Innovation, "technology transfer," and positive social change: Models & realities of transformation

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Introduction

Gerard Prunier and Eloi Ficquet have recently observed that "Ethiopia is engaged in such a frantic race towards modernity that both its successes and its failures are being constantly added to" (2015: 14). Of the picture beyond the cities, Svein Ege has argued that "the Ethiopian peasant economy is in transition", and that "there is no going back" (2015). The foregoing chapters of this book have considered different aspects of this headlong and multiple process of change as it has been experienced and reconfigured by members of the 20 communities studied by Ethiopia WIDE: looking either at specific sectors of changing practice and service delivery (for instance in maternal, child and sexual health or education); at specific demographic or socio-economic groups (young people, the economically successful, women); at particular processes and experiences (urbanisation, migration); or at a combination of several of these aspects. This last thematic chapter examines data created during the third round of research (WIDE 3) conducted between 2010 and 2013 in order to focus on some of the underlying models and drivers (or inhibitors) of transformation as they were experienced, invented and reconstituted in the 20 communities at that time.

The chapter synthesises thinking from two WIDE Discussion Briefs, which were prepared in 2014 (on models and realities of governance for transformation)[1] and 2016 (on innovation, learning and technology transfer),[2] as well as drawing on a number of other key resources that discuss the efficacy and constraints of Ethiopia's rural extension processes.[3] Given the breadth of the terrain, the presentation of data is designed to be illustrative rather than exhaustive. In particular, the chapter considers two closely interlinked sets of questions: the first is what the WIDE data tell us about how different members of these communities learn, innovate, and adopt new practices or technologies (or how they don't do so); the second relates to what the WIDE data tell us about how government is present in these communities, and how community members – individuals and groups - experience, respond to, and reshape what could loosely be called processes of 'governance,' in relation to extension and outreach, service delivery, and core processes of administration.

Juxtaposing state and society

A first point is perhaps to stress how and why these two questions are so closely interlinked, something that is arguably intrinsic to Ethiopia's "frantic race to modernity." Ethiopia's model of local government is conceptualised and designed from above, precisely in order to intervene to try to effect change. It is seen by its architects as focused not just on the administration or stability of the *status quo* (although, clearly, that too), but also as providing the engine driving processes of social and economic transformation in a highly interventionist "developmental state" approach. As

noted earlier, in the chapter in this volume on sexual health and wellbeing, analysis of the WIDE research conducted in 2013 indicated that as many as 103 interventions were to be found in a single community (Bevan *et al.*, 2014: 9). These interventions were intended to induce changes of behaviour and practice designed to transform existing socio-economic, education, health, and cultural norms.

The WIDE 3 community profiles document an energetic state-led trajectory of rural transformation up to the period 2010-2013, and the rapid, diverse and profound processes of change which were resulting from it in that period: many remarkably productive, rewarding, or profitable for some – perhaps even most - of those involved. Longitudinal comparisons across WIDE data are replete with notions and instances of novelty, innovation, learning and change, and clearly these processes have not occurred in a vacuum. Ethiopia has been widely praised for its innovative state-led systems of developmental outreach, particularly for instance in relation to agriculture and health (Gates, 2012)[4], and school enrolment.[5] Arguably, the period of WIDE 3 research, at the outset of the ambitious first five-year Growth and Transformation Plan (GTP I) (2010-2015), was one in which the local state and political apparatus were at their most present, visible, active and interventionist in the lives of smallholders and agropastoralists, following periods of reform of both structures at the community level between 2006 and 2008.

Nevertheless, the lived experiences captured by WIDE 3 at the micro-level demonstrate two further things: that external interventions are only a part of the picture; and that they are not always the most effective part in terms of promoting innovation. Along with state-led successes, the research also provides rich and useful evidence of independent, elusive and unpredictable community innovation and creativity; and of the range of frustrations, anxieties, tensions and grievances that come with rapid social change. As noted in the introduction to this volume, the very great value of the dataset generated by WIDE is that it advances understanding of change precisely at the level of the village microcosm, where it is experienced by citizens: telling "the stories behind the numbers"; illuminating what works and what does not; how the processes are understood, and sometimes misunderstood; and how perceptions of different people within the communities can vary dramatically about the pros and cons of "development" as undertaken by themselves, other groups of their peers and families, and their local administrators, representatives, politicians, and elders, whether individually or in concert.

This very diversity and complexity suggest the solubility or "underdetermination" of the categories of "state" on the one hand, and "community" or "society" on the other, of which analysis regularly makes binary use in explaining processes of social and political change (Mitchell, 1999). By contrast, WIDE data helps build towards a more ethnographic "thick description" of events at the micro level, suggestive of the ways in which the boundaries between "state" and "community" at the micro level are continually negotiated and renegotiated by individuals and groups, "going between" them (Dom, 2011); but also of the ways in which this continual micro-level interaction in itself constitutes and reconstitutes these categories, continually (re)establishing them (whether incrementally entrenching or shifting them) as social institutions (Barnes, 1995; Kusch, 2002).[6] Thus, although the chapter is loosely structured in two halves, looking separately at social and state-led innovation, the importance of interaction as a basis for all innovation, learning, and change runs as a theme throughout.

Interaction as a basis for knowledge, learning and change

[4] see also the chapters on maternal and sexual health in this volume
[5] see the chapter on education in this volume
[6] I am grateful to Daniel Mulugeta Gebrie, whose interesting doctoral work draws on Mitchell (1999) to point up the distinct but soluble and mutually constituted nature of state-society relations, observed through the prism of everyday mundate activities at the micro level in rural Ethiopia. Also very suggestive here is the work of Teferi Abate Adem (notably, but not only, 2004).

The discussion is strongly influenced by a social constructionist approach to social change as a function of the distribution of knowledge across a society (Vaughan & Rafanell, 2012; cf. also Barnes, Kusch *op. cit*.), closely aligned to the methodological "complexity" social science approach adopted by WIDE, and discussed in the introduction to this volume, with its stress on the importance of the fields of ideas and power. This calls for closer attention to the sociological and epistemological processes involved in changes (or reinforcement) of social norms, behaviour, culture and perceptions of interest; and interrogation of the processes by which knowledge or technology "transfer" in practice.This approach has important implications for our understanding of processes of learnng and change. The very complexity of the WIDE data indicates, for instance, that a conceptualisation of a uniform hierarchy of (governmental or other external) expertise "rolling out" new packages to animate passive recipient farmers is entirely misleading: arguably more likely to obscure than to illuminate the ways in which change occurs.

By juxtaposing evidence about autonomous community learning and innovation with patterns in the data about governance and how government operates at community level, then, the chapter also seeks to draw some tentative conclusions and consider possible policy implications about the likely efficacy, inclusiveness and scope of development interventions in effecting change. By considering the WIDE evidence for the vigour, diversity and limitations of community learning and innovation, I seek to shed light on the extent to which government activity and interventions reflect, align with, support and capitalise on these core social processes in practice; as well as some instances where the synergies are less positive. This allows one to begin to approach central underlying questions such as: how effectively extension and outreach services operate, when and why; how effectively local governmental processes and actors are embedded in and contributing to wider processes of change; and whether there may be limitations or constraints on the existing model or its implementation.

Issues in harnessing and harmonising dynamism?

