic the water will be." But even then the water "can be used for hand washing and for the cleaning of the urinary and toilets."

The proposal: "Promote food fairs to encourage the consumption of local foods" rose from 8.05 to 8.65 a significant increase at the .001 level (question 14 in the Appendix Table C). Participants reasoned that: "it is from our local foods that we get a lot of nutrition, the *koose*, the vegetables and all." There were favorable comments on the annual Farmers Day focused on "Eat What You Grow" and the

suggestion that "the assembly should get experts in diet so they can go round and educate people on the nutritional value of the foods we cultivate."

Another proposal: "Promote the use of environmentally friendly toilets in all houses" rose from 9.27 to 9.48 an increase significant at the .05 level (question 23 in Table C). The participants supported the idea that "all houses should have toilets because you can pick up diseases from the public toilets." But all houses having toilets is hard with limited resources. One person noted: "Sometimes we don't have water to drink, not to talk of use them on flushing toilets." Water may be a factor in favor of the environmentally friendly toilets that are better for water usage.

Lastly, the proposal: "Promote a low cost treatment of waste water for farming through the use of charcoal and stones" rose from 7.77 to 8.36, an increase significant at the .003 level (question 29 in Table C). While there was some skepticism expressed about how well this would work, the participants were well aware of the benefits: "if they do it and we use the treated water to water the vegetable it will prevent us from acquiring diseases." While the water will not be good enough for drinking it will likely be healthy for farming: "so we should drink the pipe water and treat the waste water for farming."

The quest for clean water was a major subject of the deliberations and posed hard choices. See table 3 for some extended excerpts.

**Table 3: Illustrative Excerpts from Small Group Discussions on Clean Water**

| Clean Water |
| --- |
| "I think it is better for us to use very clean water to grow our vegetables. If at the end of the day the produce is little and yet I have healthy vegetables to consume that would keep me disease free, I think it is much better. Much better than a situation where they would use water from toilets to water the vegetables, get bumper harvests and yet the produce wouldn't be good for our health. Using clean water should be the way to go." |
| "It is good they ban [the use of untreated waste water for cultivation]. If we have small amount of vegetables produced from clean water, it is better than having plenty of it which can make us unhealthy" |
| "If the assembly teaches us how to do this backyard farming, they should also teach us how to use good or clean water to water the vegetables so that the crops will grow well and healthy. It is not good to water crops with dirty or untreated |

water but people are likely to use dirty water if they don't know the effect of that."

"[Having pipes installed in the home to connect water to the backyard] will be expensive but human life too is important. It takes sacrifices to do good and quality work."

"[Banning waste water for farming] will end people's jobs but is right they ban it because if they don't ban it and they use that dirty water when we eat is the diseases. We are going to eat the money that should have provided the clean water is the same money they will channel to the health sector so that the diseased food we have eaten and are now sick from is the money for providing the clean water will be used to seek cure for our health."

Another way of approaching the issue of what was motivating support or opposition to the proposals is to look at regressions connecting various explanatory variables in the questionnaire with the policy options. For this purpose, we want attitudinal items that are causally proximate to the policy options that might shed light on the considerations people see as supporting them. We will present a couple of illustrative cases here.

Table 4 shows a coherent connection between the tradeoff question about clean water and the proposed ban on waste water for gardening:

> Some people think that vegetable farms should produce as much as possible, even if they have to use the waste water from toilets (at point 0). Other people think that vegetables should only be produced with clean water, even if that means fewer vegetables are produced (at point 10).

As noted earlier, support for the clean water option increased significantly even though it would mean fewer vegetables are produced. When this question is used as an explanatory variable there is a significant connection with the proposed ban, with the adjusted R square higher after deliberation as pictured in Table 4.

**Table 4: Regression: Banning Waste Water**

Dependent Variable: Q25, "Ban the use of untreated waste water for gardening"

|  | Before Deliberation | | | After Deliberation | | |
|---|---|---|---|---|---|---|
|  | b | S.E. | Sig. | b | S.E. | Sig. |
| (Constant) | 0.534 | 0.070 | 0.000 | 0.384 | 0.068 | 0.000 |
| Q40, Vegetable farms using clean water[1] | 0.348 | 0.075 | 0.000 | 0.549 | 0.07 | 0.000 |
| Adj. R-squared | 0.089 | | | 0.229 | | |
| (p) | 0.000 | | | 0.000 | | |
| N | 208 | | | 204 | | |
| Root MSE | 0.236 | | | 0.158 | | |

[1] Scale for explanatory variable is 0 to 1, where 0 is produce as much vegetables as possible even if water is not clean and 1 is produce only with clean water even if that means many fewer vegetables are produced. The post deliberation model shows better fit with reduced root MSE and higher adjusted R-squared.

Another regression connects an index of policy options about public hygiene with basic values and goals. The public hygiene index includes media airtime for sanitation information, behavior change communication to hygiene and sanitation, hand washing campaign in schools, building the capacity of local institutions to promote hygiene and sanitation practices and promoting public education for effective cholera control. This index was significantly connected to values such as having a safe community, making sure everyone has clean air and water and having a well-educated society. Again, the adjusted R square was higher post deliberation as pictured in Table 5.

