The Gains and Losses of Local Participation in Stove Projects: Insights from the Field

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Introduction

For centuries, people the world over have relied on fuel wood and other biomass sources to meet their cooking and heating energy needs. In the eighteenth and nineteenth centuries, modern fuels – initially coal, then gas, then oil – gradually replaced fuel wood as the main source of energy supply in industrialised countries (Schwartz Cowan 1987). However, the poorer countries of the South have taken much longer to make the same kind of transition, and to date, more than 70 percent of the population in these countries still rely heavily on fuel wood to meet their energy needs.

In the 1950s, experts from the international community recognised the threat of deforestation posed to the environment by the intensive wood-gathering patterns prevalent in developing countries which would in turn lead to severe environmental hazards if unchecked. The situation thus assessed, expert institutions leapt to the rescue with a logically derived remedial measure: improved cook stoves that would burn fuel wood more efficiently and hence reduce the quantity of wood required for their use. This solution, seen by the ‘experts’ as a rational and straightforward one, was deduced in ignorance of the complex cultural contexts out of which the problem emerged.

Indeed, the earliest attempts by expert-led development institutions at promoting improved stoves were characterised by a general failure to recognise and incorporate lay perspectives into project planning and implementation. Three decades after the institutionalisation of development in the 1950s, ‘outsider’ development agencies, disillusioned with the unsustainable outcomes of such projects, began to vigorously consider alternatives to the top-down implementation approaches they had hitherto been employing (Guijt et al. 1998). The focus of this drive was on understanding and respecting insider/local knowledge, to rectify the dominance of outsider/western scientific knowledge in project implementation. By the early 1990s, the activity had grown into a global frenzy, and ‘participatory’ had become the new synonym for ‘good’ or ‘sustainable’ development.

Today, participatory development has come to be associated with the central message of power and change (Cornwall 1998). Its self-professed aim is to increase the involvement of socially and economically marginalised people in decision-making over their own lives (Guijt et al. 1998), i.e. to bring about their empowerment. As Parpart et al. (2002) note, ‘to empower’ is an action verb that suggests the ability to change the world and overcome opposition. It has a transformatory sound, an implicit promise of change, often for the better (Ibid.). In reality however, for a process that promises so much, so little is being delivered. Take the case of improved stove projects. Following the initial unsuccessful top-down phase of the 1950s, many stove agencies changed tack and invited greater user participation in design and implementation processes from the 1980s upwards. Notwithstanding agencies’ efforts to reflexively refine the participatory methods employed over the years, the stoves have not gained widespread acceptance and diffusion amongst users, and the wider goal of people empowerment is still far from sight.

This evidence of failure to deliver as promised invites us to closely scrutinise the processes involved in mobilising user participation. Like the top-down methods they were devised to replace, participatory methods embody working principles and assumptions about both society and individuals, even if these are rarely expressed or even acknowledged (Irwin et al. 2003, Stirling 2005). As Irwin et al. (2003) asserts, resolution of the lay-expert conflict in the techno scientific domain does not end with an acknowledgement of the public’s significance – rather, it only begins. Proponents of user participation claim to act on behalf of ‘the people’, but who exactly are these people and how are their views to be taken into account? How are decisions made as to which population, and what information is relevant (Massimiano and Neresini 2008)? Who initiates participation and who sets the agenda?

These were the questions I attempted to answer through the field study I conducted of the Upesi stove project in Kenya from November to December 2009. A brief description of the project follows, after which I present some preliminary observations I have made in the course of my ongoing data analysis.

The Upesi Stove Project, Kenya

Description: Bottom-up, Rural, Development oriented

Implementing organisation: Upesi stoves have been promoted on a rolling basis in rural Kenya since the early nineties by a UK-based international development organisation1. The organisation is accountable to the various donor agencies that provide funding for the Upesi project. As such it prioritises efficient management of its resources in working to meet the stove distribution and smoke reduction targets stated at the outset of the project.

1 For confidentiality purposes, specific names have been withheld in this report. The organisation in question is referred to as ‘the organisation’, ‘the implementing organisation’ or ‘the stove development organisation’ throughout this document.
The organisation started out in 1966 with the explicit aim of using appropriate technology as a tool for alleviating chronic poverty in rural areas of developing countries. Decades of experience in host communities of developing countries has however made the organisation realise that technology... is only half the story\textsuperscript{2}. As such its programmes now contain elements intended to affect social, economic and political change within the local environments in which they seek to introduce appropriate technology.