This kind of analytical juxtaposition seems to be in the spirit of the theoretical model of Ethiopia's "developmental state" project at the level of its rural communities. In December 2010, Ethiopia's late Prime Minister Meles Zenawi gave an interview in which he commented on his government's determination to create a system where

"Every group, every village is able to design its own plan [… thus making] it possible for people to release their own energies, maximize the impact of their own assets in the overall framework of our plan." (2010)

The first half of the chapter highlights WIDE 3 research findings that provide abundant evidence of innovation, learning and changes of practice – precisely that "releasing of energies" - in all of the communities studied. All of these instances of innovation and change benefitted greatly from a conducive environment, but also extended well beyond the influence of government policy or intervention *per se.* I single out four areas of learning and adaptation amongst individuals and wider community networks for very brief discussion here (although of course innovation is a theme of the whole book, and many other issues have been raised in the foregoing chapters). They include: 1) instances of the impact of urban culture, linkages, mobility and modernity; 2) the role of family members and their ideational and material resources; 3) the importance of trade, economic status, and "networks of success"; and 4) patterns of innovation in agriculture, including from unexpected sources and examples, and with an emphasis on the importance and potential of irrigation, whether involving the state or not.

In reviewing governmental approaches to innovation and the models of governance which underpin government interventions, and which have broadly been highly successful in driving change, the second part of the chapter discusses a number of patterns of evidence indicating ways in which technology transfer via governmental packages or models has not always been well tailored – for instance to the exploitation of potential economic niches as these emerge and evolve in each

location; nor sensitively communicated; nor successfully piloted or demonstrated amongst those best able to use it. This flags the need for interventions and "packages" better tailored to respond to specific local opportunities and niches, and identifies potential issues, in relation to which practices – and the processes or models that underlie them - might be improved to foster responsiveness, inclusivity, and creativity both individual and collective. Here the discussion broadens out to consider a wider set of governance-related questions emerging from the data, which are associated with the organisation and practices of the state at local level.

The chapter suggests that policymakers may wish to pay attention to issues such as: 1) redressing an apparent over-concentration of local (especially *kebele* and sub-*kebele*) government responsibilities in a few hands; 2) strengthening mechanisms for decision-making and engagement amongst women and young people; 3) examining the key roles and relationships involving the *kebele* manager; 4) revisiting the efficacy of the system of "models" – particularly "model farmers" - in reaching the wider community; 5) rethinking approaches to "attitude change"; 6) rebalancing relations between the three branches of government locally; and 7) paying close attention to diverse citizens' perceptions of the relationship between development and politics.

Community innovation and learning: harnessing the potential of individual creativity

Urbanity, modernity, mobility and youth

Not surprisingly, urban centres are widely seen from the (relatively more) rural WIDE sites as centres of modernity or modernisation (see also the chapter on urbanization by Bevan in this volume). In many instances, this means that they are also seen as offering potential for change.

New potential for innovation and change offered by urban centres

It was a widespread perception, documented in the WIDE data, that new ideas were coming from urban areas and connections, *per se*, rather than (just from) the government officials or the *wereda* or *kebele* structures with which (small and micro) urban centres were often associated. It held across communities, from Gedeo to Tigray (e.g. Adado, 27, 32; Harresaw, 197).[7] In some instances, the correlation was associated with education as well as with increased interaction, or perceptions of modernity, and the superior teaching-learning experience of private schools in larger urban centres was commented on several times (e.g. Aze Debo'a/Kambata, 14). Several students from wealthier families in Adele Keke had graduated from private colleges in Dire Dawa or Harar, which although expensive, were thought to provide better teaching and learning than schools in a more rural community, where emphasis on education was relatively low, precisely because they offered practical experience for the implementation of taught ideas (Adele Keke/East Harerge, 138) (see the chapter on education).

Urbanisation in or close to WIDE sites has seen new services emerge at most *kebele* centres: places to buy and sell – or even cook – bread, or offering new services for battery charging, torch maintenance and hairdressing; along with (in Gedeo), for instance, a new coffee union and buildings in the *kebele* centre (Adado, 5,6,93); or services for mending mobile phones (Somodo/Jimma), bicycles and shoes (Harresaw/East Tigray, 90). In Wolayta, as a nearby town expanded, the *kebele* deputy chairman reported that the "acceptance of new arrivals is now faster than it was" (Gara Godo, 183). The WIDE data also provide ample evidence of community reflections on different levels of innovation. Gamo interviewees, for example, described their *kebele* (which is relatively close to the local town) as more open to new thinking and modernisation than some of its more "traditionalist highlander" neighbours (Do'oma, 106). There is a wealth of evidence of the new affordances of interaction-based influence and change inherent in processes of micro-level urbanisation and rurbanisation.

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[7] Numerals throughout refer to page numbers in WIDE3 community profile documents, researched 2010-2013, which can be found at http://ethiopiawide.net/communities/.

In Gamo, as in many places, more successful community members saw young people – particularly those with small town contacts - as likely to be less dependent on their families, and to have wider aspirations (although this is not true of all of them, as discussed in the chapter on youth transitions); and their peers as more likely to "expect change and development from individual hard work" (Do'oma). In Eastern Tigray, similarly for instance, a successful livestock broker (influenced by what he had seen in the nearby town of Atsbi) saw the potential for house and land brokerage, and hoped to be able to occupy the new urban niche on an official basis (Harresaw, 90).

Young people and urban culture

The modern status of those who have visited burgeoning urban centres was seen as variously marked: by learning Amharic, using a cell phone or wearing jeans or hats (Do'oma/Gamo, 164-5; Gara Godo/Wolayta, 183). Young people are widely credited with bringing innovative ideas from visiting cities – for establishing transportation by motorbike for instance (Adado, 52; also Do'oma 67) - or because they had moved further for work (to Shakiso for gold mining in Gedeo). Importantly, not all changes were seen by all as positive. As in a number of other sites, *chat* chewing was described as a new form of leisure activity amongst young men in Adele Keke/East Harerge (41) and Gelcha/East Shewa (30). Another innovation was hair straightening, and interviewees noted that changes involving young people following urban fashions in food and dress could be costly for the poor (e.g. Adado/Gedeo, 22, 23). Others expressed concern that new immodest fashions could be "tempting youth sexually" (Do'oma/Gamo, 165). More practically, however, in Gedeo adult women learned to wear separate skirts and tops, sometimes with trousers underneath, from female students in the Gedeo area, in contrast to the full dresses worn before 2008 (Adado, 22, 36).

Mobility and new ideas

Along with urban interactions and youth, mobility (as discussed in more detail in the chapter on migration) is also increasingly important in relation to the introduction of new ideas. Migrants returning from experiences elsewhere were regularly thought to have brought new ideas and practices (not all of them uniformly seen as positive), although a contrasting general impression in several communities seemed to be that migrants tended to return with money or send remittances rather than bring back new ideas (Harresaw/Eastern Tigray, 90). In Eastern Tigray, a roofer had learned his trade in Eritrea and returned with it to make a good living, eventually hiring several assistants including his son (Harresaw, 90). Ventures into mining or for other wage labour or employment, although often difficult, meant that many had been able to change their lives as a result. In East Harerge, farmers reported learning from the neighbouring Haromaya *wereda*, which had "more innovative technologies" than their own Kersa *wereda* (Adele Keke, 5). Meanwhile, richer farmers built houses in Awedey and Haromaya, and construction design locally had changed under their influence, with community members also beginning to move new houses closer to the road, having previously feared risk from traffic accidents (Adele Keke, 10). Over the last several years since 2010, a new norm had emerged of collecting community contributions from those attending celebrations for new graduates (100-200 birr each), to set them up for the future.

