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# **Integrating Quantitative And Qualitative Research For Country Case Studies Of Development**

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# INTEGRATING QUANTITATIVE AND QUALITATIVE RESEARCH FOR COUNTRY CASE STUDIES OF DEVELOPMENT\*

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## **Summary**

This paper reviews the use of combinations of quantitative and qualitative approaches (Q-squared) for country level studies with particular reference to the work of the Global Development Network (GDN). It discusses the main features of these approaches and examines their strengths and weaknesses. It argues that Q-squared approaches offer substantial potential benefits in terms of data quality, depth of understanding and policy analysis. However, these benefits need to be weighed up against the additional direct and indirect costs that will be incurred.

A framework for selecting the structure of Q-squared research programmes is then presented. This focuses on whether research is self-contained or opportunistic, on the types of mix that are adopted (quantitative and ethnographic, quantitative and participatory, quantitative and ethnographic and participatory or participatory that yields Q-squared) and the timing of the mixing of approaches (merged, sequenced or concurrent). A series of practical examples of Q-squared studies are then reviewed.

The conclusion argues that GDN will need to answer three specific questions based on this framework in the light of the research goals of each of its projects (specific focus, one-off studies or an on-going programme, country level only or comparative) and resource availability (finance, time and skills).

- Should the studies be self-contained or opportunistic (partially or fully)?
- What mix of methods should be adopted (Q&E, Q&P, Q&E&P or PQQ) ?
- How will the different components be timed (merged, sequenced or concurrent) ?

If resourcing levels are high then a self-contained, sequenced, Q&E&P approach is recommended. If resources are partially constrained, then a partially opportunistic, sequenced, Q&E (or Q&P) approach is recommended using existing LSMS, DHS or other data.

Finally, for GDN's work to succeed it will be necessary not only to develop research teams with appropriate mixes of excellent research skills but also with appropriate attitudes. Team members need to have a willingness to listen to researchers from other methodological traditions and to show respect for the differing ways in which different disciplines and approaches ensure rigor in data collection and analysis.

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# INTEGRATING QUANTITATIVE AND QUALITATIVE RESEARCH FOR COUNTRY CASE STUDIES OF DEVELOPMENT<sup>†</sup>

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‘There has not been nearly enough systematic comparison of research results arrived at using different research methods and not nearly enough attention to what has been called “methodological marriages”, blending different methods – for example, survey research and ethnography’ (Bulmer 1998: 164).

‘There are bands who go around gathering their data in a qualitative way, and there are others who carry out large-scale hunting expeditions with their surveys. Each band is rather autonomous with very few links, apart from occasional periods of warfare and sporadic raids on one another’s cattle’ (Scott cited in Thompson 2004: 238).

## 1 Introduction

The lack of integration of quantitative and qualitative research approaches that has characterised the social sciences has led to researchers waxing lyrical about the tribal antagonisms and reluctance to arrange marriages between these two approaches (see quotes above). As Thompson (2004: 236) expresses it, ‘...research using one eye rather than two’ typifies much conventional social science. But, in recent times, more and more researchers are attempting to use ‘both eyes’.

This is particularly the case in three related fields – international development studies, poverty/welfare studies (in both ‘developed’ and ‘developing’ countries) and policy evaluation work. Indeed, in development studies there is an emerging consensus that

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combined approaches and ‘mixed methods’ can create knowledge that is more socially useful and can contribute to more effective policy (see Carvalho and White 1997, Marsland et al 1998, White 2002, Kanbur 2003, Kanbur and Shaffer 2006 and Hulme and Toye 2006). The Q-squared conferences and publications edited by Kanbur and Shaffer have been especially influential.

This apparent consensus must not be taken at face value, however. Progress has been *slow*<sup>1</sup> – Lipton articulated and demonstrated the potential advantages of combined approaches with the Village Studies Programme (VSP) in the 1970s (Lipton 1970; Lipton and Moore 1972). In addition, Q-squared approaches have only *shallow* roots in key institutions – such as the World Bank’s Research Department and the Economics Departments of leading US universities. Interest in using mixed approaches varies greatly between different disciplines, between the epistemic communities that lie within disciplines and between different actors (Hulme and Toye 2006). These ‘tensions’ (Kanbur and Shaffer 2006) have many origins including the incentives within academia for researchers to stay within disciplinary (or sub-disciplinary) comfort zones, political and ideological divides about whether development and poverty reduction are growth-mediated or welfare-mediated<sup>2</sup> and jealousies over the privileged access that some quantitative specialists (and particularly neo-classical economists) have to policy-makers compared to qualitative researchers (and other disciplines).<sup>3</sup>

