The WIDE research approach

The WIDE research can be characterised by three main features: 1) a long-term perspective, 2) a focus at the community level and 3) a qualitative data and case-based methodology. The conceptual framework is based on the complexity social science approach described below. To date the research methods have evolved over three phases from 1994 to 2013, notable changes being the involvement of female researchers from WIDE2 in 2003, and a greater focus on the role of development interventions in WIDE3.

Why a long-term perspective on the impacts of development?

There are four reasons why we have taken a long-term perspective on development in Ethiopia, comparing communities in 1995, 2003 and 2010-13. *First*, we have been able to identify and describe substantive and inter-dependent changes in the local economies, polities, societies and cultures of each of these communities. *Second*, by analysing the communities using a complexity system lens, as described below, we have been able to develop ideas about where each of these communities might be heading in the next few years. *Third*, by focusing on the period since 2003, which has seen a considerable increase in government activities and related aid-funding, we have been able to explore the impact on the communities of the combined and interacting contributions of a stream of interventions in the infrastructure, livelihoods, environment, social protection, health, education, governance, justice and social equity sectors, some of which is explored in chapters in this book. *Fourth*, we have also been able to explore the combined impact of these interventions on different kinds of community member distinguished by genderage, wealth, and other locally salient status markers (see Pankhurst and Bevan 2007 and the chapter on inequalities in this book).

Most country-specific assessments of development interventions depend on one of three approaches. The *first* is monitoring and evaluation of individual sector development programmes and projects in relation to goals set at the outset. This can provide a view of the relatively immediate impacts of a particular intervention at a particular time. The *second* involves measuring, and sometimes extrapolating, differences in administrative and survey-generated statistics between different years used as indicators of general economic development and sector progress. Recently there has been growing interest and investment in a *third* approach at project level: the Random Controlled Trial. Here potential beneficiaries are randomly assigned to a 'treatment group' and a 'control group' and quantitative analyses of the outcomes are used to establish the degree of difference made by the intervention. All these approaches have their uses. However, they do not provide information and analysis that is useful for the strategic planning of future interventions in country contexts marked by considerable internal livelihood diversity and rapid change. This is the gap that research like ours is designed to fill.

We have been exploring how, in a variety of places, different kinds of planned intervention have interacted with each other, and with other ongoing events, deep community structures, and wider modernisation processes, such as the spread of modern communications and ideas, the thickening of markets, and the building of the state. Our data have also been used to identify gaps and problems with current interventions, synergies when interventions in different sectors support each other, 'antergies' when one intervention confounds another, and short and longer-term unanticipated consequences of interventions considered individually and as sets. Also, our tracking of the trajectories of the communities into the future is related to an agenda for policy design which takes account of potential change or stasis at community levels during the period when the intervention is in place. With the right information policymakers could intervene to prevent, encourage or compensate for the anticipated changes. Where stasis is predicted the use of the framework can support identification of the factors involved in blocking desirable change.

Why a focus on communities?

Community systems are spatially-defined entities. The thousands of rural community systems found in the mountains, valleys, plains and deserts of Ethiopia are sub-systems of Ethiopia's macro system. Ethiopia, with a population of over 90 million, has around 30,000 *kebele* which are the smallest administrative unit and the site of intervention implementation. The boundaries of the community systems in which we conducted the WIDE3 fieldwork coincided with local kebele or sub-kebele boundaries in 2013[1]. The three stages of WIDE provide data on the community structures and histories in 1995 (for fifteen communities), 2003 and 2010-2013; each piece of qualitative and quantitative data can be viewed as an *evidence trace* of the trajectory of the community at the time it refers to.

We adopted a focus on communities for six main reasons. *First,* in the absence of dramatic changes in the wider context, this is the level at which development does, or does not, happen in poor rural societies. *Second,* the policy interface between government and society in rural Ethiopia is found at community level; policies, programmes and projects will only produce development if they lead to changes in local ideas, practices, community institutions and structures. *Third,* communities work as complex open social systems constituted by inter-acting economic, political, social, cultural and human sub-systems. A significant change in any of these sub-systems will cause adaptive change in the others, resulting either in positive feedback effects which reinforce the original change or negative feedback effects, which dampen the momentum of the original change. Such negative feedback mechanisms are key factors in 'poverty traps'. *Fourth,* communities are on individual trajectories and the aim of development interventions is to re-direct them onto developmental paths. *Fifth*, while in recent years development interventions have been aimed at the economic development of households and the human development of individuals, these interventions are all delivered by government structures through the prism of the community, in which different kinds of household and individual evolve in social, economic, cultural and political relationships and interactions with each other, often involving inequality, adverse incorporation and exclusion (see chapter on inequalities).