Returnees and remittances from longer distance migration have often had more profound effects on the home communities, especially communities on the well-trodden routes to South Africa from Kambata and the surrounding areas (Aze Debo'a/Kambata, 86ff), and to the Gulf (see Harresaw and Geblen in Eastern Tigray; as well as several of the Muslim sites in Oromia, e.g. Somodo/Jimma, 134-5). Although migration in Tigray is widely associated with stopping formal learning (Harresaw, 21), it was also expected to bring "good things, individually and in the community" including new access to credit (Harresaw, 109, 190), as well as "some ideas with frightening messages", as when migrants returning from Muslim countries were thought to have modified their previous religious values (Harresaw, 19) (See the chapter on moving for work). WIDE findings in this respect from rural communities seem to parallel the ambivalence which has been documented in other parts of the continent in relation to diaspora returnees (see for instance, Hammond and others in Akesson &

Eriksson Baaz (2015)) – whilst showing that micro towns and hamlets can incubate innovation as well as large cities. This has potential implications for Ethiopia's policy makers, who might consider decentralised approaches to "rural industrialisation" to be as potentially transformative as macro level process of urbanisation or centralised industrial park development.

Innovation, and changing social and familial norms and relations

Gendered shifts

Relations within the family emerge from the WIDE 3 data as a particularly important source and sphere of innovation and change. Thus, for instance, lack of economic independence on marriage seems to have driven increased contraceptive use in some new families, for instance in Kambata (Aze Debo'a, 42). In Gedeo, even a woman in a relatively poor household noted positive changes in the way children were reared including attending pre-school kindergarten taught by 5th grade students, in the Gedeo language, which had not been the case 10 years previously (Adado, 49) but which was considered a potential advantage when they joined school (139). It was also noted that parents did not beat their children as they had done a decade before. Work for children and young people continued to be a source of evolution and change. Young children (13 years old and younger) were learning shoe shining or selling sugar cane from older siblings in several sites, especially in the south of the country.

Meanwhile, options for divorced women seemed to have improved in a number of instances. In Wolayta, a divorcee was planning to build a new dwelling in her homestead, and open a restaurant (Gara Godo, 155). Elsewhere, young women doing seasonal work in a new coffee washing station, was a recent phenomenon reflecting increased freedoms (Aze Debo'a/Kambata, 40, 41), and the presence of the locally founded NGO KMG lobbying against FGM had created some discussion (if not yet behavioural change) about a previously taboo subject (129). *Iddir*, which were reported to be a relatively recent innovation locally, also provided a forum for these new discussions, as well as for support to those with HIV/AIDS (123). In the same community, *kebele* officials noted that "planning together with the community" was a new trend "highly accepted by the community" and adopted from NGOs in the area (133). In Eastern Oromia, school and girls' clubs were having a similar impact (Gelcha, 60). Meanwhile, in Gamo and North Shewa, for instance, campaigns to eradicate various "harmful practices" seemed not to have been entirely successful, despite some impact on social attitudes (Do'oma, 104, 7; Dinki, 19, 20) (see also chapters on youth transition and young women's health and wellbeing). WIDE data in respect of gender and change tend to support the conclusion that policies to transform institutions and gendered social norms will be key to reducing poverty (World Bank, 2015:xxiv).

…and learning from family members

Family resources (both material and ideational) emerge as particularly important in fostering innovation in the communities studied by WIDE. Where women became model farmers, they had in many instances learned from family members, as in the case of a widow in Gedeo (Adado, 150,155), who was, as a result, able to employ three daily labourers, and seemed to regard the DAs and labourers as something of a "learning network." In East Shewa a dynamic *kebele* deputy was also involved in designing and clearing irrigation ditches – a skill he had learned from his father (Gelcha, 154). Meanwhile a 25-year-old woman had taken over her husband's trading business whilst he was studying at university, and even learned to give animal injections, to meet local demand for administering veterinary drugs (Gelcha, 160). Family gifts of land and credit were often as critical to innovation as ideas and skills. The key lesson to emerge from the WIDE 3 data, then, is that not everyone is in a position to innovate, but those who do draw on non-technical knowledge and resources, as well as technical and/or technological skills.

The impact of religion on community learning, innovation and change

Religion as a vehicle for new ideas was a widespread perception, with national and international

spiritual radio programmes in local languages an important vector in at least one Protestant site (Aze Debo'a/Kambata, 16,159). In another, preachers from the new churches were coming from elsewhere to talk about religion (Adado/Gedeo, 55), and several seemed to feel their religious practice was changing under urban influence, with the new religions better than the old ones (Adado, 17). A community member who had gone to Dilla for training was now a pastor in the local church; religious rules had become more strict or more strictly applied, something which some young people liked (55, 170), and a new *Tsega* church had introduced speaking in tongues (22); others felt the churches were paying more attention to "teaching the community better than in the past about married life, family, etc." (151), with the Bible seen as a positive source of wisdom for several Protestant communities. In Wolayta, the *Hawariyat* church was in the process of removing holidays from its annual religious activities, in order to inculcate a culture of hard work for food security (Gara Godo, 183).

In other areas meanwhile, there was resistance to religious change or conversion, which was "changing the history of the community" (Luqa/Tsemay, 27) and advocating new social norms (44); with some pioneers even threatened with being outcast (49) - an attitude that seemed to be eroding. Ambivalence to the influence of new religious attitudes seems to reflect ambivalence to processes of modernity.

The roles of trade, status, and 'networks of success' in promoting innovation

The WIDE data indicate that people regarded by others as successful innovators often had nothing to do with the *kebele* or system of models; but that the ability of individuals to innovate often correlates with access to a wide range of other resources. Innovation often reflects a growing entrepreneurial awareness amongst individuals in rural areas that connects with emergent inequality. The wealth of rural evidence of successful informal adaptation and innovation indicates change was as much a function of socio-economic resources, openings and opportunities as of new attitudes – especially amongst young people, and in economically more dynamic communities.

Opportunities often multiplied with innovation and accumulation, as success bred success. Family members of the economically successful were often more able to innovate: thus, the wife of a wealthy household (with a latrine, concrete floored house, and new sofa) was making a good income from a shop and beauty salon opened on the roadside three years before the research (Aze Debo'a/Kambata, 14). Those well networked with trading links were also in a good position: thus, for instance two business people and their families in Gedeo were involved in selling hides and skins, soft drinks, and running a bakery with retail into Dilla town and across a range of outlets. Their trading networks supported further innovation:

Trade by itself is a channel to contact many people, and through it linkages increase and this leads to co-operation. People in the network are good to support each other. For instance if I lack money to finance trade for a particular profitable product, there is an opportunity to contact one of the [other] traders and get money. (Businessman, Adado/Gedeo, 155)

Different kinds of traders were associated with innovation, evolution and change in many communities: coffee and livestock traders in Durame (Aze Debo'a/Kambata, 69) along with other small businesses – all of whom had started using their own or family capital rather than credit. In the Tsemay site, where there had also been abrupt changes with the advent of roads, electricity, and the mobile phone network, significant shifts in livelihoods, and patterns of food and dress were also associated with the beginnings of trade (both livestock and petty trade), and the introduction, in 2009, of sesame as a cash crop (Luqa/Tsemay, 18).