In this paper I seek to:

1. Provide an overview and update on the use of combinations of qualitative and quantitative techniques in the context of country case studies.<sup>4</sup>
2. Assess the merits of combining techniques relative to the exclusive use of qualitative or quantitative techniques.
3. Consider the merits of alternative combinations of qualitative and quantitative approaches with reference to actual examples (where possible).
4. Advise on next steps for GDN's future Global Research Projects (at the workshop I shall be seeking more information on these so I can focus my conclusions more explicitly on GDN projects).

There is a vast and dispersed literature on these issues that is spread across many journals and sources and involves debates within academic disciplines and across disciplines. In addition, there is a growing 'grey literature' on these issues and a clear chance that methodological innovations are as likely to occur 'in practice' as much as in the academe (as happened with participatory rural appraisal). While I use a range of examples, I focus particularly on poverty analysis and poverty dynamics, with a bias towards Asia and Africa, because of my personal knowledge of these topics and regions.<sup>5</sup> This means that the examples that I cite are most relevant to GDN's *Development on the Move* project.

My focus in this paper is on the selection and practical application of mixed methods and not the elaboration of the profound ontological and epistemological debates that Q-squared research may prompt<sup>6</sup>. I attempt to summarise the state of play, with regards to strengths and weaknesses and the alternative means of combining methods,

in tables to provide the reader with a relatively simple means of examining the options.

## **2 Quantitative and Qualitative Approaches**

### ***2.1 What do we Mean by Qualitative and Quantitative?***

There are many complex distinctions and debates about exactly what quantitative and qualitative approaches are and how they might be distinguished or compared. I examine some of the most pertinent of these issues below. However, to achieve the purpose of this paper – helping GDN develop practical mixed method approaches to the analysis of country level studies – it is useful to present characterizations for these two approaches that are not so nuanced that they discourage operationalization. To this end:

- ***Quantitative approaches*** are characterised by studies that apply mainly statistical analysis to data collected by standardised questionnaire(s) through survey methods that has been numerically transformed (and simplified) and that comes from a sampling frame that indicates it is representative of a broader population (ideally the national population and also sub-national units such as regions, ethnic groups, gender, etc).
- ***Qualitative approaches*** are characterised by mainly narrative analysis focusing on the meanings that actions have for people. Data is usually collected by ethnographic (conversation, semi-structured interviews, life histories, oral histories and observation) or participatory methods (focus group discussions, community mapping and institutional analysis, participatory problem/opportunity analysis etc) much of which is non-numeric and which comes from relatively small ‘n’ datasets that make it difficult to infer being

representative of a broader population (such as a national population). While this approach often focuses on individuals and households ethnographic type methods can be applied to policies and institutions to chart the ‘life history’ of an institution or the ‘dynamics’ of a policy. This involves conversations and semi-structured interviews with key informants, examination of documents, diaries, maps and photographs and other historical methods.

Commonly, discussions about quantitative and qualitative approaches assume a ‘dichotomy’ or a ‘divide’<sup>7</sup> between the two in which they are virtually polar opposites. In line with Kanbur (2003), I think it is best to view the difference in terms of relative positions on a number of continua. At the extreme, an approach might be at one of the poles. However, in most cases, studies have a tendency to lean towards a quantitative or qualitative approach but not to the same degree in all dimensions.<sup>8</sup> From my review of the literature a number of commonly cited dimensions can be identified (Table 1).

**Table 1 The qualitative – quantitative continuum**

Dimension	Qualitative to Quantitative Continuum
1 Type of information on population	Non-numerical ----- Only numerical
2 Type of population coverage	Location specific ----- Statistically representative
3 Type of population involvement	Active ----- Passive
4 Type of inference methodology <sup>9</sup>	Inductive ----- Deductive
5 Type of disciplinary framework	SAPG* ----- neoEDEpQtS#
6 Type of data	Subjective ----- Objective
7 Type of data collection method	Interviews and PLA ----- Sample survey and questionnaires
8 Type of analytical	Narrative and ----- Formal stats, mod-

framework	Interpretive	elling, positivist
9 Primary analytical focus	Processes -----	Outcomes
10 Major unit of assessment	Collectivities -----	Individuals
11 Data collection-analysis link	Data collected ----- and analysed by same person	Data collected by enumerators and analysed by researcher

*Source:* partly based on Kanbur (2003).