Both the transcript excerpts and the regressions provide evidence of identifiable reasons supporting the final judgments on the policy options (criterion 8).

## Table 5: Regression: Public Hygiene Education

Dependent Variable: General Public Hygiene Education Index

|  | Before Deliberation | | | After Deliberation | | |
|---|---|---|---|---|---|---|
|  | b | S.E. | Sig. | b | S.E. | Sig. |
| (Constant) | 0.334 | 0.068 | 0.000 | 0.249 | 0.071 | 0.001 |
| Having a safe community | 0.082 | 0.068 | 0.228 | 0.168 | 0.071 | 0.020 |
| Making sure everybody has clean air and water | 0.281 | 0.067 | 0.000 | 0.411 | 0.061 | 0.000 |
| Having a well educated society | 0.245 | 0.623 | 0.000 | 0.137 | 0.047 | 0.002 |
| Adj. R-squared | 0.289 | | | 0.344 | | |
| (p) | 0.000 | | | 0.000 | | |
| N | 208 | | | 205 | | |
| Root MSE | .085 | | | .065 | | |

Dependent Variable: Public Hygiene Education Index which includes:
General Public Hygiene Education Index
1. Q20: Encourage media houses to allocate weekly airtime for water, hygiene and sanitation information;
2. Q26: Intensify the behavior change communication campaign to improve hygiene and sanitation;
3. Q27: Intensify the hand washing campaign in schools;
4. Q28: Build the capacity of local institutions such as the School of Hygiene to promote good hygiene and sanitation practices;
5. Q39: Promote public education for effective cholera control

**Towards Policy Implementation**

Our last criterion (9) is that the deliberations produce considered judgments in a policy context where they are likely to be implemented. Recall that the Advisory Committee took care to formulate options that were practical and spoke to urgent current problems. There have been presentations to the community and to policy makers as well as local press coverage.

Most importantly, the results have been embraced by the key leaders of local government. The Presiding Member of the Municipal Assembly at the time of the project, commented:

> The problems of water, sanitation and food security have been long standing challenges of the Tamale area and with the increasing numbers moving into Tamale over the past decade, these problems are worsening. What has emerged from the DP is indicative of what the people of Tamale are concerned about thoughtfully. I will work with the Metro Assembly to implement key priorities such as those on water harvesting and sanitation and hygiene for basic schools. (Hon. Mohammed M. M. Andani: Immediate past Presiding Member, Tamale Metropolitan Assembly & Member of Advisory Committee, emphasis added)

After the elections, a new Presiding Member from a different party came into power. The new leader, commented after dissemination meetings and reviewing the results:

> I am convinced that the issues of sanitation, water, hygiene and food insecurity as captured in the findings report reflects the generality of the challenges and aspirations for actions of our people. We cannot ignore these, something has to be done … Once we make provision in our annual operational plans, it will be possible to set funds aside to work on sanitation, water and food insecurity aspects. (Hon. Abubakari Adam: Presiding Member, Tamale Metropolitan Assembly, emphasis added)

In other words of leaders of the Municipal Assembly, from both major parties, find the results actionable and have expressed their determination to implement the people's priorities as expressed by the DP. In a competitive democracy, such as Ghana, elections produce changes in government, but the implementation of these results is not a partisan issue and has cross-party support.

# Conclusion

The premise of this approach to deliberative consultation is that the people who must live with the policies should have a voice. That voice should be representative of the whole population and as such, deliberation should take place under conditions where people can really think about the issues in depth, get their questions answered by experts and policy makers who represent different points of view and then people can offer their views in secret ballots or confidential questionnaires so the process can collect their sincere opinions shielded from social pressures to agree with everyone else. The ultimate goal is to create a space where public opinion and public will formation can take place under fruitful conditions, even in the challenging circumstances of sub-Saharan Africa.

The picture that emerges from the data is that these goals were generally met. The sample was representative, the participants changed their views in many statistically significant ways, they did so for identifiable reasons, the results do not seem to have been dominated by the more advantaged, and the participants became demonstrably more informed. They identified specific policy solutions for identifiable reasons, policy solutions that can help address Tamale's urgent problems. Those solutions have been well received in presentations to the advisory group, to members of the local and regional government and to the major donor groups. All indications are that the process of convening the people in these deliberations has catalyzed the attention of policy makers to the needs and concerns of the people in one of the poorest regions of the country.

The deliberation in Tamale offers proof of concept for deliberation among random samples of the mass public in Africa. Deliberation is not just for philosophy seminars and it is not just for the most advanced countries. Local communities in very poor countries with low levels of education can, nevertheless, deliberate about issues affecting their interests. In this case the tradeoffs for clean water, sanitation and food security posed some hard choices that the public was fully capable of tackling to point out its preferred policy directions. Development policies around the world would be improved if decision makers went to the trouble to foster representative and informed deliberation. After all, it is the people who must live with the policies. Rather than simply impose one set of contested expert solutions rather than another, we believe it is better to achieve buy-in from the public to give the solutions legitimacy and to better understand the sources of resistance and support. There is an evident choice between deliberative and participatory methods, and the deliberative approach should not be dismissed on the grounds that it is only applicable to the most advanced and developed countries.

