

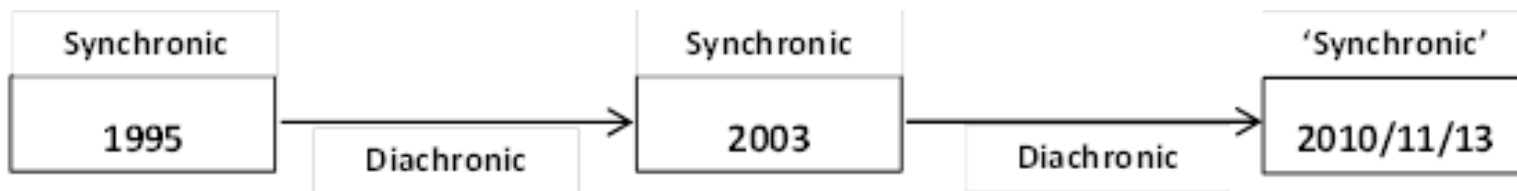
Change and continuity in rural Ethiopia 1994 (and before) to 2013 (and beyond):

a longitudinal study of twenty communities
using complexity methods

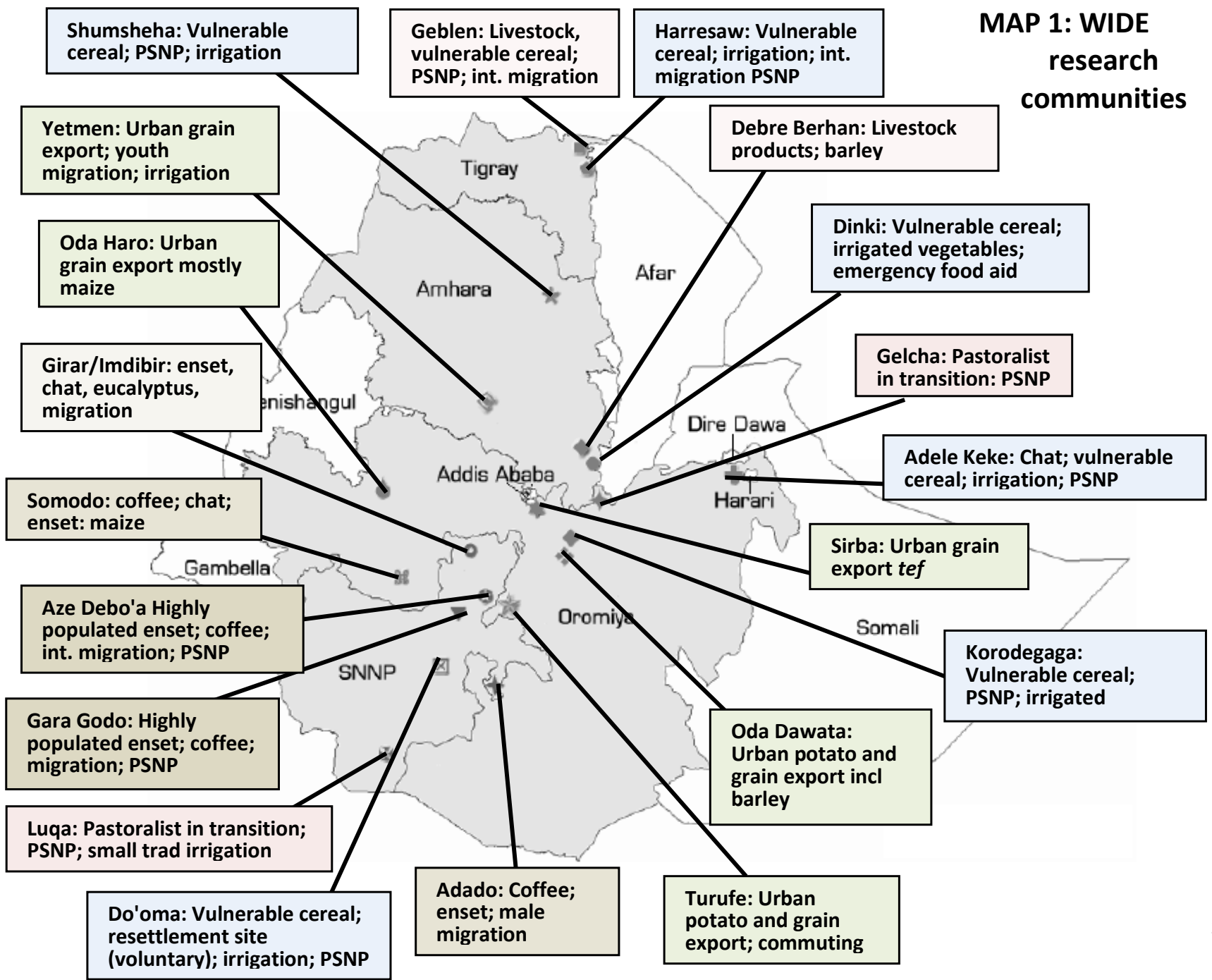


The WIDE research: 1994/5, 2003 and 2009-2013

- **WIDE1 1994/5** (Bevan, Pankhurst + Ethiopian social scientists)
 - Centre for the Study of African Economies at Oxford University and Department of Anthropology at University of Addis Ababa funded by Overseas Development Administration
 - Village Studies to complement a panel Ethiopian Rural Household Survey (ERHS six rounds 1994-2009) launched in **15 communities** selected by economists as **exemplars of Ethiopia's main rural livelihood systems**
- **WIDE2 2003** (Bevan and Pankhurst + Ethiopian social scientists)
 - Funded as part of the 5-year ESRC Wellbeing in Developing Countries (Development Studies) research programme at University of Bath: **20 communities** (15 from 1995 + 5)
- **WIDE3 2009-2013** (Bevan, Pankhurst and Dom + Ethiopian social scientists)
 - Funded by contributions to a World Bank Trust Fund by UK, Holland and Canada
 - All **20 communities** in three stages: 2010 (6); 2011/12 (8) 2013 (6)



MAP 1: WIDE research communities



COMMUNITY	FIELD-WORK	LOCATION	LIVELIHOOD BASE*	IDENTITY GROUPS	REGION
<i>DROUGHT-PRONE AND REGULARLY DEPENDENT ON FOOD/CASH-FOR-WORK</i>					
Gara Godo	Late 2011	Remotish but new municipality	Drought-prone & highly-populated; gardens – cash-crop coffee, root crops, fruit & vegetables; other land grain; PSNP	1 ethnicity 2 religions	SNNP
Aze Debo'a	Late 2011	Near zone town but remotish	Drought-prone & highly-populated; gardens – cash-crop coffee, root crops, fruit & vegetables; also grain; migration; PSNP	1 ethnicity 1 religions	SNNP
Luqa	Late 2011	Very remote	Vulnerable pastoralist + small irrigation + Emergency Food Aid (EFA)	1 ethnicity 2 religions	SNNP
Do'oma	Late 2011	Nr <i>wereda</i> town but very remote	Vulnerable cereal + some irrigation + migration + PSNP	3 ethnicities 2 religions	SNNP
Adele Keke	Late 2011	Near rapidly expanding Haramaya & on main road	Cash-crop <i>chat</i> [some exported to the Gulf] + vulnerable cereal; irrigation + PSNP; commuting for urban work	1 ethnicity 1 religion	Oromia
Gelcha	Late 2011	Near town & main road but remote	Pastoralist in transition + small irrigation + PSNP	3 ethnicities 2 religions	Oromia
Korodegaga	Early 2010	Remotish	Vulnerable cereal + some irrigation + migration + PSNP	1 ethnicity 1 religion	Oromia
Shumsheha	Late 2011	Peri-urbanish - near Lalibela town	Vulnerable cereal - sorghum, teff, beans, some irrigation + migration + PSNP	1 ethnicity 2 religions	Amhara
Dinki	Early 2010	Quite remote	Vulnerable cereal + some irrigation + migration + EFA	2 ethnicities 2 religions	Amhara
Geblen	Early 2010	Quite remote	Livestock – central role but vulnerable to drought; vulnerable cereal + a little irrigation + migration + PSNP	2 ethnicities 2 religions	Tigray
Harresaw	Late 2011	Quite remote	Vulnerable cereal + some irrigation + migration + PSNP	1 ethnicity 1 religion	Tigray
<i>INDEPENDENT ECONOMIES IN AREAS WITH ADEQUATE RAIN</i>					
Girar	Early 2010	Outskirts of <i>wereda</i> town but remotish	Highly populated; gardens - <i>enset</i> + cash-crop <i>chat</i> & eucalyptus+ migration	1 ethnicity 4 religions	SNNP
Adado	2013	Quite remote	Gardens: cash-crop coffee, <i>enset</i> , barley, maize + migration	1ethnicity 1+ religions	SNNP
Turufe	Early 2010	Peri-urban - increasingly near to expanding Shashemene	Food surplus & cash crop potatoes & grain; commuting for urban work	5+ ethnicities 4 religions	Oromia
Sirba	2013	Industrialising - on main highway between Bishoftu and Mojo – 20km to each	Food surplus + cash crop grain (<i>tef</i> , wheat) + commuting + migration	1 ethnicity; 3 religions	Oromia
Oda Dawata	2013	On main road between Adama and Asela	Food surplus + cash crop potatoes & wheat + migration	1 ethnicity, 3 religions	Oromia
Oda Haro	2013	Remotish – 16 km east of Bako	Food surplus + cash crop grain (maize+), oilseed, peppers, <i>chat</i> in 2003 + migration	2+ ethnicities; 3 religions	Oromia
Somodo	2013	Peri-urbanish – 5 km from main road Jimma-Gambella; 20 km from <i>wereda</i> town	Food surplus + cash crop coffee, <i>chat</i> , and grain in 2003 + migration	2+ ethnicities; 5 religions	Oromia
Kormagefia	2013	Peri-urbanish - near Debre Berhan town	Livestock – central role. In good years some crops sold for cash - barley, beans, wheat + commuting + migration	1 ethnicity 1 religion	Amhara
Yetmen	Early 2010	On allweather road but remotish	Food surplus + cash crop grain; new irrigated vegetables; migration	1 ethnicity 1 religion	Amhara