Finally, Ethiopia's rural livelihood systems, as noted earlier, are quite diverse, even within *weredas*, posing deep problems for the macro-design and implementation of economic policies and programmes appropriate to particular local conditions, especially since there is currently little accessible information about how local livelihood systems and communities work and the relative prevalence of different types. While there are regular criticisms of 'one-size-fits-all' approaches to development interventions, such approaches actually fit well with the current analytical framework used by government and donors. This mostly relies on quantitative data on households and individuals, and seeks to generalise rather than identify the differences which matter. We have not yet seen the development of a rigorous practical methodology for developing a set of 'sizes' to fit the different types of livelihood, *kebele*, and *wereda* which constitute the 'all'. A national research and evaluation focus on communities would allow for the accumulation of knowledge, which could be used to develop and monitor a portfolio of programmes in the different sectors appropriate to the different initial conditions found in differing types of community.

Why qualitative data and a case-based approach?

Improvements in computer capacities and speeds have led to rapidly growing interest in case-based approaches to empirical research, a related useful literature, and software programmes for linking interpretations of qualitative data with analyses of quantitative data.

[1] In some cases these were not totally coincident with the boundaries of the communities studied in 1995 and/or 2003. In one case, Dinki, the 1995 *kebele* had become a *got* in a much larger kebele by 2010.

The complexity social science approach which underpins the WIDE3 programme relies on case-based methods which have been the subject of a Handbook (Byrne and Ragin 2009), which contains examples of a range of case-based methods and techniques[2] . Byrne argues 'that integrated accounts constructed around a complexity frame offer the best narratives for describing change (2001:74)'. In order to achieve such accounts he advocates the use of four processes in a practical complexity social science: exploring, classifying, interpreting and ordering.

A possible charge that will be made by those who are not convinced by the conclusions we have drawn from the research is that they are 'anecdotal' because the data lying behind them (1) only refer to twenty sites which are not 'representative' of Ethiopia's rural communities and (2) have been 'collected' through procedures which have not 'controlled for' interviewer bias.

With regard to the first charge we fully accept that these communities are not 'representative' in the way that an appropriately-sized sample selected randomly would be. However, they were chosen by economists designing a conventional random sample household survey[3] for quantitative analysis as 'exemplars' of different types of rural community, and we have applied some well-accepted case-based methods to the data. Through a process of case analysis and comparison we have provided narratives for each community,[4] looked for commonalities and differences across the sites in relation to modernisation processes and the impact of interventions on the communities and people within them, and located each of them in the wider Ethiopian context through a process of typologising, which we hope can be expanded.

With regard to the charge of interviewer bias we would argue that empirical data are not 'given' or 'collected'; whether they are based on surveys, interviews, or participant observation they are always made and recorded by people involved in a process of interaction with other people. Furthermore, all data analysis, including the most technical of econometrics, relies on processes of interpretation involving many judgments. During the process of making our data the skilled, experienced and trained fieldworkers had to translate questions and probes in English into the appropriate local language, informants had to interpret and answer the questions in the light of their particular experiences, the fieldworkers had to engage in dialogues with the informants to follow-up on potentially interesting topics, translate the answers into notes and the notes into written narratives. Finally, we, the report writers, had to make some sense of a vast set of narratives coming from the perspectives of a range of different people involved in the development of the community including *wereda* officials, *kebele* officials, elders, militia, women's association leaders, ruling party members, opposition party supporters, farmers and their wives, women heading households, rich, middle wealth, poor and very poor people, health centre employees, extension workers and teachers, old people, young men and women, and children.