*Notes*

\* Qualitative sociology, anthropology, qualitative political studies and human geography. See Hulme and Toye (2006) for a discussion of SAPG and other disciplines.

# Neo-classical economics, demography, epidemiology, quantitative sociology.

This table provides a structure for understanding the ways in which different studies relate to these dimensions. Relatively few studies fall at either extreme and neither disciplines nor methodologies can be identified as totally mapping on to one of the pole positions.<sup>10</sup> For example:

- Anthropologists commonly use quantitative data extracted from statistical reports to provide a context for the groups they are studying. The work of economic anthropologists is often liberally illustrated with numerical materials they have computed.
- A growing number of neo-classical economists studying well-being (and other issues) are using subjective assessments (for example see Easterlin 2001, Stutzer 2004 and Kingdon and Knight 2006).
- Much quantitative data originates as qualitative reports which are subsequently converted to numeric values (Moris and Copestake, 1993: 5).
- While much neo-classical economic analysis of poverty commences with a focus on the patterns of outcomes (over time or space or both) it then proceeds to examine processes (although critical realists would challenge this).

- While much SAPG work elaborates the processes that underpin poverty and/or wealth creation, commonly judgements are made about outcomes (i.e. groups or individuals are classified as better off or worse off or as improving or declining in terms of explicit or implicit criteria).

## ***2.2 Understanding Qualitative Approaches: Ethnographic/Sociological and Participatory Methods***

Most of the general social scientific literature on the qualitative approaches that are used in integrated studies focuses on the methods used by ethnographers and qualitative sociologists and in particular on the use of open-ended interviews and the collection of life histories (London et al forthcoming; Thompson 2004).

By contrast, in development studies the literature has a much greater focus on the application of ‘participatory’ methods as the main contribution of qualitative approaches. This has been particularly associated with the proselytising work of Robert Chambers and with the World Bank’s influential *Voices of the Poor* studies (Narayan et al 2000) These highlight the use of group based data collection methodologies, context specific conceptualisations of key indicators and processes, and they sometimes seek to empower local populations by strengthening their capacity and raising their awareness of their right to participate in knowledge creation processes. This empowerment objective and group based emphasis differentiates participatory methods from ethnographic/sociological methods and quantitative methods – both of these extract information from individual respondents and do not lay claim to being emancipatory.

In the developing world, participatory methods have now been institutionalised in country level analysis through the Poverty Reduction Strategy (PRS) process which entails a ‘participatory poverty assessment’ (PPA) as a component of its formulation. This institutionalisation has become so strong that many neo-classical economists involved in poverty analysis assume that all qualitative work is participatory. They have little awareness of open ended interview techniques with individuals and/or the construction of personal life histories. It is worth noting the different features of these two major variants of the qualitative approach as GDN studies may wish to use elements of both (Table 2).

**Table 2 A Comparison of Participatory and Ethnographic/Qualitative Sociology Methods**

	<b>Participatory Appraisal</b>	<b>Ethnographic/Qualitative Sociology</b>
Main methods of data collection	Focus group discussions (FGDs), participatory mapping, wealth ranking, pair-wise ranking, transect walks	Open ended interviews, semi-structured interviews, life histories, participant observation, key informants
Analytical framework	Narrative – combination of researchers and participants	Narrative by the researcher
Data collection unit	Various groups from a community	Individuals
Data type	Subjective	Subjective
Population involvement	Active and empowering	Active
Reflexivity	Reflexive to participant and researcher learning	Reflexive to researcher learning

The reasons why participatory methods are emphasised in developing countries and ethnographic methods in industrialised countries are complex and rarely examined, but GDN may want to give them some thought. In part it may relate to the belief that in industrialised countries most citizens are already ‘empowered’ while in poorer countries there remains a need to promote empowerment, especially of the poor and

disadvantaged groups. In part it may relate to the scarcity of well-trained anthropologists and sociologists in developing countries as against NGO staff trained in participatory learning and action (PLA) and participatory rural appraisal (PRA) and related techniques. In part, it may relate to the power of people in industrialised countries, and the middle classes in developing countries, to refuse to sit down with neighbours and discuss issues that are often regarded as personal and private.<sup>11</sup>