Complexity and the WIDE study

- Understanding of the social world as constituted through time by co-evolving inter-secting dynamic open complex systems
- WIDE 3 - an experiment in applied social science: attempt to influence the impact of the (incompatible) dominant mental models of the Ethiopian government (authoritarian developmental state) and aid donors (economic neo-liberalism, democracy)
- Co-evolving complex systems involved in the WIDE story:
 - Co-evolving academic discipline eco-systems – economics, sociology and ‘development studies’ 1994-2014
 - Co-evolving policy ecosystems – Ethiopian government and donors based in Addis Ababa 2009-2014
 - 20 Ethiopian rural community systems co-evolving with encompassing, nested and inter-secting systems <1994-2013 and into the future
 - Within the communities – co-evolving development intervention systems – e.g. infrastructure, health, food aid, agriculture, local government etc

The macro context in which the communities evolved

- *Imperial state 1890s-1974*: 1896 Italians **Emperor Menelik II** defeats the Italians at the battle of Adwa; **Ethiopia did not become a colony**; Menelik led the imperial expansion by 'Abyssinia' to the south, west and east
- Haile Selassie became Regent in 1916 and **Emperor** 1930 – 74; 1936-41 Italian invasion; some state-led modernisation; 1973/4 famine; 1974 military coup
- *Military/socialist regime 1974-1991*: political terror; **Mengistu Haile Mariam** leader 1977; support from the Soviet Union; land nationalised, agriculture collectivised, clamp down on religion, equality for women etc; famine 1984; overthrown by rebel factions led by Tigrayans 1991
- *Revolutionary socialism/Developmental state 1991* →: EPRDF, Meles **Zenawi** Tigrayan 1991-2012 (died); ethnic federalism 1995; Eritrea war 1998-2000; religious freedom; political control with hiccup in 2005 elections; developmental state ideology; Hailemariam Desalegn (not Tigrayan) PM 2012



- 2002/3 Ethiopia entered an (ongoing) period of rapid ‘modernisation’
 - 2002-5 The first donor-supported ‘poverty reduction strategy paper’
 - 2005-15 PASDEP; GTP
 - 2015-20 Growth and Transformation Plan II currently being designed
- Increasingly penetrating economic, social, cultural and political interventions in rural communities
- 2014 estimated population 94 million; an estimated 25,000 rural ‘communities’

Figure 1. Ethiopia: GDP per capita
(in constant 2010 birr)

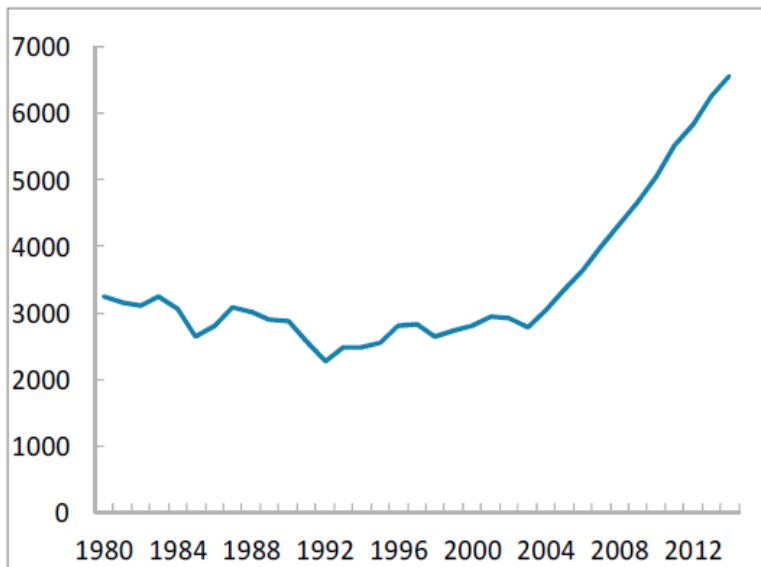
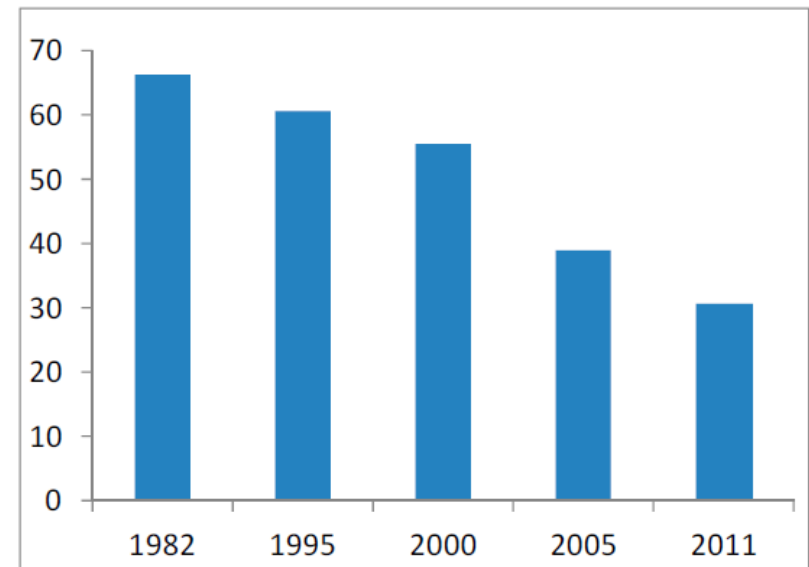


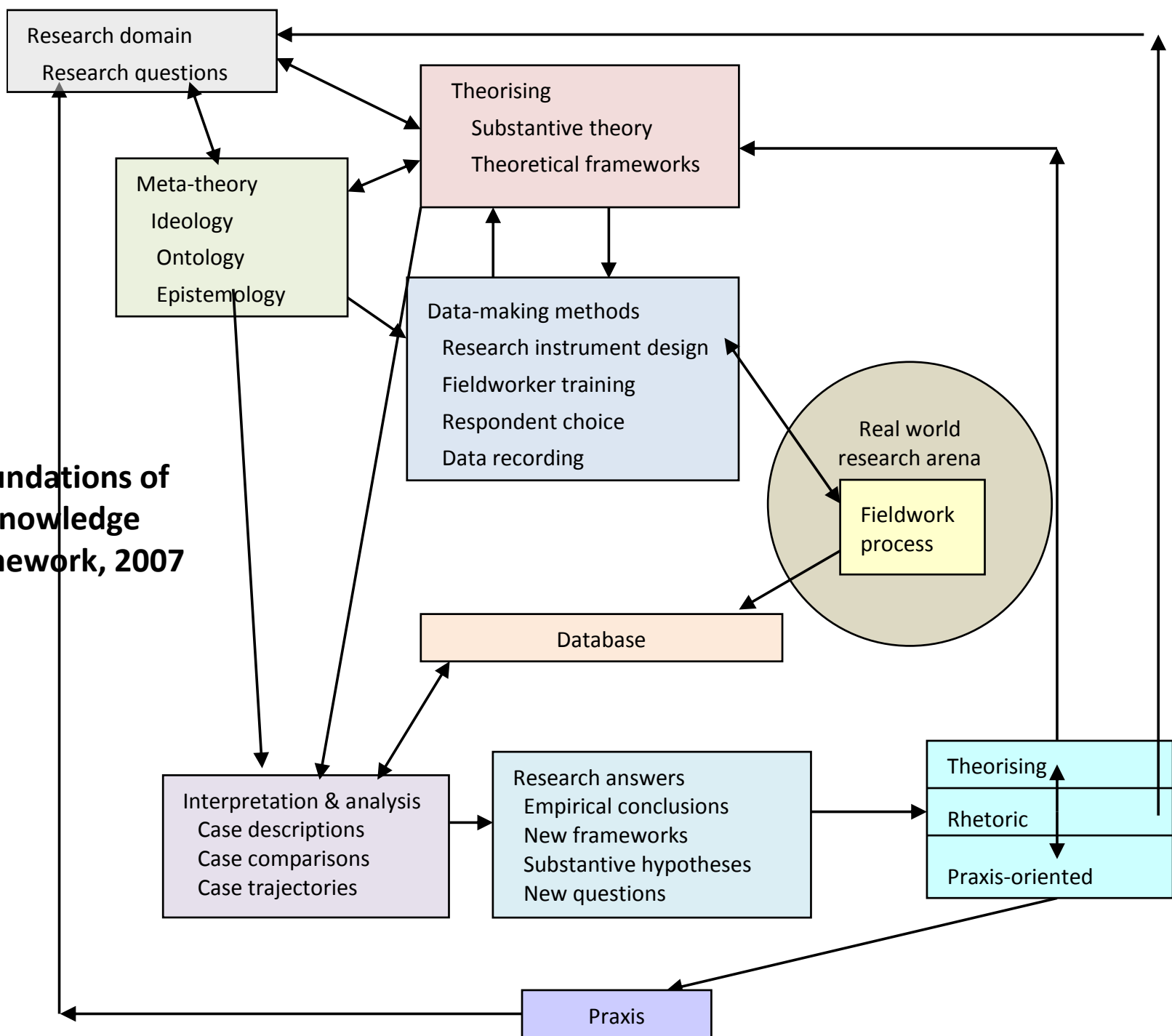
Figure 2. Ethiopia: Poverty Headcount Ratio at US\$1.25 a day (PPP)
(in percent of population)