In other cases, innovators were associated with the local party or were *kebele* members, but pursued through formal channels ideas for new businesses, which they had developed independently, through informal networks and learning processes. In Adele Keke, an imam who had worked as a traditional healer for 10 years since being trained by another traditional healer, wanted

to get permission from the government to pursue the work officially (Adele Keke/East Harerge, 180). In a number of cases, TBAs who had trained themselves informally by learning from their parents (Do'oma/Gamo, 157; Gelcha/East Shewa, 161) or peers (often after traumatic childbirth experiences of neighbours or family members (Adele Keke/East Harerge, 182)), were also involved in formal HEW programmes (see the chapter on maternal and child health). Where innovation was visible to other members of the community, innovators were held in relatively high esteem, as sophisticated members of the society, with wider horizons: in Eastern Tigray, for instance, the research concluded:

the educated opinion leaders are ex-fighters and people who have a religious school background and modern education. They are fast to accept new changes and mobilize the community. They had exposure to other places. (Harresaw, 181)

In other instances, similarly respected successful – and influential - individuals were from other walks of life, with few or no links to local government. This category has been discussed by Tefera and Dom in this volume.

Agricultural innovation

WIDE 3 data indicate that community innovation in and around agriculture was particularly vigorous and diverse in the period between 2010 and 2013, across all demographic groups and individuals: it extended into associated economic activities in other sectors, as well as social, cultural and other community beliefs and practices; and many of these different kinds of innovation tended to reinforce one another. Agricultural innovation and dynamism, or diversification in or away from agriculture, are often at the centre of these wider processes of change. As noted in the chapter on successful individuals, livestock plays a key role in innovative diversification from agriculture more widely in the rural economy. Changes in attitudes to livestock were visible in many places, including in agro-pastoralist areas where some people had begun fencing their land to keep livestock out (Luqa/Tsemay).

The importance of irrigation

In particular, however, it was the introduction or expansion of irrigation that often seemed to shift wider economic interests and opportunities locally: in almost all of the sites studied there was evidence that this triggered innovative practice and change well beyond the agriculturalists whose land was directly affected. It offered local actors new experiences of diverse or cash crop production, and (like rural-urban linkages) offered new opportunities for wage and daily labour (see Somodo/Jimma, 19); it promoted local market networks and relations with traders; and increased the potential for significant enrichment of some (not all) community members; and in doing so it boosted rural-urban linkages. In many places, interlocutors were conscious of the value of irrigation in establishing "virtuous cycles" of economic dynamism, and regretted that there were not more instances of irrigation development in their locality, commenting on the availability of good local potential for irrigation development, and demonstrating the strong local perception of its positive potential impact. In particular, as initiatives to enhance rural job creation have gone up the development agenda in recent years, WIDE data suggest that they could usefully focus on exploiting all aspects of micro socio-economic change emerging in and around irrigation sites: new demands for local services to labourers or traders; and private sector opportunities in growing local cash economies.

In addition to the creation of vibrant micro-economic pockets, irrigation regularly had the effect of diversifying both livelihoods and food consumption; and it also tended to boost food security in areas where production has been insecure (as for instance in Geblen and Harresaw/Eastern Tigray; Dinki/North Shewa; Korodegaga/Arsi; Do'oma/Gamo). Nevertheless, despite the importance of irrigation as a catalyst or driver of change, the evidence suggests that those who achieve economic success with irrigation innovate cautiously, spreading risk across income sources: this is a widespread strategy government might adopt when seeking to boost production (or when tempted

to advocate specialisation), especially given that even many of the more successful innovators may not yet have achieved sustainable economic gains (see the chapter on successful individuals).

WIDE evidence regarding irrigation also demonstrates its complexity and diversity, and the need for very careful design, planning and management *in situ* of divergent local interests. Irrigation co-operatives were reasonably effective in several of the sites (e.g. Shumsheha/Wollo, 113); others had dams and committees for pump and drip irrigation (e.g. Harresaw/Eastern Tigray); and in one, large tracts were identified for spate irrigation, as well as developed by a Self-Help Irrigation Association, by government, and by irrigation co-operatives (Korodegaga/Arsi). In at least three cases irrigation has caused tension, if not violence: arguably unsurprising, given its impact on the distribution of benefits central to the local micro economy. Controversy emerged in the Arsi site over 29.5 hectares originally given to a youth co-operative for irrigation, which the *wereda* transferred to an Australian investor (31); in Jimma grazing land was given to investors for vegetables, meeting some resistance (Somodo, 5-6,19); and in Tsemay irrigation saw conflict with Konso incomers around the Woito River (Luqa, 17).

More than one kind - and scale - of irrigation system should be considered by those seeking to promote shift production away from rain-fed agriculture, with support to interventions and initiatives of different types suited to local ecologies and economies, and protective of local interests.

Other "innovative sources" of agricultural skills, change or diversification

Farmers and others innovated and appropriated skills in a variety of serendipitous ways, and from a range of unusual or unanticipated external sources: in East Harerge, learning to tap underground water to expand irrigation by observing Chinese road construction in 2006, for instance, indicating an exemplar that played at least as much of a role in local knowledge diffusion and behavioural change as government extension and training (Adele Keke/East Harerge, 12); graduating from agricultural and then construction daily labour by learning on the job to become a well-known builder, responsible for 20 houses and a local school (Aze Debo'a/Kambata, 70); and taking advantage of the construction of the new airport in Lalibela in 1997/8 to become skilled in carpentry and construction, with a good enough income to stop farming (Shumsheha, 89). These and many other examples provide evidence of the socio-economic value of "positive deviance"[8]: individuals noticing and appropriating the potential of changed practice by departing from well established (often agricultural) work patterns or social norms (see also the chapter on individual success).

A particularly striking example of an unusual external source of new ideas and innovation that spread into a local community is in the evidence from the Gamo site where "community members have been learning new ideas from the working culture of the Amhara immigrants who introduced new crops and vegetables" (Do'oma, 9), as well as such techniques as repeated tilling, new planting technologies, and longer working hours (Do'oma, 59). One model farmer "employed two Amhara immigrants to work on sorghum farming as they knew a lot about it" (Do'oma, 57), and concluded the "immigrants had demonstrated it was possible to harvest considerable production from ¼ hectare of land" in contrast with the locals who had preferred crops that didn't require intensive follow-up (*Dooma,* 55). The outcome had been significant changes in production techniques locally, and much greater interest in higher technology production on both irrigated and dry land in the *kebele*.

The WIDE data, then, indicate that the learning behind effective innovation is regularly non-linear, unpredictable, and serendipitous, as well as often very localised, responsive to specific socio-economic circumstances. Development outcomes could also be improved with closer attention to the developmental potential of local communities emulating individual or "outlier" innovation, or

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[8] For an interesting discussion of the power of positive deviance to effect change and solve problems, see Pascale, Sternin & Sternin (2010)

learning from unexpected sources. The extent to which community members learn from particular individual neighbours emerges as the result of multiple, contingent processes, which would need to be investigated in each case, rather than uniform causal pathways that can be assumed in policymaking. WIDE evidence indicates that there is no shortage of innovative behaviour or creative attitudes in rural areas. The chapter now turns to consider in more detail Government approaches through formal demonstration or models. Clearly, even over the period between 2010 and 2013, when they were arguably at their most intensive, government interventions were not the only – or indeed often the most important - sources of innovation and change locally. What then can be gleaned from the data about their impact, in the period of the research?