### ***2.3 Sometimes it is not possible to bridge the ‘quantitative and qualitative gap’***

Having noted the inter-penetration of both quantitative and qualitative approaches in most empirical social science research, we do need to note that there are some approaches to analysing development that cannot be combined because of fundamental and (what are at present) irresolvable differences. The case that I have witnessed is of the infeasibility of getting super-positivists and radical structuralists to work together. This is discussed in some detail in Appendix 1. Bridging such a chasm (across its ontological, epistemological and methodological elements) would produce a social scientific paradigm shift of fundamental significance, but is well beyond the remit of this paper (and perhaps, GDN comparative research). The best lesson for GDN on this issue may be to avoid assembling research teams that would need to bridge this chasm to deliver research programme goals. Arguably ‘the only forum where interdisciplinary studies in depth can be conducted successfully is under one skull’ (Streeten, 1974, p. 26). In cases where it is not practical to rely on a single researcher (perhaps due to the scale of the task), it is best to call on relatively small teams of like minded people committed to mastering multiple disciplines and integrating different methodologies, than larger more diverse teams composed of

representatives from different disciplines with their own distinct methodologies (see Clark, 2006, esp p.xxxiv).

Much of the 'divide' relates to the use and abuse of techniques. Some quantitative researchers believe that qualitative researchers can simply rig their findings by selecting the case studies they have that fit their argument and discarding those that do not.<sup>12</sup> For example, White (2002) illustrates this issue with reference to the influential *Voices of the Poor* studies (Narayan et al 2000). The fact that qualitative researchers very rarely (not at all until very recently) make their datasets available reinforces this belief as it is impossible to pursue a replication of the findings from the data as standard scientific rigor would demand. Reciprocally, some qualitative researchers believe that quantitative researchers simplify concepts to such a high degree (e.g. focussing on income poverty or typologies that treat 'tribe' as a fixed category that is easy to specify) and avoid answering the question of whether the data collected has such wide margins of error it needs to produce only the most cautious of conclusions. As White warns, with the example of Burnside and Dollar (2000), if quantitative data is tortured for long enough then evidence can be found to support quite different arguments.

The key to effective Q-squared research is to avoid moving into situations where an approach or method finds it necessary to attack other approaches or methods. By respecting the different strengths that different approaches can bring to an analysis, and pushing for the levels of best practice and methodological and analytical rigor that each different approach or discipline specifies then the environment can be

created for highly productive mixed approaches (White 2002; Kanbur and Shaffer, 2006).

### **3 The Strengths and Weaknesses of Quantitative Approaches and Qualitative Approaches**

The key argument for Q-squared approaches is that combinations of approach permit the strengths of both approaches to be captured and that some of the weaknesses of a single approach are avoided or overcome. Rather than being simply additive, Q-squared approaches can be argued to be positive sum. Clearly the specific combination that is chosen will shape the nature of the benefits. Simply adding a small amount of qualitative work as a supplement to a quantitative study might produce minor benefits. Integrating approaches so that new findings are produced that can be trusted may produce vast analytical and policy benefits.

In Table 3 the strengths and weaknesses of best practice quantitative and qualitative approaches are summarised. Do note that this is best practice as:

- (i) If one looks at levels of performance that are below disciplinary best practice standards then most, if not all, of the 'strengths' disappear from both approaches.
- (ii) There is an implicit assumption in the Q-squared argument that Q-squared approaches can combine the best practices of both quantitative and qualitative approaches. This is a reasonable assumption, but in each specific study it needs testing.<sup>13</sup>