Development of the complexity methodology and case-based methods

- In the later 1980s development economists joined mainstream neo-classical economics developing new techniques for modelling and econometrics based on regression analyses (mainly of household surveys)
- This move was accompanied by the social construction of two approaches to the study of development – *development studies* pursued by ‘non-economists’ and *development economics* pursued by ‘scientists’; this was associated with the domination of development research budgets by economists
- As the only ‘non-economist’ working at the CSAE I decided to try to develop a well-founded empirical methodology for ‘development studies’ which would challenge the mainstream economics approach
- Main sources over the years:
 - critical realism – especially Sayer 2000 and Archer 1995, 1996
 - complexity theory: Byrne 1998 and subsequent articles and books; Cilliers 1998, Smith and Jenks 2007; Byrne & Callaghan 2013
 - case-based methods - ESRSC seminar Focusing on the Case 2004-5 (led by Byrne & Olsen), Byrne and Ragin 2009
 - complexity and policy – Byrne 2011; Room 2011 & 2014

Foundations of knowledge framework, 2007



Meta- theory: a complex realist ontology

- Ontological realism
 - reality independent of observers exists
 - three levels - real (potential generative mechanisms), actual, empirical
- Geologically and geographically organised planet Earth has a path-dependent history going back to the Big Bang; it is comprised of open and co-evolving complex systems made up of material components at different levels and depends on the sun for energy
- Complex social systems are structured; they are energised by human agents and material, social and cultural non-human 'actants' some of which are embodied in people
- Agents – are different kinds of socio-biological people with human needs
- They are born fe/male, and mature and die in socio-geographic contexts in a historical period; they co-evolve with the households, communities, landscapes, countries, world and other complex systems in which they live
- Agents can only operate in and through structures and complex structures are evolved through the actions of agents

Meta-theory: epistemology and ideology

- Knowledge is imbricated in historically-changing complex systems, so that what we can know is contingent and provisional, pertaining to the context we are working in
- System boundaries are simultaneously a function of the activity of the system and the way it is framed by the researcher (Cilliers)
- Different descriptions of a complex system decompose it in different ways (Cilliers)
- Data are traces of the passage of systems through time (Byrne)
- Complex systems 'are' cases (Byrne, Castellani)
- Ideological commitment to empirical research aimed at being
 - Relevant for improving the life chances of poorest and most vulnerable
 - Scientifically sound
 - Of use to policy-makers and practitioners at all levels

Research domain & questions

Research domain - modernisation, continuity and change in Ethiopia's rural communities since 1991 with a focus on the roles played by development interventions since 2003

Research questions

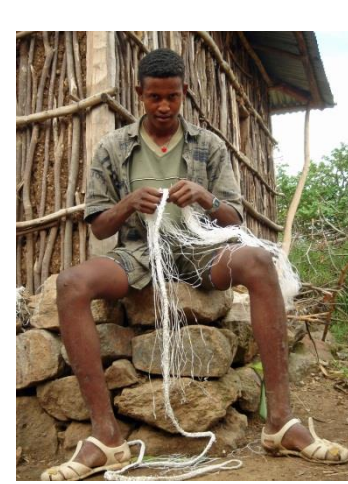
1. *Key features of the communities* at the time of the research
2. *Continuities and changes* since the mid-1990s
3. *Longer-term community trajectories* - where have they come from and where might they be going in the next few years?
4. Differences made to community trajectories by *development interventions* since 2003
5. How did impacts of interventions *vary among different types of community* and why?
6. How *social interactions*, relationships and processes across the development interface affected the *implementation and achievements* of government & donor programmes
7. Impacts of modernisation as a whole, and recent development interventions in particular, on the *lives of the different kinds of people* who live in the communities?
8. How did what happened fit with *government and donor models* of how development ¹²*should* happen?

Theoretical approach to the communities

Five synchronic perspectives on the communities (Cilliers)

- The material system of place and people:
 - non-human actants include the topography, weather, trees, mosquitoes, livestock, buildings etc (next slide)
- Five inter-secting functional sub-systems - domains of power which are simultaneously fields of action
 - livelihoods
 - lives – human re/pro/duction
 - society – social re/pro/duction
 - culture - ideas
 - politics
- Structures of durable inequality – class, status, power & elite formation
- Nested sub-system: households in the community
- Nested sub-system: people in households
 - agents with social positions and personal histories (following slide)