# References

Adetula, V. A. O. (2011). Measuring democracy and 'good governance' in Africa: A critique of assumptions and methods. In K. Kondlo, & C. Ejiogu (Eds.), *Africa in focus: Governance in the 21st century* (pp. 10-25). Cape Town, South Africa: Human Sciences Research Council Press.

Agyemang, E. O. (2014, November 2). My right my future community Durbar, Gomoa Nyanyano. *Modern Ghana.* Retrieved from https://www.modernghana.com/news/578506/my-right-my-future-community-durbar-gomoa-nyanyano.html

Bohman, J., & Rehg, W. (Eds.). (1997). *Deliberative democracy: Essays on reason and politics*. Cambridge, MA: MIT Press.

Dryzek, J.S. (2002). *Deliberative democracy and beyond: Liberals, critics, contestations*. Oxford, UK: Oxford University Press.

Elster, J. (Ed.). (1998). *Deliberative democracy*. Cambridge, UK: Cambridge University Press.

Fishkin, J. S., & Laslett. P., (Eds.). (2003). *Debating deliberative democracy*. Oxford, UK: Blackwell Publishing.

Fishkin, J. S. (2018). *Democracy when the people are thinking: Revitalizing our politics through public deliberation*. Oxford, UK: Oxford University Press.

Fraser, N. (1992). Rethinking the public sphere: A contribution to the critique of actually existing democracy. In B. Robbins (Ed.), *The phantom public sphere* (pp. 1-32). Minneapolis, MN: University of Minnesota Press.

Freedom House. (2016). *Ghana freedom house report.* Retrieved from https://freedomhouse.org/report/freedom-world/2016/ghana.

Gronlund, K., Bachtiger, A., & Setälä, M. (Eds.). (2014). *Deliberative mini-publics: Involving citizens in the democratic process*. Colchester, UK: ECPR Press.

Habermas, J. (1996). *Between facts and norms*. W. Rehg (Ed.). Cambridge, MA: MIT Press.

Hardin, R. (1999). Deliberation: Method, not theory. In S. Macedo (Ed.), *Deliberative politics: Essays on democracy and disagreement* (pp. 103–119). Oxford, UK: Osford University Press.

Humphreys, M., Masters, W. A., & Sandbu, M. E. (2006). The role of leaders in democratic deliberations: Results from a field experiment in São Tomé and Príncipe. *World Politics, 58,* 583–622. doi:10.2307/40060150

Lupia, A. & Norton, A. (2017). Inequality is always in the room: Language & power in deliberative democracy. *Daedalus, 146*(3), 64-76. doi:10.1162/DAED_a_00447

Ofori-Ansa, K., & Pipim, P. (1997). *Festival of American folklife program book; Celebrations in African immigrant communities: Nature & significance of Durbar in Ghanaian societies.* Retrieved from https://folklife.si.edu/resources/festival1997/durbar.htm

Osei, A. (2015). Elites and democracy in Ghana: A social network approach. *African Affairs, 114,* 529–554. doi:10.1093/afraf/adv036

Pateman, C. (2012). Participatory democracy revisited. *Perspectives on Politics, 10*, 7–19. doi:10.1017/S1537592711004877

Rosenberg, S. (Ed.). (2007). *Can the people govern*. New York, NY: Pelgrave.

Sanders, L. (1997). Against deliberation. *Political Theory, 25,* 347-376. doi:10.1177/0090591797025003002

Sen, A. (1999). *Development as freedom*. New York, NY: Anchor Books.

Stiglitz, J.E. (2002). Participation and development: Perspectives from the comprehensive development paradigm. *Review of Development Economics*, *6,* 163–182. doi:10.1111/1467-9361.00148

United Nations. (2015) *UN sustainable development goal (SDG) 16 – importance of participatory institutions & policymaking.* Foundation for Democracy and Sustainable Development. Retrieved from http://www.fdsd.org/ideas/sustainable-development-goal-sdg-16-democratic-institutions/

World Bank. (2003). *Toward country-led development: A multi-partner evaluation of the comprehensive development framework--synthesis report.* Retrieved from https://openknowledge.worldbank.org/handle/10986/15080.

World Bank. (2008). Brazil: Toward a more inclusive and effective participatory budget in Porto Alegre (Vol. 2), *2 (40144),* 1–106. Retrieved from

http://documents.worldbank.org/curated/en/460281468017039278/pdf/40144
0v20ER0P01sclosed0March0302008.pdf

Young, I. M. (2000). *Inclusion and democracy.* Oxford, UK: Oxford University
Press.

Young, I. M. (2003). Activist challenges to deliberative democracy. In J. Fishkin,
& P. Laslett (Eds.), *Debating deliberative democracy* (pp. 102-120). Oxford,
UK: Blackwell Publishing