**Table 3 The Strengths and Weaknesses of Quantitative and Qualitative Approaches**

	<b>Quantitative</b>	<b>Qualitative</b>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>*Results from sample surveys can be generalised for entire populations</li> <li>*Results can be aggregated and are comparable across population groups</li> <li>*Results can be broken down by socio-economic group for comparisons</li> <li>*Reliability of data and findings provides powerful indicators to guide policy</li> <li>*Replicability – publication of questionnaires and dataset permits scrutiny of findings</li> <li>*Transferability of dataset to other analysts means that analysis is not dependent on availability of an individual</li> <li>*Precise professional or disciplinary minimum standards exist for much survey work</li> </ul>	<ul style="list-style-type: none"> <li>*Open-ended questioning reveal new or unanticipated phenomena</li> <li>*Provides a rich picture of social phenomena in their specific contexts – reveals critical incidents</li> <li>*Provides a holistic interpretation of the detailed processes that have and are shaping people’s lives</li> <li>*Provides insights into intra-household relations &amp; processes</li> <li>*Provides deeper insights into causes and direction of causal processes</li> <li>*Permits researchers to access data on ‘difficult issues’ e.g. domestic violence</li> <li>*Data on marginal groups that surveys often cannot locate can be collected e.g. illegal migrants, the homeless, child-headed households</li> <li>*Encourages creativity and innovative explanatory frameworks</li> <li>*Data analyst is usually heavily involved in data collection and knows its strengths/ weaknesses</li> <li>*Participatory methodologies empower, rather than objectify, respondents</li> </ul>
<b>Weaknesses</b>	<ul style="list-style-type: none"> <li>*Sacrifices potentially useful information through process of aggregation</li> <li>*Sacrifices potentially useful data by placing households or events in discrete categories</li> <li>*Neglects intra-household processes and outcomes</li> <li>*Commonly under-reports on difficult issues, e.g. domestic violence</li> <li>*Commonly under-reports on marginal/difficult to access individuals and households</li> <li>*Often wasteful in that large amounts of the dataset are never used</li> </ul>	<ul style="list-style-type: none"> <li>*Difficult to demonstrate the scientific rigor of the data collection exercise</li> <li>*Low levels of standardisation and definitions/criteria etc vary from researcher to researcher</li> <li>*Analytical methods are poorly specified and vary from researcher to researcher</li> <li>*Completion of research is often dependent on a single individual</li> <li>*Often results cannot be generalised as it is unclear ‘whom’ they represent</li> <li>*Findings less likely to influence policy as they lack the legitimacy of science and the precision of</li> </ul>

	<ul style="list-style-type: none"> <li>*Relatively expensive in terms of money.</li> <li>* Poorly trained enumerators can make mistakes and inadvertently influence responses</li> <li>* Enumerators may falsify/invent data</li> </ul>	<p>numbers</p> <ul style="list-style-type: none"> <li>*Datasets are rarely made publicly available so that findings cannot be tested and other researchers cannot use the dataset</li> </ul>
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There are many potential ways in which a combination of quantitative and qualitative approaches might capture the strengths of both methods. Here I focus on three particular aspects.

**(i) Data Quality** – effective Q-squared research can increase confidence in the reliability of the dataset and provide a richer dataset to use for explaining the processes underlying an outcome pattern. Pre-survey qualitative research can ensure that the survey instruments are focussed on priority issues and can accommodate local conditions. Well-designed surveys permit generalisations across populations and groups within populations. Qualitative research can indicate the direction of causalities between variables and explain the linkages between different processes in detail. Freeman, Ellis and Allison (2004: 152-155) describe the LADDER research project’s use of quantitative and qualitative approaches. They argue that formal surveys are most effective for collecting representative data on the economic activities of households (assets, activities, incomes expenditures and outcomes) while qualitative methods are essential for capturing the social and institutional context of different household’s and different communities livelihoods.

It can also allow findings to comment on the condition of groups who are under-reported by surveys (usually the most vulnerable and thus of key interest for development/poverty researchers – see Thompson 2004 for a discussion) and on

factors that are under-reported or avoided in formal surveys such as domestic violence (see London et al forthcoming for examples)<sup>14</sup>.

For panel datasets, qualitative research can provide an understanding of the degree to which attrition is biased towards certain groups or certain events. Households that have collapsed or migrated out of an area cannot be re-surveyed, but neighbours can often provide detailed accounts of why households have disappeared and where they now are.

**(ii) Deeper Understanding** – the detailed information about the processes underpinning specific forms of social and economic change provided by good qualitative research can guide quantitative researchers in their analyses and provide additional support for quantitative findings. Kabeer (2004) provides a detailed example of the way in which combinations of approach can lead to findings that could not be reached with confidence by a single approach. The deep insights of life history methods allied to the generalisability of survey findings permit the role of gender relations in poverty dynamics to be more fully understood. In my research on national economic governance, semi-structured interviews with key informants have revealed that policies that are widely interpreted as ‘IMF imposed’ have strong support from, and were partly designed by, national civil servants and politicians.<sup>15</sup>

**(iii) More Effective Policies** – the confidence gained by better data and the deeper understandings of combined approaches should permit the identification of more effective policies for development or poverty reduction. Perhaps the most obvious area in which combinations of quantitative and qualitative research have shaped policy is with regard to gender and the development of policies to improve the situations of girls and women by confronting domestic violence, challenging

discrimination in the workplace and finding mechanisms to ensure that girls can access education.