**Technology development:** The clay liner component of the stove was developed locally by technical staff of the organisation, using materials cheaply available in the locality of users. Upesi stove liners have always been, and continue to be manufactured and installed in users’ kitchens by groups of local artisans, the majority of whom are women.

**Stakeholder network:** At the very top of the stakeholder pyramid are the donor institutions that make the funds available to implement successive phases of the Upesi project. The priority areas of these donor institutions shift over time, so that the implementing organisation cannot rely on any one source for continued funding of the project. Partner development organisations with a similar focus give technical assistance on the project as and when needed. The national government is not directly involved with the project. Upesi stove enterprises tend to be small to medium scale businesses yielding modest profit margins, run by community-based women groups in rural areas and established \textit{jua kali}\textsuperscript{3} in urban areas.

**Implementation and dissemination model:** Project staff train local groups in stove manufacture and provide some logistic support toward the establishment of local supply chains for marketing and sales of the stoves. Once a stove project has been established in a particular location, the women groups and \textit{jua kalis} in the region are expected to ‘own’ the enterprise and expand it as far as is possible for them to do.

![Figure 1](image1.png) The traditional three-stone fireplace (far corner) has been used to cook for generations in rural kitchens in developing countries.

![Figure 2](image2.png) The Upesi improved stove basically consists of a clay liner inserted in a mud surround. Due to the heat retention capacity of the clay, the stove uses about 50% less firewood than the three-stone fire per cooking activity. Further, its enclosed design ensures that it emits far less smoke than the traditional open fire.

**Approaching Analysis**

My analysis will scrutinise the Upesi project for the purpose of shedding light on certain assumptions that are made regarding its popular status as a participatorily developed bottom-up project. This line of enquiry was prompted by the realisation that some of the theories of participation that I developed earlier from my review of the literature on the Upesi project do not quite align with some of the observations I made on the field.

The first and main point of contact that the implementing organisation typically has with stove project communities is with the few women groups that are selected from amongst the scores of possible groups in the community to participate in stove production training. Members of each selected group are then required to further narrow down the opportunity window, so that in a group of about twenty five women, only two or three individuals are ‘put forward’ by the group to participate. This kind of restricted selection automatically leaves out the vast majority of ‘qualified’ citizens in a given community, those who are both willing and able to be involved in such a programme. According to the project implementers, it is practically expedient to employ such selection methods: the organisation simply does not have sufficient human and financial resources to train everyone who might want to participate in a stove project, and community-wide participation will likely produce a critical mass of stove producers which will result in excess stove supply relative to local demand.

\textsuperscript{2} Practical Action (undated) \textit{The Upesi Stove for Households in Kenya}, Practical Action Publishing

\textsuperscript{3} \textit{Jua kali} literally means ‘hot sun’. The term is used to refer to metal workers or, more generally, anyone who works (mostly outdoors) at a menial job on a casual basis - for example, day labourers working on construction sites.

Panel Presentation: Energy

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Nevertheless the participation platform remains uneven, and this has implications for what the Upesi project realistically achieves on the ground. Questions arise as to the validity of selection criteria for the women and groups that participate in the first instance, and the impact this has on the equal distribution of empowerment opportunities. The stove development organisation hinges its implementation model on the expectation that group members who participate in the original training sessions will disseminate information regarding production, marketing and use of the stoves to other people in their groups and communities. In my analysis, I will be examining how this model of information flow actually works in practice in Upesi project communities.

The actual content of local participation is another element of the Upesi project that invites close scrutiny. My work on the field afforded me some insight into what ‘technical’ participation in Upesi projects actually entails. Contrary to the suggestion in the literature that stove development agencies have invited greater local participation in design and implementation processes from the 1980s upwards, participation in the Upesi project is really limited to attendance of a few training sessions in which participants are instructed in the manufacture of a proven technology and trained in basic marketing skills to enable them sell the technology. The actual input of local citizens in terms of actual product design and process planning, for instance, is minimal. The flow of knowledge and information in this situation certainly appears unidirectional. A detailed examination of the status quo will aid our understanding of why the lengthy history of participation in the Upesi project has delivered relatively little by way of citizen empowerment, and how the propensity for local contribution might be increased.