Government strategies for innovation and "technology transfer": packages that work for each community

An Ethiopian analyst, now senior in government, observed recently that:

Innovation includes endogenous development, social learning, concerted action, emergence from interaction and institutional change (Yinager Dessie, 2012: 8)[9]

This approach - privileging *collective* learning and concerted action, to bring about changes of attitude and practices - has formed the official basis of Government strategy for technology transfer in rural areas. The approach to learning, innovating, and "changing attitudes" is at the heart of the government's developmental (and its political) strategies. The system of working in an institutionalised way through models and networks is designed to maximise massive adoption of developmental innovations (through developmental or political "consensus") designed externally by government. A model farmer in Gedeo, for instance, agreed with his administrators that:

Successful and model farmers usually are good in accepting new things so when there is a new technology to be given to the community, the model and successful farmers are chosen to implement [it] first and are used as demonstration. (model farmer, Adado, 102).

Thus, as in the Gedeo site (by no means the most innovative, dynamic or highly evolved of those studied), across the country members of development teams attended agricultural lessons, grew vegetables, and shared experiences; members of womens' development teams "learn from each other and from their one-to-five groups" (Adado, 128), whilst HEWs "give priority to those who accept new things and teachings," who are usually aged below 35 years (Adado, 129). One-to-five networks reported having adopted new more efficient practices of rotating collaborative labour, rather than working alone (Adado, 183). In many sites, those who were close to the *kebele* committee, or involved either as models or party members,[10] appreciated their involvement in meetings as useful for getting quick access to "new ideas" or "new development interventions" (see the chapter on economically successful individuals).

In support of this notion of "achieving consensus", TV and radio were commonly cited sources of new ideas and innovation (e.g. Aze Debo'a/Kambata, 11; Gara Godo/Wolayta, 183): awareness of HIV/AIDS increased, even in sites where no cases were known (Adado/Gedeo, 132/3); also "new ideas about the market" (Adado, 32); and in several communities members thought watching TV was "good for the family [who tried to] implement what they had learnt to improve their living condition" (Adele Keke/East Harerge, 18), such as health extension information (186). The system

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[9] The argument cited here makes reference to Röling, 2009: 9-34.
[10] Party members reported that they "learned about GTP and other newly introduced or planned interventions" (Adele Keke/East Harerge, 145; Aze Debo'a/Kambata, 123; Gelcha/East Shewa, 35; Harresaw/Eastern Tigray, 196; Luqa/Tsemay, 64,106), often "from what they read" (e.g. Adado/Gedeo, 183) with newsletters and cell discussions key to this process across communities. General meetings of the *kebele* had also been introduced in several of the WIDE sites, and were seen as useful "when new things come," where previously some externally driven innovation had been seen as confusing for the community (e.g. Adado/Gedeo, 183).

has delivered very significant new knowledge and developmental benefits, but could also be significantly improved and nuanced better to meet rural needs and exploit rural economic opportunities for growth, diversification and inclusive change. In particular, members of wider social circles, beyond those close to local administration, were often largely unaware of, unengaged or uninterested in these initiatives: the evidence for this apparently systemic problem is compelling. As previous sections of the paper have noted, governmental approaches emphasising a combination of social (inter)action and learning through institutionalised systems of demonstration or models need careful nuancing in relation to "attitude change", to take account of the remarkable diversity and vigour of ongoing innovation amongst communities and individuals.

One size does not fit all…

As the late PM's observation quoted above suggests, a strength of Ethiopia's development vision is its recognition and empowerment of diversity. A key message of WIDE 3 is that this heterogeneity extends beyond the Regional State or *wereda* to the micro level: within the *kebele*, sub-*kebele got* or zone, to development teams, one-to-five networks, families and individuals. This means that "one size" very clearly does not "fit all" in terms of development interventions.

WIDE 3 data documents a national context in which the scope of these interventions at sub-kebele level was broad and ambitious. Their design and implementation was regularly driven by those at *wereda* or higher levels: in line with research that suggests strong "supply side" leadership may be key to accelerated socio-economic change in certain circumstances (Booth, 2011), this has generated positive outcomes (e.g. re MDGs) at the macro level. Nevertheless WIDE 3 data also shows how insufficient understanding of the micro-dynamics and needs of individual *kebele*s or *gots* / sub-*kebele* zones leads to inappropriate or poorly implemented "packages," generating frustrations between individuals, communities and their government leaders.

Interventions in several WIDE sites demonstrated weaknesses in helping communities innovate to exploit emerging linkages or opportunities, for instance regarding local urbanisation and new markets: members of a peri-urban community complained of being set standard extension production targets, rather than objectives better related to exploiting (productive and 'value adding') benefits and opportunities in a neighbouring town (Gurage/Girar); individuals in a rural but integrated site were keen to take up unrecognised market opportunities for craftwork learned from a neighbouring *kebele* , but found it difficult to win support (Jimma/Somodo). Similarly there were differences regarding the prioritisation of investment in infrastructure, with urgent local priorities (the provision of drinking water for instance, in East Shewa / Gelcha and one inaccessible area of East Tigray/Harresaw) delayed in favour of a range of priorities defined elsewhere: the construction of administrative buildings notably elicited particular resistance.

Design and quality issues

Even where state-led innovation worked, WIDE data suggested that it has frequently suffered from poor design or weak specificity, or from weaknesses in popular engagement or participation. This seemed particularly true of initiatives for livestock and fodder production and environmental protection, but also of attempts to create jobs and economic associations. In Gamo an association set up to supply building materials to the *wereda* was banned by the *kebele* because of fears of its impact on a newly gazetted national park (Do'oma, 90). In the Tsemay agro-pastoralist site goats died from eating a newly introduced grass (Luqa/Tsemay, 135); meanwhile, in an AGP site, where grass seed was introduced by DAs and some had planted it, other community members wanted better information about producing "man-made livestock feed" (Adado, 4).

Costs were also problematic. As in a number of sites, inflation had compromised community enthusiasm for ox fattening, as support under the AGP did not cover the initial purchase, and people began to "hate the project" (Adado, 10). High input prices were also described as barriers to the uptake of new ways of farming being promoted in several sites including in Kambata (Aze Debo'a,

59); meanwhile amongst agro-pastoralists at the site in East Shewa, the absence of credit acted as a break on the introduction of Borena bulls, which the community favoured, and which was being promoted elsewhere in the *wereda* (Gelcha, 84; see also Luqa/Tsemay). Human error also contributed. In East Harerge, innovative tree planting near Keke Mountain had been undone by neighbours in the area (Adele Keke, 55); in Wollo, it succumbed to the thin dry soil of the area (Shumsheha, 69); whilst in Kambata the decision of the *kebele* to sell grass from new enclosures caused public resentment (Aze Debo'a, 66). Finally, technology sometimes failed too. In Gamo, heavy metal ploughshares advocated by DAs were rejected in favour of the wooden metal-tipped versions introduced by local settlers (Do'oma, 58, as mentioned above); and an attempt at rainwater harvesting using plastic sheeting was abandoned after lack of rain in 2007, and theft of the materials (Do'oma., 59).

Some problems seem to have arisen from popular perspectives and priorities. In most sites, women's associations and leagues at *kebele* level had achieved little (Harresaw/Eastern Tigray, 55) or were barely functional (Do'oma/Gamo, 45), with leaders occasionally described as reluctant to work with *wereda* co-ordinators, or to take their responsibilities seriously. In Gelcha/East Shewa a well-to-do woman felt she was unable to pass on training she had received, as her peer group was reluctant to come together for long enough periods (120). Other problems had to do with the quality of the advice on offer. In Gedeo again, coffee and enset diseases were introduced along with new hybrid seedlings (Adado, 2). Innovations liked by *kebele* officials did not seem to have been more widely taken up: composting and replacing seedlings regularly seemed to work, but a new variety of quick maturing coffee was unpopular (Adado, 90). The idea of saving had been widely introduced, but many remained critical of an acute unresolved shortage of credit; and those who *had* taken loans had difficult experiences, despite attempts by Omo MFI to improve its recovery processes (Adado 120-1).