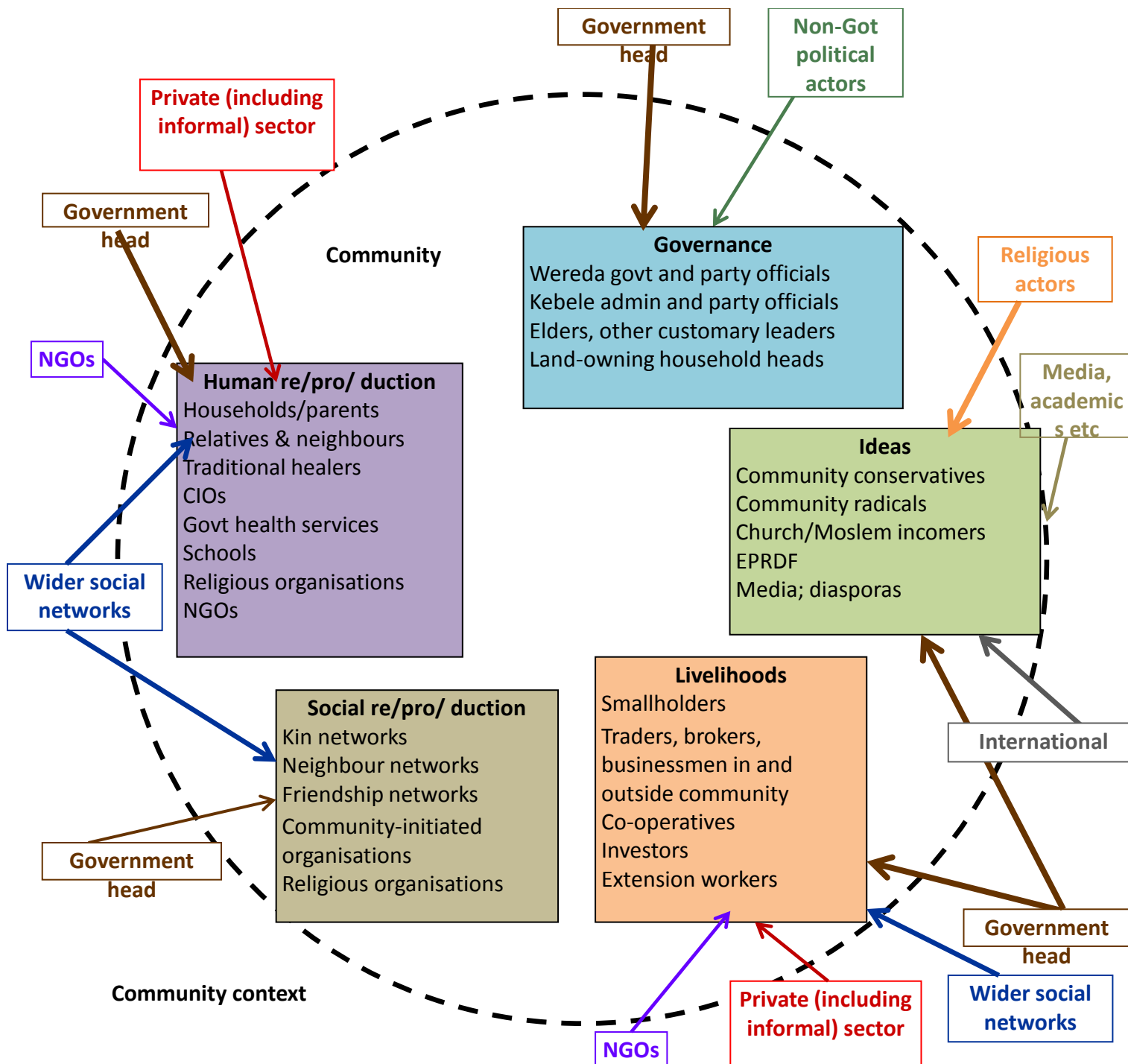




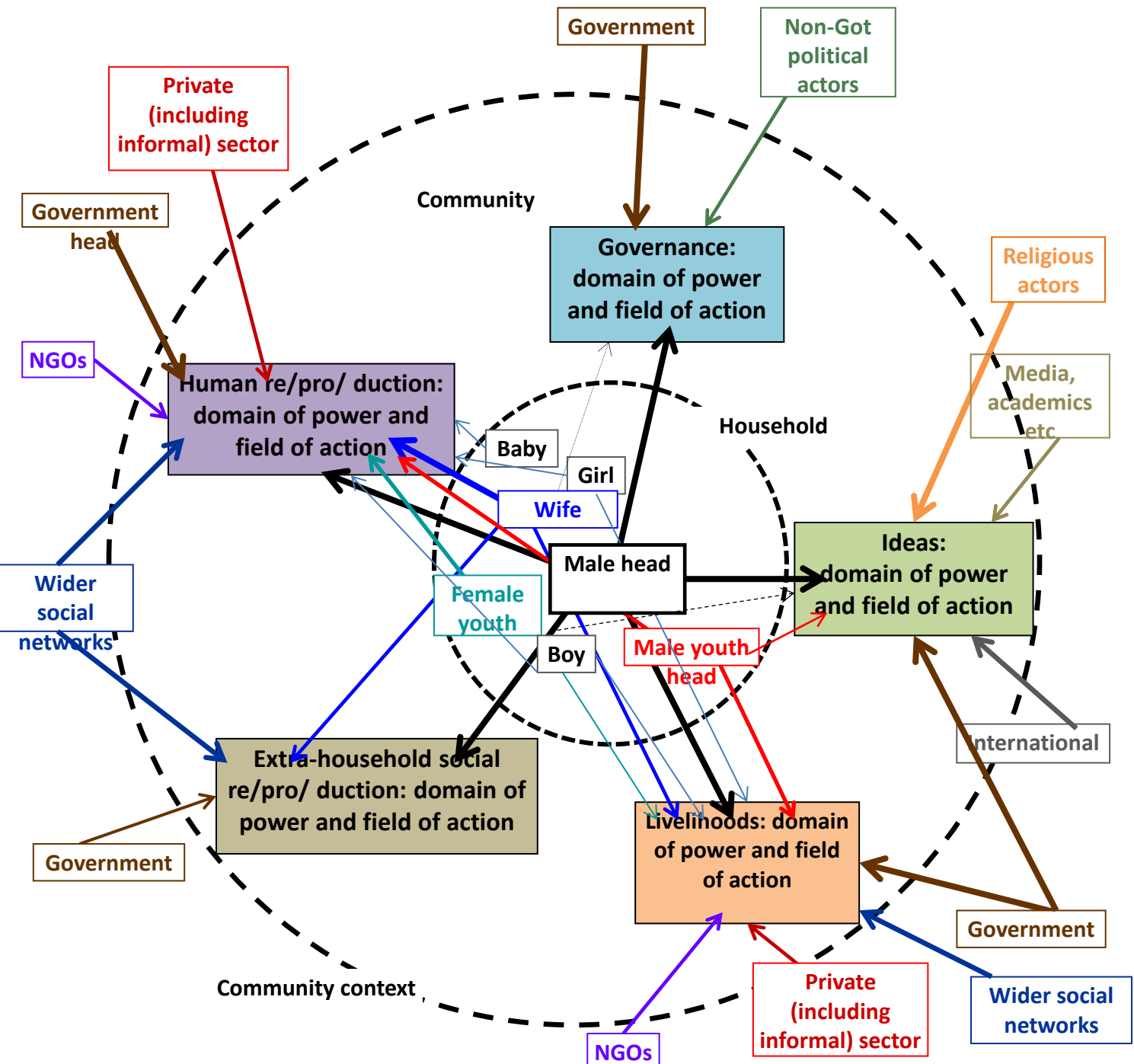
Theoretical approach to the communities (2)

- Inequalities among households places them differently in community structures
- Different kinds of people are differentially active in the different domains
 - Genderage differences
 - Household wealth/poverty differences
 - Other locally salient differences
- Time patterns people's activities
 - Most importantly seasonality
 - Religious observances, festivals, school terms, market days, political meetings, etc

The functional sub-systems and their extra-community links

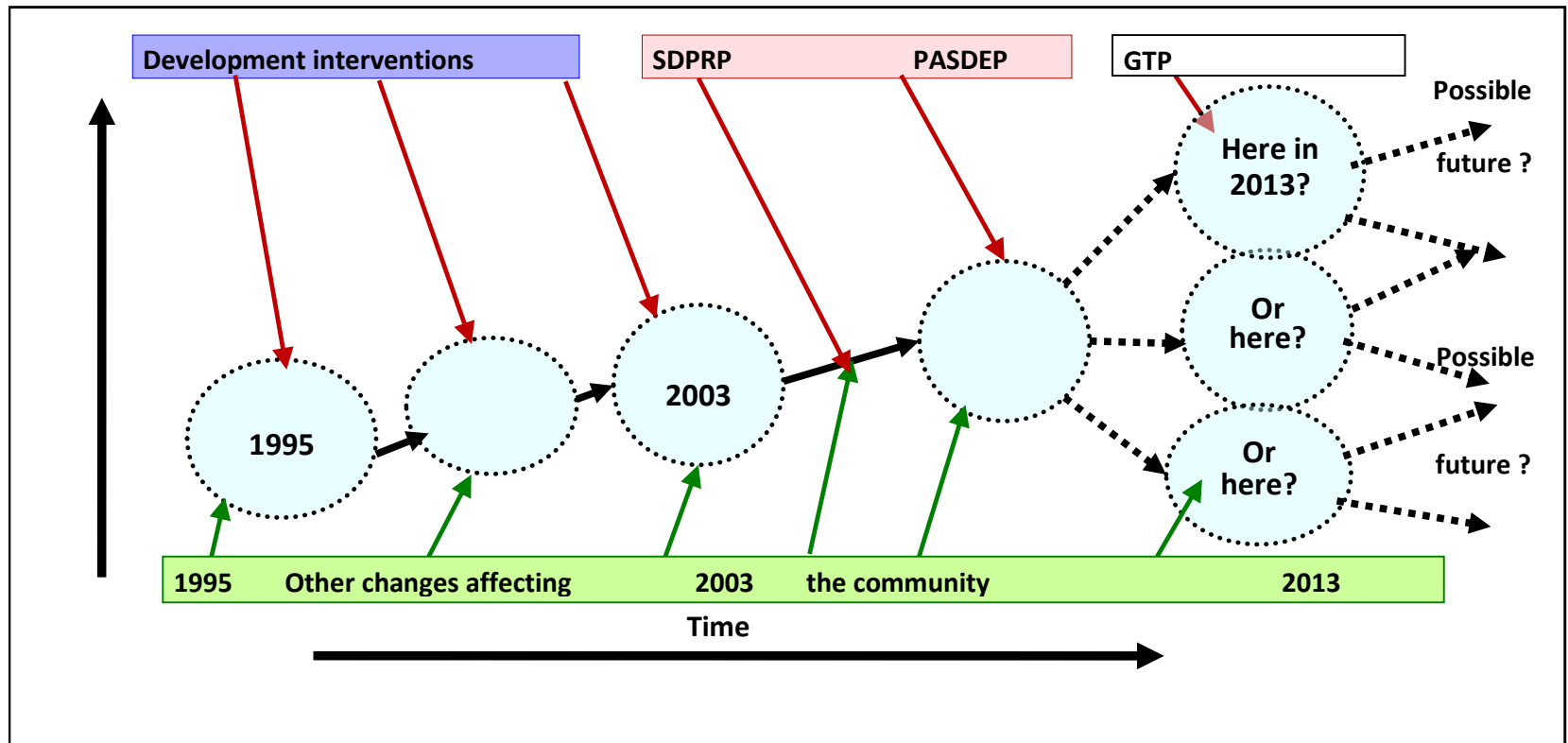


Inter-sections among households, people and the functional sub-systems



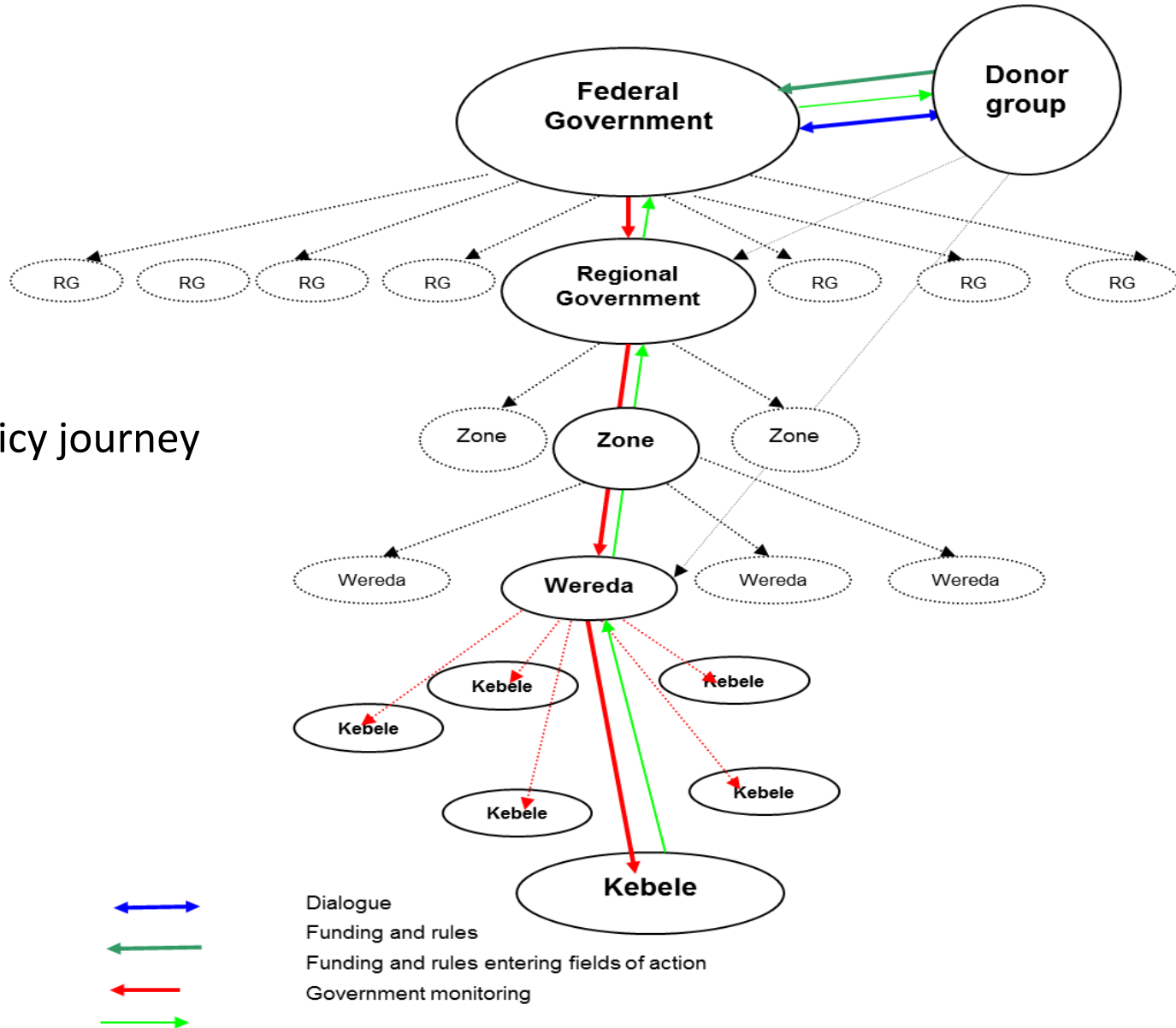
Frameworks for exploring the impacts of development interventions