Given this complexity, how have we worked to maximise the validity of our conclusions? *First,* our qualitative data were made using protocols which contain instructions about the broad questions to be asked discursively with probes to make sure important aspects are not missed, details of what kinds of people should be asked to respond, and a space for the interviewer to follow-up interesting responses and add observational data and comments. The design is theory-based. Protocols produce narrative data about the case in question. Protocols can be applied in any number of cases and the narrative data can be coded and quantified. Types of respondent appropriate to the question are

[2] These include explanatory typologies in qualitative analysis, cluster analysis, correspondence analysis, classifications, Bayesian methods, configurational analysis including Qualitative Comparative Analysis (QCA), fuzzy-set analysis, neural network analysis, choice of different types of cases for comparison (e.g. most different cases with a similar outcome; most similar cases with a different outcome), computer-based qualitative methods, ethnographic case studies, and a systems approach to multiple case study.

[3] The Ethiopian Rural Household Survey https://www.ifpri.org/publication/ethiopian-rural-household-surveys-erhs-1989-2009 accessed 28/09/16

[4] See twenty Community Reports on the Ethiopia WIDE website http://ethiopiawide.net/publications accessed 29/09/16.

selected e.g. rich/poor, teacher/student/parent and asking the same questions of people of different types provides multiple perspectives and allows comparative analysis.

Second, we set in place a data interpretation/analysis process where first we built descriptive evidence bases combining answers from all the modules and which referred back to them. These evidence bases were revised after the fieldworkers had read and commented on them and were used in a process involving a first stage of interpretation and abstraction to construct Final Report annexes. Drafts written by each of the report writers were read by the others; when facts or conclusions were challenged the writer had to refer back to the data in the modules and if necessary make changes to the annex

Why a complexity social science methodology?

Using ideas from complexity science and theory our complexity social science approach[5] pays attention to ontology – what is the world *really* like? and epistemology – how can we know about it? In relation to that part of the world we are looking at here – rural communities and their members – we conceptualise them as complex social and human systems which are *open*, as they depend on and interact with their environments, and *dynamic*, as they co-evolve with the open systems which make them up, constitute their contexts, and overlap with them. Our approach to knowledge is that it too is imbricated in historically changing complex systems, so that what we can know is contingent and provisional, pertaining to a particular context and a certain time-frame. However, this does not mean that 'anything goes'. We are committed to the institutionalised values and methodological rules of social science which include establishing an Evidence Base to which we can return if questions arise.

From complexity ontology we take a number of key messages. Initial conditions matter and trajectories are path dependent. Systems and their elements have different timeframes and co-evolve. Systems can change rapidly but systems with strong 'control parameters'[6] (see below) are resistant to change. Complex social systems have material, technological, social, economic, political and cultural dimensions and are constituted by elements in relationships. Structurally embedded heterogeneous *creative* agents with interests are organised in unequally structured sub-systems. In the development world these sub-systems include households, communities, kingroups, formal and informal enterprises, NGOs, political parties, donors, government, transnational companies etc. System structures involve unequal role, relationship and resource structures and have varying connectivity in different parts of the system. In some parts networks of relationship may be dense, in others there may be structural holes, and some people may be excluded from participation in many areas of the system.

Complexity theory tells us a number of things of relevance about ways to know about complex systems. Research is usually exploratory rather than confirmatory, the aim being to identify common processes and mechanisms rather than 'laws' or generalisations. Frameworks and methods depend strongly on the research question. There is continuous interaction and iteration between ideas and the field. Quantitative and qualitative data are seen as different kinds of 'traces' of the passage of the communities through time/history. Quantitative data tells you *how much* of the research object of interest there is while qualitative data tells you *what kind* of thing it is. More than one description of a complex system is possible; different descriptions decompose the system in different ways.

Complexity social science is particularly useful for informing policy.[7] It is essentially a frame of reference for understanding what things are like, how they work, and how they might be made to

[5] For more on this see Bevan 2009.
[6] In the case of rural communities these might include the weather, a well-entrenched culture, and/or a hierarchical unequal power structure.
[7] See for instance Bevan 2010a.

work better. When complex systems are far from equilibrium and potentially ready to move in a new direction, there is a period of 'chaos', where they seem to dither between potential alternative futures or 'attractor states' before settling for one. Accumulation of knowledge and understanding about transitions in communities that have already made them could be used to design interventions promoting potential good transitions and deterring bad ones.

Different types of community are on different development trajectories and what may be a possible development future for one type will not be possible for another type. Typologies and typological theorising can be used to identify ensembles of communities in similar situations and their control parameters and to explore what the more successful are doing that might be copied by the others, which might be something relatively simple.