The WIDE data also indicate Government-backed innovation regularly had undesirable and unexpected side effects. The construction of a new asphalt road from the airport to Lalibela bypassed the site at Shumsheha/North Wollo (70), cutting economic opportunities and causing local frustration and anger. The productive safety net programme (PSNP) has had an important impact in changing incentive structures in several research sites, and whilst in some places it was seen as stimulating the work ethic (Gelcha/East Shewa, 14), in a number of other instances negative side effects were noted: in Gamo, for instance, respondents noted PSNP was "developing new attitudes" which were weakening traditions of voluntary collective community work (Do'oma, 86). Changes in land administration in Eastern Tigray in 2003EC had also had unfortunate consequences: bringing conflict between *gots* as responsibility shifted from the *tabia* structure (Harresaw, 63). As with irrigation, discussed above, innovation and change related to this key resource, whilst potentially a critically important driver of change, often touched resistance and triggered problems, even when relatively sensitively managed.

Making decision-makers of all of Ethiopia's citizens: Involving women and young people

WIDE 3 data across all communities (arguably with the exception of Eastern Tigray/Geblen and Harresaw) indicate that the involvement of women in local political, administrative, and development leadership and decision-making is very limited: in practice, the preserve of exceptional individuals. WIDE 3 data document the critical role undertaken by ruling party members in shaping and populating local government and development leadership: this being so, inclusive developmental outcomes are unlikely to be achieved, unless the ruling party adopts a pro-active strategy of recruiting equal numbers of women and men across the country, increasingly promoting women to foster their involvement in core executive and political structures as well as female development teams and one-to-five networks. If women's associations were weak, WIDE data indicated that interventions by youth associations or co-operatives also regularly suffered from all of these problems (see the chapter on young people). The weakness of organisational structures for youth interests in rural areas is a pattern reported across most of the 20 WIDE communities and may

contribute to the relative paucity of MSE or job creation schemes mentioned, as compared with government initiatives in urban centres (see Girum & Eden, 2014).

In East Shewa, in a pattern reminiscent of findings of other work in ago-pastoralist areas, obstacles thwarted official attempts to encourage young people to take up intensive cultivation:

First, some youth still refuse to engage in cultivation and sharecrop out the land to migrants and continue with their [agro-]pastoralist mode of life. Second, they have little experience with managing money and squander [it]. Third, there is a tendency of many youth organisations focusing on one thing [e.g.] packing and loading onions without taking into account the demand, which results in less income than expected. (Wereda official, Gelcha/East Shewa, 64-5)

Several instances of collapsed co-operatives (similar to the problems of associations of youth or women) were reported, where management had been inadequate as they grew, and initial contributions had been lost. Meanwhile, model farmers frequently bore the brunt of frustration when innovation experiences were negative: thus "if farmers have problems with new seed which is incompatible with the area, the first one attacked is the model farmer who adopted it first" (Gara Godo/Wolayta, 73/4): getting the right personnel in place in the *kebele* in order to ensure success, remained a challenge (*Gara Godo,* 123), as further discussed below.

Not all instances of state-led technology transfer and innovation, then, have been successful. It seems clear that "technology transfer" outcomes could be further improved by closer attention to the specificity of very local opportunities for learning and innovation; and to the sophistication of the informal social knowledge diffusion processes and local calculations of interest that underpin effective "technology transfer". However, this kind of local nuance is hard to capture by means of quantitative targets or national packages.

Harnessing community energies

WIDE evidence indicates that policy makers should not underestimate the potentially corrosive impact of resulting community frustration on the sustainability of Ethiopia's intensive development model. This recurrent problem seems to indicate weaknesses in *kebele* mechanisms for feedback and evaluation of interventions (both identifying and reporting problems), which tend to focus more on quantitative targets for activities and outputs, than quality of outcomes and processes. *Wereda* and *kebele* authorities should ideally be supported to collaborate with communities to design more locally, and monitor more closely, tailored packages that increasingly target the specific needs of each community. Interestingly, these findings from the WIDE data are in line with recommendations to "walk the talk on decentralisation" - particularly at *kebele* level – central to more formal assessments of the extension system (Davis *et al.,* 2010).

As the economy grows and diversifies, desirable trajectories of value addition will become increasingly diverse, complex, and non-standard: attention to the economic potential of local processes and networks around small-centre urbanisation – especially productive opportunities occupying niches beyond wage labour – should become an integral element of local design and consultation processes. Improving the tailoring of local development initiatives will be a key "entry point," and should become a realistic prospect as *kebele* and sub-*kebele* structures continue to strengthen; success is also contingent on many of the other issues of "quality of process" discussed below, which taken together have the potential to drive mutually reinforcing "virtuous cycles."

"Drivers of change"? Coercion, persuasion, pressure and consensus

There is some interestingly complicated evidence about "coercion" for developmental ends in the WIDE 3 data. The introduction of the "good governance package" in 2006/7 saw an end to formal sanctioning, including fining, of citizens for non-participation (in meetings, community labour, contributions): whilst this more voluntaristic approach has been evident and generally welcomed in WIDE sites, two issues remain. First, sources in several Amhara sites, including those outside local

government circles, commented (with disapproval!) that government services and authority were "less capable of getting things done" as a result (East Gojjam/Yetmen; North Shewa/Dinki). It is important for Ethiopians and their development partners not to be naïve about how difficult it is to engineer rapid and desirable social change, other than where visible economic incentives make it immediately attractive. Some of the most important – and positive – social changes of recent years (the rapid expansion of women's engagement in local political and governmental positions in Tigray is a good example) have been pushed through in the face of controversy and opposition.

On the other hand, the WIDE 3 dataset is replete with evidence of the negative social, developmental, and even political implications of local government bodies applying strong pressure – often perceived in practice as coercion – to advance initiatives seen locally as undesirable: especially where it later turns out that they were not widely beneficial. Initiatives involving encroaching on land (as already noted) regularly proved controversial, and provoked resistance when land was gazetted to a national park (Gamo Gofa/Do'oma); or when in several sites communal grazing land or woodlots were allocated for exploitation by youth co-operatives or MSEs (see Girum & Eden, 2014)

WIDE 3 data seems to document an increase over the period 2010-2013 in the capacity of the leaders of local government to mobilise and organise their constituents through four tiers of local government structure: *kebele,* sub-*kebele got*/zone, development team, and one-to-five network. The importance of processes that are inclusive, responsive and locally driven can be expected to intensify as these structures evolve. The problem is well expressed in an analysis reviewing WIDE research conducted in 2010:

In areas that are not directly clashing with local knowledge (e.g. kebele administrative services) or where the local model is evolving (e.g. modern education), the government go-betweens can play more of a role of service providers (kebele managers, teachers, and school headmasters). This suggests that only if/when the community wants the service can agents become service providers. In areas where the (donor-supported) government effort to change the rural communities is more starkly at adds with local knowledge, the government go-betweens are confused to a 'change by extension' role and prevented from adopting approaches facilitating complex change. They are faced with a two-pronged tension between (i) role as service provider vs. change agent and (ii) a role as extension change agent vs. 'complex change agent'. [...] The government change model implicitly recognizes the particular 'location' of the government go-betweens between the higher levels of government and the community. There is not much recognition of the ensuing tension between upward accountability and local responsiveness' (Dom, 2011: i)

A top-down approach premised on lengthy face-to-face trainings and easily quantifiable concrete targets may arguably have facilitated rapid transitional-institution building in a context of widespread illiteracy, weak communications infrastructure, and low capacity for management and leadership (the devolution of service delivery to *wereda* level was not much more than a decade old at the time of the WIDE 3 research). Each of these constraints is now eroding, and WIDE 3 findings suggest that the model was unlikely to prove sustainable over the longer term (see also Davis *et al.* 2010); that it could and should evolve, better to prioritise local ownership and protect local preferences – releasing energies and capitalising on assets at village level; and that it should take closer account of independent community initiative and creativity.