- Since the early 2000s rural and pastoralist communities throughout Ethiopia have experienced accelerating processes of change in all dimensions of life
- When considering a particular intervention - all sorts of other things are going on (including other interventions)



Frameworks for exploring the impacts of development interventions

The policy journey

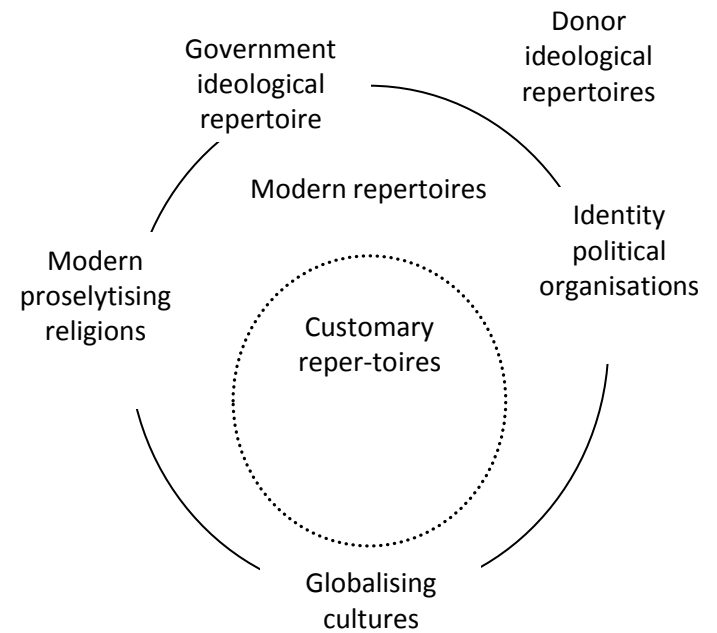
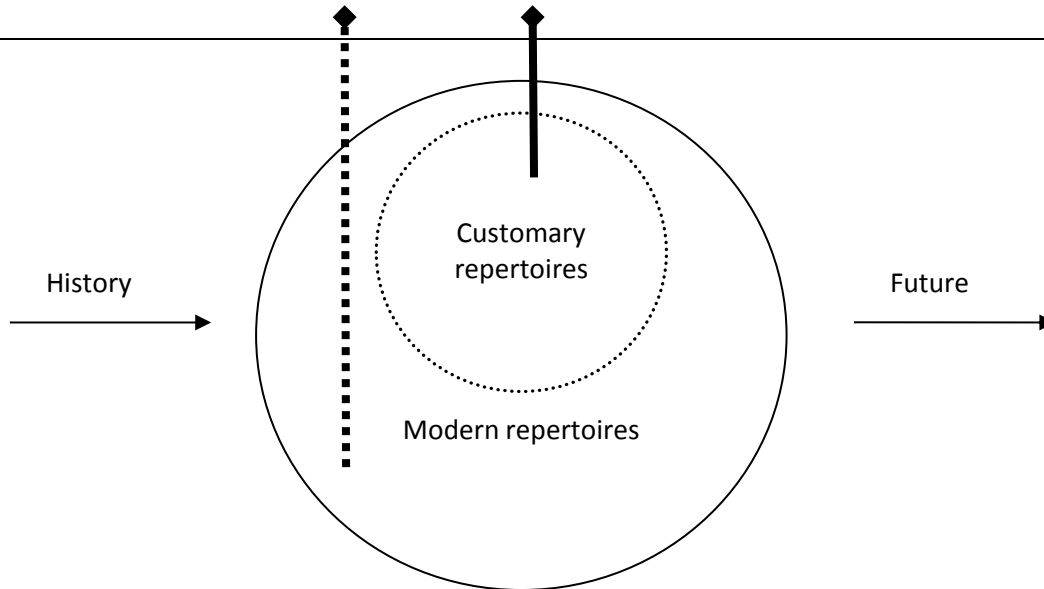


Frameworks for exploring the impacts of development interventions

Top-down Interventions

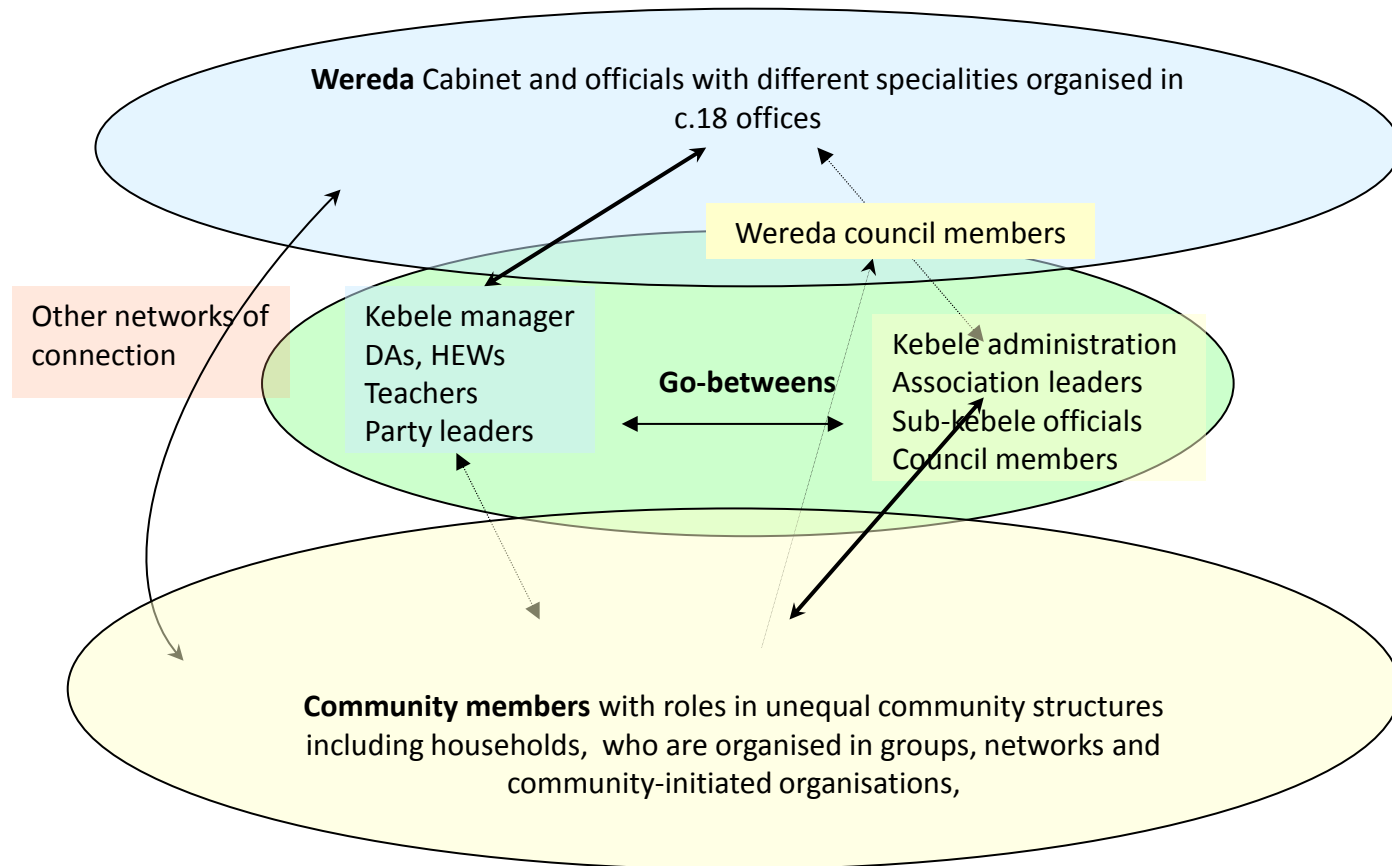
Local repertoires under pressure

Health	Education	Agriculture	Environment	Etc
Goals Purposes Outputs – targets –M & E Activities – implementation manuals Assumptions	Goals Purposes Outputs – targets –M & E Activities – implementation manuals Assumptions	Goals Purposes Outputs – targets –M & E Activities – implementation manuals Assumptions	Goals Purposes Outputs – targets –M & E Activities – implementation manuals Assumptions	Goals Purposes Outputs – targets – & E Activities – implementation manuals Assumptions
↓ DISCONNECT IN AIMS AND ASSUMPTIONS ↓				