#### **4 What Does it Cost?**

The previous paragraphs have outlined the case for Q-squared approaches at the country level – but, Q-squared is not a ‘free lunch’ and it comes with costs. These will vary with the particular objectives of a study, with the availability of ‘free’ inputs (such as access to existing LSMS, DHS, ISSP or PPA datasets) and with the type of Q-squared combination that is chosen. While it is feasible for a Q-squared approach to be pursued by a gifted individual (for example, Kabeer 2004), in most cases it will entail a cross-disciplinary team. At a minimum this will mean two principal investigators (one quantitative specialist and one qualitative specialist) and a number of research assistants, enumerators or interviewers. If a team is needed, and it is larger than the team for a straight forward quantitative or qualitative study, this directly generates two types of additional cost.

- **Finance** – the extra personnel and field activities of a combined study mean that there are inevitably higher costs. How much is hard to predict, even as a rough rule of thumb, partly because of the specificity of every research project and partly because comparative data on research project costs is rarely available. At the Chronic Poverty Research Centre (CPRC) we estimate that the data collection costs of a research project to produce a panel dataset from an existing quantitative survey (i.e. the second wave) has been increased by ??% as a result of making it a Q-squared initiative with the qualitative work involving the development of a carefully structured set

of 150 life histories through ethnographic methods (pers comm. Bob Baulch). There will be additional analytical costs – but, the quality of the dataset should permit much of these to be recouped by leveraging in other resources.

- **Time** – Q-squared makes team ‘recruitment’, research design, data collection and analysis more complex and this almost inevitably leads to a longer time between start-up and initial findings. Again, there is little data publicly available on this but personal experience and conversations at the University of Manchester suggest that if only 20% more time was required (than for a ‘solo’ quantitative or qualitative study) this would be considered ‘low’. The possibility of 50 to 100% more time being required would not be unusual.

Beyond these direct additional costs are less tangible costs. These include: (i) the extra energy (and indeed, emotion) required of principal investigators to maintain good communications and relationships between team members; (ii) the increased risk that the entire project will break down because of a key individual leaving the team or relationship problems; (iii) the possibility that the quantitative and qualitative researchers will have quite different interpretations of the combined dataset they produce, so that the final output is not a more persuasive set of findings but two (or more) reports that have little policy influence, whatever their academic merit<sup>16</sup>; (iv) the danger that the principal investigators become so bogged down in research management that the overall research goals – deeper understandings and more effective policy advice – receive insufficient time.

The additional costs and risks identified above are not intended to discourage researchers from pursuing Q-squared approaches but they do provide a caution. They point to the need to:

- Ensure that sufficient resources are available to complete the research
- Be parsimonious in the combinations of approaches that are selected – the more comprehensive the design the greater the likelihood is that a major problem will impact on the quality or timing of findings
- Ensure that team leaders have the time and ability to both manage the research and engage in the production of high quality findings.

## **5 A Framework for Selecting the Structure of a Q-Squared Research**

### **Programme**

This section sets out a framework for understanding the different design structures of Q-squared approaches and comments on their relevance to achieve different objectives. A ‘full menu’ of hypothetical options could be generated from this framework, but instead I focus on a more limited number of structures that have particular merit. In section 6 this framework is used to explore the design features of a number of practical examples of country level Q-squared approaches.

The framework recognises three main elements of study design.

- Is the study self-contained (ie will it collect all its own data) or is it opportunistic (ie does it use datasets that have already been collected by others)?

- How does the study combine its quantitative and qualitative methods – merging, sequencing or concurrent combinations?
- What particular mix of approaches is selected ?
  1. Quantitative and ethnographic
  2. Quantitative and participatory
  3. Quantitative, ethnographic and participatory
  4. Participatory that yields both quantitative and qualitative data

### ***5.1 Self-contained or opportunistic design***

A Q-squared research programme can be designed so that it is self-contained and collects all of the data it utilises under its own auspices (e.g. the Baulch et al 2006) study in Bangladesh – section 6). Alternatively, a programme can be opportunistic and can base its analysis on existing datasets. It can be fully opportunistic, and undertake no data collection of its own but simply use existing datasets (e.g. Howe and McKay forthcoming in Rwanda) or partially opportunistic and combine an existing quantitative dataset with some original data collection (e.g. most poverty assessments for PRSs, Kabeer 2004 in Bangladesh, Clark and Qizilbash, 2006 in South Africa). The commonest cases of opportunistic designs are when rapid qualitative work is undertaken around a pre-existing survey-based, quantitative dataset (this is increasingly made possible because of the availability of LSMS, DHS and ISSP datasets and the willingness of institutions such as IFPRI to make customised datasets publicly available).