Overburdening the few? Extending and consolidating sustainable inclusion

In all WIDE sites, very many leaders at *kebele* and sub-*kebele* levels – salaried and unpaid - complained of the doubling up of multiple roles, extremely heavy workloads, and the economic or social sacrifices inherent in their local administrative responsibilities. Instances in one site, but typical of all, saw a busy *kebele* chairman and his wife lose *chat* revenues along with the time to be able to trade; a well-qualified, successful man refuse to engage because the time taken would damage his business interests; and a politically active woman party and militia member report

arguments with her husband over her onerous obligations (East Harerge/Adele Keke). Tax collection is regularly described as particularly burdensome for the *kebele* chair or other leaders, not least in peri-urban environments with more non-farm activity (Gurage/Girar).

WIDE 3 data indicate that the concentration of multiple responsibilities amongst a small group of *wereda/kebele* leaders is a ubiquitous pattern with systemic consequences that have a serious deleterious effect on Ethiopia's development outcomes. There are two aspects to this: the impact on those leading the process (see also Dom, 2011); and on those they seek to lead. Their heavy burdens often mean that motivation is low, and frustration and exhaustion high amongst the leaders of local government, and local civil servants. In several sites, unpaid *kebele* leaders wanted to leave their positions, but felt unable to do so because of institutional pressure or political expectations; in others the system evidently acts to deter the most able or productive from taking on the responsibilities of leadership, something likely to promote less altruistic community members, and compromise the quality and equity of interventions.

Interpretation of the WIDE 3 data suggests that a further effect of this situation may have been to polarise communities at the micro-level: reinforcing the isolation of those involved in politics and development; and undermining rather than promoting the strong patterns of interaction that could broaden consensus around development and local state processes. Where local leaders were overburdened by meetings, they spent less time with their constituents: it is hardly surprising if those constituents (rightly or not) became suspicious that their leaders' lack of visibility shows not commitment or sacrifice, but preoccupation with their own interests, at the community's expense. Critical or cynical perceptions of the nepotism, corruption, and greed of local leaders are reported in all sites, with stronger problems in a number (Kambata Tembaro/Aze Debo'a; Gedeo/Adado; Jimma/Somodo; South Omo/Luqa), and the existence of clan dynamics complicating several others (particularly East Shewa / Korodegaga; Arsi/Oda Dawata). Over and above perceptions of corruption or clanism, weaknesses around the provision of credit, and in the establishment and utility of co-operatives attract notably strong criticism in several sites (see also the chapters on women's economic engagement and young people).

Policy makers might wish to consider whether there are systemic factors around workloads and weak or distorted patterns of interaction that have driven a mutual lowering of expectation between citizens and their leaders in a cycle that risks undermining the development model and impacting on equity (see the chapter on differentiation; and Jones, 2014).

"Kebele managers are like salt: they go everywhere"

WIDE 3 data reveal the salience of the *kebele* manager as a lynchpin of the government development model: both the positive impact of a good *kebele* manager, who is seen as both effective and impartial (something which in practice often seems to be interpreted to mean "non-political"); and the damage that can be done to community confidence in government initiatives where trust in the position is compromised. The health of the relationship between the *kebele* manager and *kebele* chairman (often understandably complicated by differences in their age, education, and remuneration) emerges from the data as an influential touchstone, either boosting or jeopardising accountability and oversight, with strong knock-on effects on community perceptions of legitimacy and competence. These are difficult dynamics to get right, in the interests of the wider community: further research and evaluation might usefully focus on identifying and understanding the drivers and dynamics of desirable (and undesirable) practices amongst this key group.

Trickle down and models

Policy makers might also wish to take note of the prominent recurrence in the WIDE 3 data - across communities - of doubts about the breadth of benefit of the system of working with and through "models": processes of learning and technology transfer or "trickle down" between models and the wider community need attention and investigation. The arrangement of DAs working primarily with

models seems often to be seen (rightly or wrongly) by "non-elites" as excluding their interests, and as undermining equity and inclusiveness of provision. WIDE provides evidence of an important disconnect between the perceptions of *kebele* executives, those who are politically/developmentally engaged, or models themselves (who generally see the arrangement positively), and the views of (some) other community members who regularly are much more critical. This may be connected with the notion of polarisation in weak interaction patterns noted above. The dynamic is particularly visible in (some) Stage 1 communities studied in 2010, notably Arsi/Turufe and Gurage/Girar where HEWs (who "work with everyone") were favourably compared with DAs (who "only work with models"); and in Stage 2 communities, many of which are food insecure: emerging economic stratification may carry greater risks here for those "at the bottom." Evidence is apparently more mixed in the (often) wealthier Stage 3 communities studied in 2012/13 with higher agricultural growth potential, although the correlation with economic potential is unclear.

The efficacy (and indeed the ideology) of the system of model farmers has in recent years been critiqued in the Ethiopia literature – perhaps most sharply by René Lefort who sees it as part of a shift in "priority […] to focus on the rural elite while abandoning the broader peasant masses to market forces" (2015: 366), in the process of Ethiopia's formation of "the largest agricultural extension programme in sub-Saharan Africa" (2015: 370).[11] Whilst WIDE 3 data does not seem to provide clear-cut support for a conclusion as stark as this one, it does, however, reflect very pervasive concern about the ability of the system of models, as it was configured in 2010-2013, to reach all sectors of local peasant economies, and promote inclusive transformation. This complicated issue of stratification has been further discussed in the chapter on inequalities in this volume.

The shift after 2001 to focus on mobilisation of the wider community through "models" has been such an influential pillar of the Ethiopian development model of the last decades that its management and impact will need careful monitoring as the economy grows. To optimise outcomes, it will be important continually to review and adjust the relationship between increasingly wealthy or otherwise successful official "models" in the community and others: with their poorer or less successful neighbours; with other successful individuals who (may choose to) remain outside the system (skilled incomer farmers in Gamo Gofa/Do'oma); and with the civil servants (DAs, HEWs) who nominally support them, but whose roles, needs and incentives are shifting in unaccustomed ways as the economic status as well as the expertise of (some) rural producers outstrip those of the salariat. The analysis presented in this chapter, based on a review of the evidence presented by WIDE 3 data, would seem to suggest that there is room for a much more careful consideration of the strategy of conducting extension through model farmers: in terms of its impact on the local sociology and epistemology of learning - in different communities and amongst different social groups at the micro level; and as to whether some of the problems regularly encountered may be inherent or triggered at a systemic level.