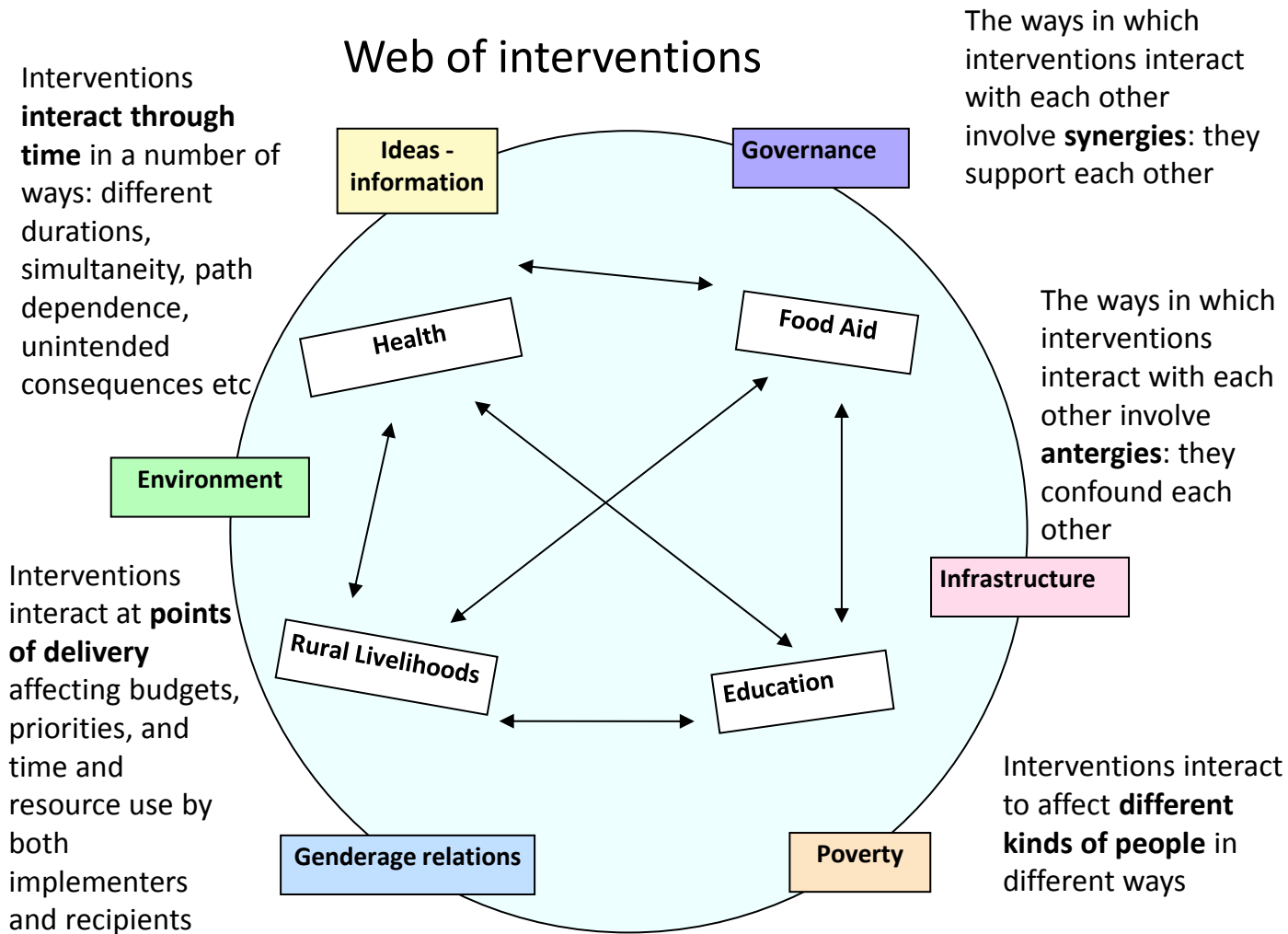


Frameworks for exploring the impacts of development interventions

- When an intervention is implemented in a community there are complex social interactions
- What ensues is usually rather different from what was planned



Frameworks for exploring the impacts of development interventions



During Stage 3 from the data we made a list of 103 interventions potentially entering rural communities in 2013



From theoretical frameworks to
database:
who to ask what, how and when and how to
record the answers



Assembling data traces of complex system trajectories

- Variate list, designing modules, training researchers, production of report documents (next slide)
- Castellani– data-making process is iterative, evolving and dynamic – pushing the database to grow and change as frameworks are applied
- Questions and methods in WIDE3 Stage 1 were informed by the research conducted in WIDE1 and WIDE2
- Experiences during earlier WIDE3 Stages were used to make improvements to later ones
- In each of the three Stages of WIDE3 there were two separate fieldwork visits with the second designed in the light of learning from the first

Phase 1		
Module 1	<i>Wereda</i> perspective	Wereda administrator Head of the health office Head of the office responsible for credit and saving Head of the office responsible for drinking water Head of the women and child affairs office
Module 2	Community trajectory 2003-13	Knowledgeable people individually and/or in small informal groups Kebele chair
Module 3	<i>Kebele</i> perspective	Public Works organiser Cabinet information officer
Module 4	Farming	Successful Model Farmers Different kinds of trader
Module 5	Non-farming activities	People involved in manufacturing and service enterprises Key informant on employment
Module 6	Young people's perspective	Male and female rich, middle and poor 19 year-olds, 16 year-olds and 13 year-olds
Module 7	Households & interventions	Economically successful farmer and wife; successful business man and wife; middle wealth farmer and wife; poor farmer and wife; successful woman heading household; poor woman heading household Kebele manager DAs' group + vet HEWs' group Head teacher Youth leaders Development team leaders 1-5 leaders Woman leader Service Co-op leader Formal credit organiser Leading famer Woman Model farmer Leading trader of farm products Leading businessperson Best economist Urban linked opinion leader Irrigation expert Returned migrants Customary leaders Religious leaders NGO worker Research officer selected informants
Module 8	Key informants' experiences & perspectives	Various respondents
Module 9	Fact sheet	Research officers
Module 10	Fieldworker daily diary	Research officers
Module 11	Election notes	Research officers
Phase 2		
Modules 1-7	Important happenings since Fieldwork 1 in April	FW1 good informants; FW1 household respondents; youth political leader; 19 year-olds, 25 year-olds; kebele chair, kebele manager, party leader, traders; business(wo)man; DA; lead young farmer; model farmer; Sub-kebele, Development Team and 1-5 leaders
Module 8	Gaps from Fieldwork 1	Various respondents
Module 9	Fieldworker daily diary	Research officers
Module 10	Research officer topic if desired	Research officers
Module 11	Seasonality of activities	Various respondents

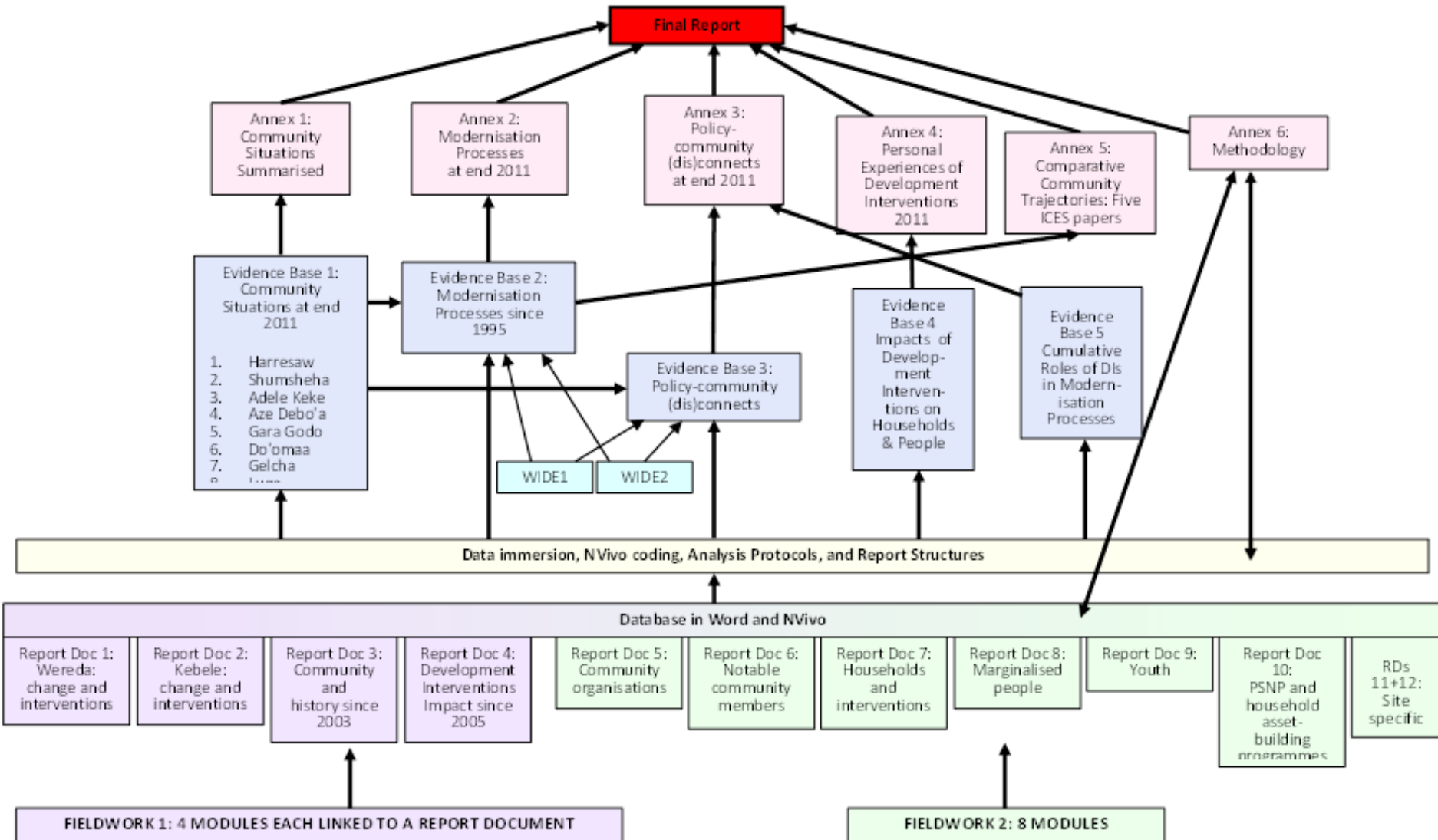
The WIDE3 Stage 3 research modules

- Produced list of variates to be traced relating to the 5 fields of action
- Modules in the form of structured protocols to guide interviews
- Variate list used in the design of the modules
- 1 male and 1 female research officer in each community
- Fieldwork notes written up in structured report documents matching the modules