The advantages of a self-contained approach are clear. The research team is able to ensure that it obtains the types of data it needs in the formats it needs from a carefully

selected sample and will not have to adjust its definitions, measures, concepts and narratives to those that have been used by a pre-existing study. This means that its findings are more likely to be authoritative and it can draw detailed conclusions with relatively high levels of confidence. The disadvantages are also clear – self-contained studies generally require relatively large budgets – to meet the costs of design, data collection and data processing – and there are long time periods between inception and delivery of findings (commonly of the order of 2 to 3 years).

The advantages of more opportunistic designs are also clear. They have lower costs, and in the case of fully opportunistic studies, there are no costs for data collection and processing (in some cases there may be data access charges); they can often be completed in a matter of weeks, or a few months; and, the principal investigators can focus their time and energy on analytical tasks rather than survey design, data collection and team management. But there are substantial potential disadvantages. These concern the inevitable compromises<sup>17</sup> that have to be made in working with a dataset, or datasets, that have not been purposively designed to meet the needs of the research objectives being pursued. Such compromises need to be assessed and thought through very carefully as they can mean that findings may be invalid (e.g. samples are simply too small to generalise across populations) or that only very shallow findings (e.g. ‘more effective poverty reduction strategies are needed’) or highly qualified findings can be drawn.

## ***5.2 Mixes of Approach***

In the original Q-squared debates the assumption was that qualitative approaches were a single group. I disagree with this and believe that two very different qualitative

approaches need to distinguished – *ethnographic/qualitative sociological approaches and participatory approaches* (see Table 2 for more details) This means that four different types of approach mixes are possible.<sup>18</sup>

- 1 Quantitative and ethnographic (Q&E)
- 2 Quantitative and participatory (Q&P)
- 3 Quantitative, ethnographic and participatory (Q&E&P)
- 4 Participatory that yields both quantitative and qualitative data (PQQ)  
– (this might also include ethnographic methods).

The most appropriate mix for any particular study will depend on research objectives, the resources available (participatory methods will usually be cheaper and quicker than ethnographic methods though this does need checking), and the judgement of the research team on how they can get the most reliable and relevant data and reach the deepest and most convincing conclusions. For the national level studies of some GDN projects (eg Understanding Reform) participatory approaches may be irrelevant, but for others (eg Development on the Move) they may be feasible.

If budgets and time and management capacity are relatively unconstrained then a comprehensive combination (Q&E&P) will be appropriate. If this is not the case then my personal preference is for a Q&E combination – this is because I have concerns about the reliability of data collected by participatory methods based on personal experience and the concerns raised by Mosse (1994). In my own work I have found that the deep insights I have gained from open ended interviews with individuals and constructing life histories has deepened my analyses of the complex processes

operating on individuals and households and of their personal strategies to cope with poverty and improve their own and their children's prospects<sup>19</sup>.

However, there is a major qualification to this recommendation of ethnographic approaches. Good ethnographic/qualitative sociological research at individual/household level requires the availability of an anthropologist/sociologist who is a gifted field worker, has the necessary language abilities, is a good analyst/writer and can work in cross-disciplinary teams. The experience of the Chronic Poverty Research Centre has been that such individuals are difficult to recruit in many developing countries. Where this is the case then the use of participatory approaches may be the only way forward – using specialised NGOs and consultants. The danger of this is not only that deep insights may be lost but also that the qualitative approach becomes a complement to the quantitative approach but is not its equal in terms of generating hypotheses and ideas, providing evidence and contributing to findings.<sup>20</sup> For studies examining policy histories and institutional change then a dedicated anthropologist/sociologist may not be necessary. Existing team members (economists, demographers, statisticians) can undertake the key informant/elite interviews as long as they carefully 'think through' how they will approach this task and ensure that their personal identity does not 'contaminate' such interviews.

Finally, there is the possibility of using a single approach (usually a participatory approach) to generate both quantitative and qualitative data for analysis. The best developed of such approaches is Krishna's (2006) Stages of Progress Methodology (SoPM).<sup>21</sup> This method has only recently been developed but it has already begun to attract the attention of policy-makers in Asian and African countries. Unlike many

participatory approaches, which argue that the specific methods for a study must be developed collaboratively and iteratively with communities, the SoPM provides a ‘textbook’ design for its use. The SoPM has the distinct advantages of being modest in cost, rapid in terms of timescale and ability to yield policy relevant conclusions. Against this are questions of the quality of data collected, whether its policy conclusions are sufficiently detailed and uncertainty about how it can be operationalized in urban areas (where populations are much more mobile, know less about each other and are often reluctant to attend meetings that may run for several hours).