Another assumption that I intend to investigate is that people in a stove project community will value participation in the same form and for the same reasons that development organisations invite it. In line with the recommendations of the World Commission on Environment and Development in its 1987 Our Common Future report, I proposed, pre-fieldwork, that a broadening of the roles of project beneficiaries to encompass agenda-setting and decision-making could be the key to attaining more empowering outcomes in participatory stove projects. This kind of involvement however may not be so straightforward to achieve in light of the realities on the ground. The reality of subsistence living creates conditions which necessitate a consideration of the short-term priorities of the people, priorities which accrue into the values that they espouse in the long-term.

Presently, participation in the Upesi project tends to be ‘demand-driven’ (Chavangi 1995) to the extent that local women groups are generally motivated to participate optimally in the presence of enabling conditions set up by project sponsors. The experience on the project has been that when such conditions are withdrawn, interest and participation levels drop significantly. This leads us to the question: within the economic, social and cultural realities that people live, do we know that they really want to take on the responsibilities of political participation that we are claiming on their behalf? Further, there are indications in the data that individuals, groups and communities sometimes have their ways of legitimising non-empowering forms of participation in projects. It will be the task of my analysis to validate or reject this suggestion and consider how that might indicate what is practically possible to achieve on a stove project.

If people’s lived realities really do play a major role in shaping the content and character of participation on the Upesi project, then perhaps it is not practical for the project to try to address the issue of household energy use in isolation from the complex web of economic, social and cultural factors that engendered ‘inefficient’ fuel wood burning in the first place. Issues of poverty and food insecurity are but a few of the pieces in a holistic picture from which it will be difficult to extricate any one issue such as fuel wood use. Consequences such as environmental degradation and health deterioration are technically-defined problems that can be better understood rooted in the wider context of the totality of people’s existence. From this point of view, the fuel wood crisis is not necessarily an energy, environmental, or health problem. It cannot be given any unilateral definition. The finding that local people mostly accepted the Upesi stove for different reasons than those originally provided by the implementing organisation raises questions regarding how this model of information flow actually works in practice in Upesi project communities.

The literature on citizen participation proposes that a repoliticisation of the theory and practice of participation is essential to achieving the desired end of citizen empowerment. According to this school, participatory approaches to development have largely ignored the complexities of power and power relations that play out in development situations. In response therefore, citizenship theories advocate recognition of the rights of local citizens to be involved in decision-making and governance processes that affect their community. It is however important to note that this approach is outward-looking, i.e. it largely focuses on the relationship between local communities and the state, and it is modelled on assumptions of democratic expressions of citizenship. It rarely pays detailed attention to the internal ‘politics of participation’ (Leach et al. 2005) such as those that play out everyday within and amongst the groups and individuals that are involved in the Upesi project.

Within stove communities, it is possible to see how indigenous enactments of identity, membership and citizenship can impact positively or negatively on who gets to participate and who consequently gets the opportunity to be empowered. For instance, in one of the Upesi communities where I worked, the potential for widespread acquisition of clay-working skills was initially threatened because six of the seven members of the community’s only clan of potters were averse to the idea of having to share their age-long traditional skills with non-clan members. In the same community, widows are customarily relegated to a lower social status than married women, and I observed that this places a restriction on the sense of freedom some of the women have to avail themselves of the financial empowerment opportunities presented to them by the Upesi stove enterprise. Interestingly, dynamics within participating women groups sometimes serve to reinforce inequalities such as these. I will explore these dynamics as I undertake a comprehensive inward-looking analysis of the politics of participation that unfold everyday amongst citizens of stove communities.
Conclusion

In light of the contentious issues raised above, the overarching question my thesis will go on to answer is this: how more ‘bottom-up’ than traditional top-down stove development projects is a participatory project like the Upesi? The next step is to undertake critical in-depth analysis and interpretation of the field data I’ve gathered to date. This will generate results that are expected to inform future participatory development policy and practice in developing countries.

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References