Interpretation and analysis: iterations between ideas & evidence

- Narratives
 - Writing of individual community cases studies ordered under four main headings (the community as a whole, households, structures of inequality, and fields of action/domains of power with detailed sub-headings)
 - Narratives describing long-term trajectories of each of the communities; identification of changes of control parameters since 1995 and ongoing contextual changes to take the narrative into the future
- Case comparisons
 - Synchronic comparative analysis: began in de-briefing workshops for research officers and taken forward in the dissemination workshops on different topics
 - Developed comparable matrices for each of the communities for each of the WIDE stages
 - One aim to identify common mechanisms as well as differences associated with different types of community
 - Also used to identify changes through time in one community and compare sectoral policies and changes across sites

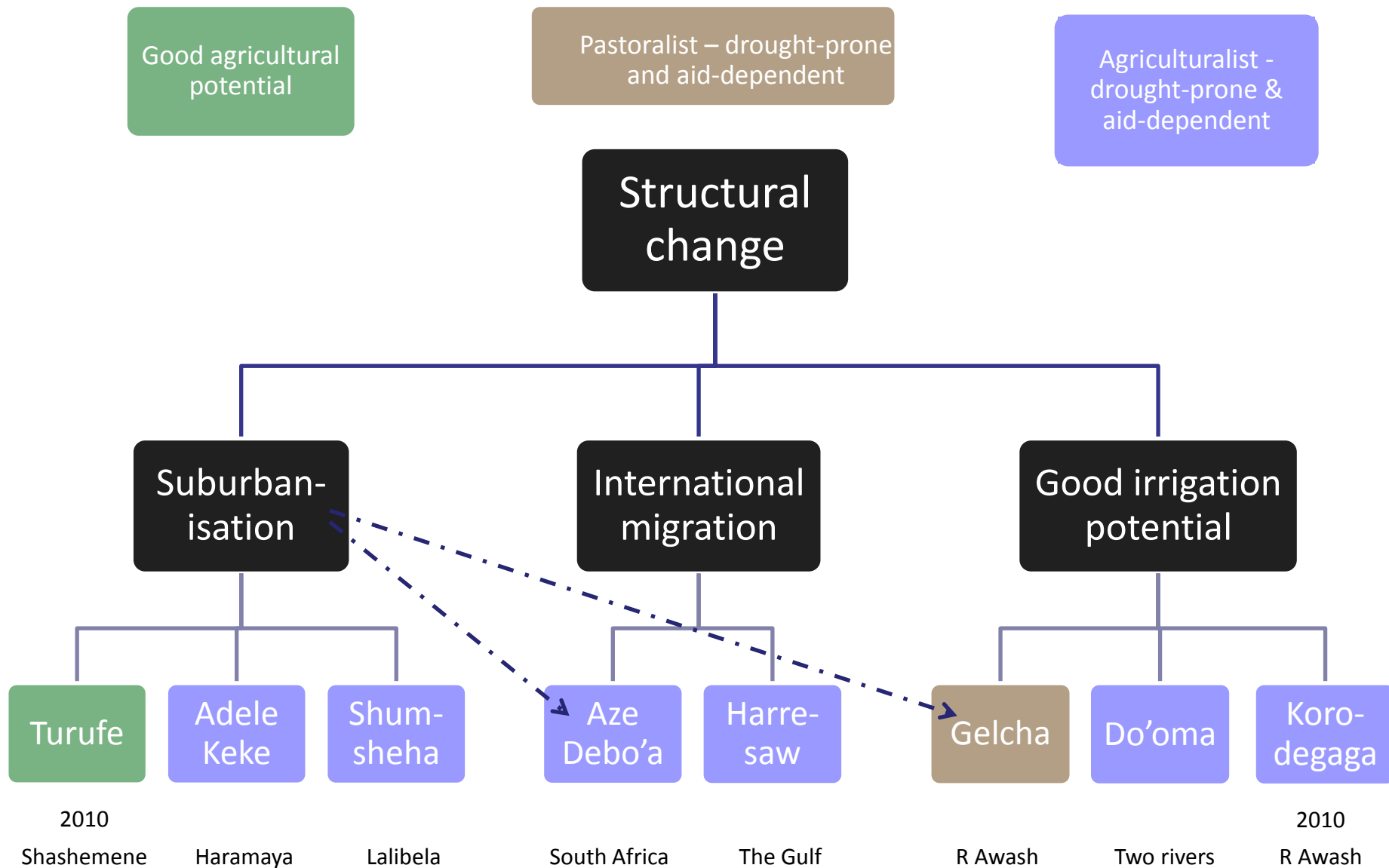
Writing the final report (Stage 2): compressing the data



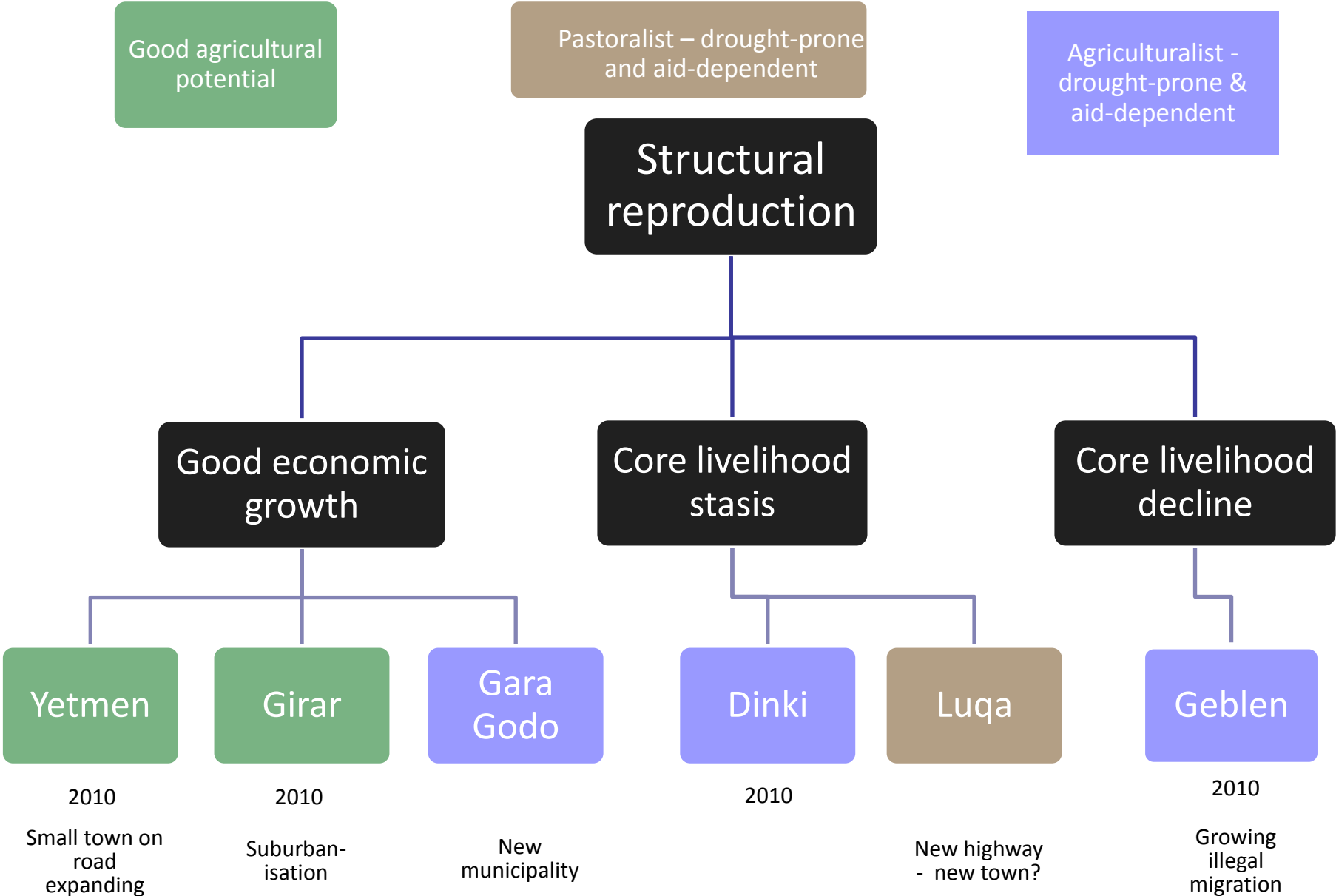
Different types of research answer

- Empirical conclusions
- New theoretical frameworks
- New substantive theorising
- New research methods
- New questions/angles