Balancing executive power: justice and representation

WIDE 3 research documents a model in which the local government executive has strong scope to influence many aspects of rural life. This contrasts with the picture of relatively weaker local judicial and representative structures that emerges. Formal court structures at *wereda* level are often inaccessible to those in WIDE communities, apart from some important positive cases of mobile provision. The role of social courts in some instances gradually seems to have reduced in practice, in both scope and capacity: perhaps losing out to other increasingly influential actors: elders' committees, land administration committees, or the development teams and one-to-five networks which have seen strong political investment. Social court members express concern that their voluntary contribution is onerous and undervalued, and several informants lack confidence in

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[11] See also Davis *et al.* (2010) for a detailed discussion of the agricultural extension system.

judicial processes. Any erosion of systems of local access to justice could create additional challenges as economic diversification and growth stimulate demand for the protection of new non-land-related property rights in rural areas.

References to the *kebele* level elected representative councils are also relatively sparse in the WIDE 3 dataset, and it could be argued that this is surprising given that, since 2008, these structures have involved between 200 and 300 individuals per *kebele*, as well as one or two others from each *kebele* to participate at *wereda* level. This finding tends to reinforce the conclusions of other research that representative councils (especially at *kebele* level, but also at *wereda* level) remain exceptionally weak, their potential to fulfil community-level oversight or accountability functions still woefully under-developed. Tsemay / Luqa is perhaps an extreme example, where the council did not even meet for two years.

Ethiopia's representative councils present a potentially powerful but under-exploited resource for inclusive social transformation, with 3.5 million MPs elected across the country. WIDE 3 data offer several instances where councils have voted to replace individuals (it is less clear whether they initiated these cases or reacted to reinforce executive concerns), but none where they have directly challenged executive policy. Rather, there is evidence of communities tending to use alternative social structures for such mobilisation (East Gojjam/Yetmen saw *iddir* used to lobby against land expropriation for a school), indicating that *kebele* representative councils have not become central – or even relevant - to the articulation of citizens' interests and needs in practice. Where people use *iddir*, elders' committees, or informal networks to seek to oppose *kebele* decisions, rather than invoking the representative councils, there is a risk that what is developmental mobilisation may be interpreted in (party) political terms, escalating tensions and rhetoric, where more successful management by and within formal systems might have eased them.

Willingness to engage with or invest in local councils seems currently to be undermined (amongst development partners as well as some citizens) by the fact that the overwhelming majority of their elected MPs are EPRDF members or fielded by the ruling party – a reluctance which is likely only to perpetuate their peripheral status and weaknesses. This is a pity, not least because (with 50% of MPs women, albeit often with very weak attendance records) *kebele* and *wereda* councils constitute Ethiopia's only existing gender-representative institution. Policy makers and their development partners might wish to focus on what seems to be a neglected potential resource to rebalance the tendency towards executive-dominant government, which has been a longstanding historical feature of the Ethiopian state.

The relationship between politics and development

The notion that socio-economic development is contingent upon strong political leadership has been central to GoE and EPRDF thinking, and to Ethiopia's development model (Meles Zenawi, 2012). There are many advantages of a highly co-ordinated approach, and it is valued by many whose views are cited in the data, across the WIDE sites. However, the data also document local views about a key drawback: the tendency to conflate or confuse local perceptions of developmental and party political interests; and in some instances to reinforce the perception of their own marginalisation amongst those outside – or antipathetic to – ruling party politics. Examples of what party leaders might view as "misunderstandings" are scattered across the community testimonies presented: confusion about the difference between (party) leagues and (non-party) associations; about whether one-to-five networks – even party cells - are party, state, or community structures. Senior party leaders may be relatively clear about the distinction between party and state (more complex patterns of practice notwithstanding), but a key message of the WIDE 3 data is that citizens (including many members) often do not share this clarity.

Local political leaders often also have many other non-formal roles within the community, immersed in "traditional" and social as well as political networks of authority or collaboration. This is a function of the solubility of categories referred to above (cf. Mitchell, 1999). The Ethiopianist literature

suggests that such institutions sometimes draw on more inclusive, collaborative or accountable social norms than is the case in the formal sphere (Pankhurst, 2008). WIDE analysis echoes this view, indicating that the target-driven norms of local government practice are often at variance with community ways of doing things. Policy makers might wish to explore ways of supporting *kebele* and *wereda* leaders to extend their learning beyond governmental/political spheres, to draw on the resources and practices of other social institutions.

There is no reason in principle why a development model which is shaped by a strong central vision of transformation cannot also be responsive to the micro, but it requires an approach to local problem-solving which is open, adaptive and oriented to learning (Booth, 2012). Important analysis of Ethiopia's agricultural extension model, meanwhile, has concluded that "public extension and administration exert a strong influence over smallholder networks, potentially crowding out [other] actors, and thus limiting beneficial innovation practices" (Spielman *et al.,* 2010). Government and its development partners might consider establishing a series of institutional resources devoted to studying and experimenting with a range of different models of community governance, and with practical policy practice that can be correlated or associated with effective collective or inclusive learning, innovation and action. This reading of WIDE 3 findings suggests that it might have just as great a contribution to Ethiopia's transformation as experimentation with agricultural techniques and value chains, or processes of industrial technology transfer.

Conclusions

The underlying trajectory of rural change suggests that there is plenty of successful state-led innovation, but some of the examples cited indicate that a closer attention to endogenous learning, priorities and knowledge would be helpful. As National Planning Commissioner Yinager also notes in the source cited,

In addition to institutions, in recent research social capital is getting emphasis on the assumption that communities are more often efficient than state institutions and organizations in managing natural resources [...] (op.cit.: 10-11)

A key message of WIDE research – and a key challenge for government policy makers and their development partners – is that "the devil is in the detail" at the micro-level. Just as Ethiopia's development model is an idiosyncratic one, which is not necessarily best analysed with neoliberal assumptions familiar from elsewhere, so similarly each of Ethiopia's sub-*kebele* communities has its idiosyncratic dynamics and challenges, which are less likely to be tractable to judgements made by leaders from above or afar. James Scott's classic work "*Seeing Like a State: how certain schemes to improve the human condition have failed*" (1998) placed respect for the locally crafted expertise of peasant communities (so often dismissed as backwardness, narrowness, or conservatism) at the centre of successful socio-economic change (see also Dom, 2011). The outcomes of Ethiopia's development model are likely to be determined by how much it does the same.

All of the chapters in this volume make detailed sectoral recommendations for government support that enhances positive change and innovation. Given the focus placed by government on the transformation of the attitudes, technologies and wealth that define the rural economy, the efficacy and responsiveness of governmental systems and institutions is key. Governmental and other external interventions can have a strong impact enhancing the scope and potential for identifying and encouraging innovation: nevertheless

[…] it also matters who is doing the looking [for innovative outliers who succeed against the odds, and the lessons from their positive deviance]. The community must make the discovery itself – it's no use external 'experts' coming in, spotting [positive deviance] and turning it into a toolkit. […] PD means learning to 'spot the novel in the familiar' […] (Green, 2016)

The literature on positive deviance, sociology of knowledge, and interpretive policy analysis may point to further lessons in interpreting the diverse and multiple pictures that emerge from the WIDE

data, in terms of their policy implications. The very diversity and complexity that WIDE documented over the period 2010 to 2013 suggest that new paradigms as to how best to support the creativity of rural populations may be needed. Working only through a hierarchy of "modern expertise" and "technology transfer" to "change attitudes" may be more likely to obscure than to illuminate the ways in which socio-economic transformation and positive social change occur in practice. As Duncan Green recently put it,

Upending hierarchies is the most important lesson of all in unleashing the power of community innovation. (2016)

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