Empirical conclusions: communities on the edge of change 2010/12



Empirical conclusions: communities on the same path 2010/12



New theoretical frameworks

Example: framework for comparing intervention design & implementation

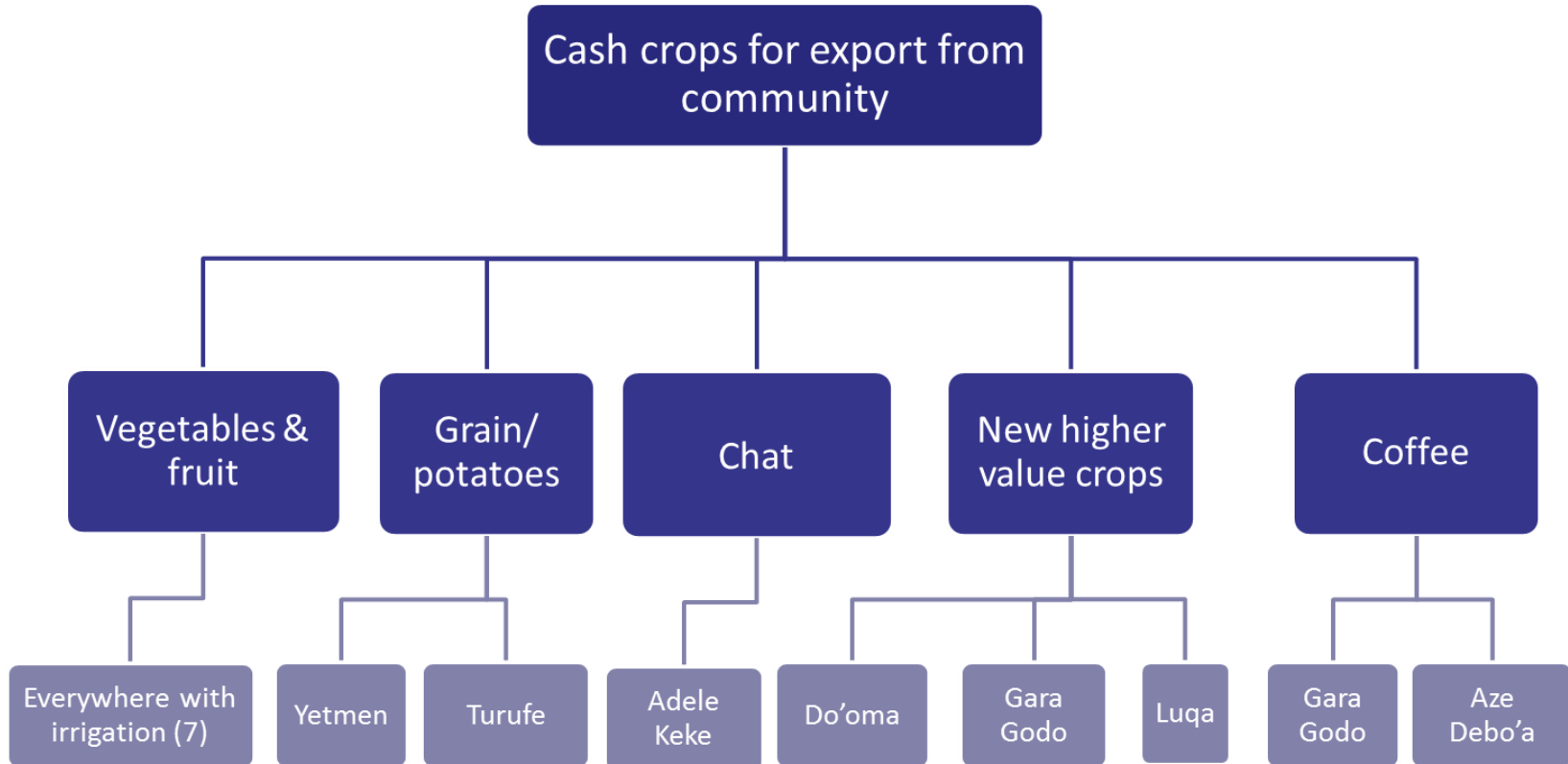
Development intervention processes		Theory of change in design	Implementation realities
Social construction of intervention	Roles of implementers, beneficiaries etc		
	Material infrastructure & inputs		
	Systems, rules and routines		
	Time-frame for activities, inputs, outcomes		
Social mechanisms for influencing the behaviour of beneficiaries and other community members	Legislation and administrative <i>fiat</i>		
	Material & status incentives		
	Targets		
	Threats, fines & imprisonment		
	'Awaring' and training		
	Dialogue and participation		
	Targeting models, learning by doing & copying		
Social mechanisms for influencing the behaviour of intervention implementers	Organising and mobilising pressure from others		
	Instructions		
	Targets & reporting		
	<i>Gimgema</i>		
	Opportunities for training		
Outcomes	Promotion and demotion		
	Place outcomes		
	People outcomes		
Collective responses to the interventions	Functional sub-system outcomes		
	Co-operation	32	
	Resistance		
Complexity			

Substantive theorising

Control parameter areas		Parameters identified as potentially important for the communities studied
Internal parameters	Place	Terrain, settlement, climate, ecology
		Remoteness - connections with wider world
	People	Current human resources & aspirations, well-/ill-being, individual agency
	The state of the local human re/pro/duction system	Human re/pro/duction institutions, demography
	The state of the local economy	Farming system
		Livelihood diversification
		Economic institutions
	Social integration	Community fault-lines & organised collective agency
	Cultural integration	Cultural repertoires of ideas
Political integration	Government-society relations & political settlement	
Contextual parameters	External aspects of inter-secting functional systems	E.g. market systems, education systems, wider religious systems, clan organisations
	Encompassing meso systems	State of meso system: economy, society, culture, politics
	Encompassing macro systems	State of country and global systems: economy, society, culture, politics

New questions/angles

- Example - community variates can be defined as complex systems/cases e.g. irrigation, migration, roads, livelihood diversification, cash crop export (example from Stage 2)



- These different types of cash crop have different value chains linking communities to different commodity systems

Engaging with policymakers to inform praxis

- Aims
 - to give them some understanding of the people and societies they are targeting with interventions
 - to describe the problems faced by women, young people, children, and all poor, vulnerable and excluded people, and the effects (or lack of effects) of their interventions on them
 - to describe how interventions in the different sectors were playing out in different contexts
 - to show how different types of community are facing different kinds of futures in the context of extremely rapid modernisation of agriculture, urbanisation, and industrialisation in some parts of the country
 - to show government and donors planning for the next 5 years what is possible and not possible in the future for the different kinds of rural community and to try to get them talking about practical matters
- Means
 - Rapid Briefing Notes, reports, academic papers circulated to Worknet (c100)
 - Meetings with government and donor policymakers (next slide)

Date	Research stage	Engagement with government and donors during WIDE3
Nov-Dec 2009	Stage 1	Workshops and meetings to present the research Stage 1 plan and consult on key topics of interest, with 4 donor groups
April 2010	Stage 1	Presentation of early findings from Stage 1 to the Netherlands Embassy , at their request
June 2010	Stage 1	Dissemination meetings/workshops on Stage 1 main findings for discussion, with 6 donor groups specialising in different sectors
September 2011	Stage 2	Consultation meetings to present Stage 2 plan and consult on key topics of relevance, with 7 donor groups
December 2011	Stages 1 & 2	Dissemination workshop convened by EDRI for government officials from various agencies, to present the Stage 1 findings and plan for Stage 2
February 2012	Stages 1 & 2	Meeting with Dr Abraham Tekeste, State Minister MOFED , to present WIDE3 Stage 1 key findings and Stage 2 plan
June 2012	Stage 2	Dissemination meetings/workshops on Stage 2 main findings for discussion, with 6 donor groups
June 2012	Stage 2	Dissemination workshop convened by EDRI for government officials from various agencies, to present Stage 2 preliminary findings and plan for Stage 3
Feb/March 2013	Stage 3	Consultation meetings to present Stage 3 and consult on key topics of relevance, with 2 donor groups
May 2013	Stages 2 & 3	Focusing on Stage 2 findings and ongoing Stage 3 research with DFID
October 2013	Stage 3	Dissemination meetings/workshops on Stage 3 findings from first fieldwork with a view to inform second, gap-filling fieldwork, 3 groups
October 2013	Stages 2 & 3	Meeting with Dr Abraham Tekeste, State Minister MOFED , and Ato Tefera Deribew, Minister of Agriculture (separately) to present Stage 2 & Stage 3 main/preliminary findings and the discussion brief process
March 2014	Stage 3	High Level Discussion Forum on Policy Implications of WIDE3 research findings – with senior government officials including GTPII lead designer focusing on five topics
March 2014	Stage 3	Discussion Forum on WIDE3 briefs – with World Bank and other donors

Acknowledgements

- Alula Pankhurst, Catherine Dom, a multitude of other researchers in Ethiopia and the UK, and the men, women, youth and children who answered the questions.
- Photographs by Alula Pankhurst

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- WIDE4 planned for 2016
- In all 20 communities
- Lighter design – template for use elsewhere
- Advice on case comparative methods very welcome