### ***5.3 Timing method mixes: merging or sequencing or concurrent***

Marsland et al (nd:6) identify three different means of organising the timing of Q-squared studies.

***Merging*** involves directly combining the methods (and, according to them ‘attitudes’) of both approaches into a unified framework. For example, using participatory methods on a large scale, and with a statistically justifiable sampling frame, to gather both quantitative and qualitative data that permits generalisation across a country or, at least the rural population. This is the design that Krishna (2006) has used in his studies (see next section). Another form of merged approach would be to include open ended questions or the construction of a life history at the end of a formal survey instrument.<sup>22</sup>

***Sequencing*** is probably the most frequently used means of mixing approaches. This involves carefully selecting the ordering of different methods to maximise their

contributions to the overall study and to improve the data that is collected at each stage. The Baulch et al (2006) study in the next section illustrates this with its ‘three stage’ design – qualitative (participatory), followed by quantitative (sample survey) followed by qualitative (ethnography for households purposively selected from the quantitative work).

*Concurrent* pursue both approaches at the same time. For example, formal surveys are conducted in the field at the same time as ethnographic or participatory (or both) methods are applied in the same or neighbouring areas. This has the advantage of reducing the time and the logistical demands of data collection but it means that many possibilities for cross-fertilisation or improving methods are lost (e.g. if the qualitative work identifies a key issue that was missed in the survey instrument it is too late to modify the questionnaire as data has already been collected on a number of households).

## **6 Q-Squared at the Country Level in Practice**

The framework outlined in section 5 is now applied to a number of concrete examples. Most of these are at the country level, but a number are focussed only on ‘rural populations’ or on disadvantaged rural populations within a national context. One of the difficult challenges facing much ‘country’ level work in developing countries concerns the separation of ‘rural’ populations from ‘urban’ populations in both data collection and analysis. While there are sometimes justifiable grounds for this there are often un-stated reasons relating to researcher’s wishing to stay within their comfort zones. The large number of researchers who did their PhDs in

agricultural economics or rural development (in the 1970s and 1980s)<sup>23</sup> are inclined to continue with their rural focus despite the growing evidence that households are multi-sited (and migration is a major household level strategy), that urban processes are central to understanding rural change and that most policies (growth or welfare) are about national policy and not rural policy. GDN needs to ensure that its Q-squared research does not adopt this often unhelpful divide. This is especially important for opportunistic studies where the existence of rural surveys raises the likelihood of combined approaches being rural-only studies. If there are to be geographical comparisons then these might best be pursued in terms of regions and settlement level (villages, rural centres, towns, secondary cities and major cities) rather than a simplistic rural-urban divide.

### ***6.1 Quantitative and ethnographic combinations***

Studies that combine quantitative and ethnographic methods generally require relatively long time horizons and moderate to significant budgets.

- (i) *Adato, Carter and May (2006) – Exploring poverty traps and social exclusion in South Africa using qualitative and quantitative data*

This is an opportunistic and sequenced study. It combines an innovative analysis of the first two waves of the KwaZulu-Natal Income Dynamics Survey (KIDS) dataset (1993-1998) with a qualitative study of 50 KIDS surveyed households in 2001. These 50 households are purposively selected from the quantitative analysis to represent four types of poverty dynamic (chronic poverty, downward mobility, upward mobility and never-poor). The qualitative methods are ‘household events mapping’, detailed discussions to identify the key events associated with household upward or downward

mobility, and semi-structured interviews with a particular focus on understanding the social relations and networks of specific households. The qualitative work:

- Confirmed the quantitative findings identification of a dynamic poverty threshold and the existence of a low level poverty trap equilibrium.
- Revealed that while active social relations typify most households such networks and relations are, at best, only able to help stabilise the livelihoods of poor households. They provide little in the way of long term support for accumulation or economic advance.
- Confirmed the quantitative finding that the legacy of apartheid is such that ‘deeper structural changes’ are needed to tackle chronic poverty. Implicitly the findings point to the need for redistribution if poverty is to be significantly reduced. Growth will not be enough!

While this study covers only data from KwaZulu-Natal Province it is used to make generalisations across South Africa, as commonly happens with the KIDS dataset. While this seems reasonable the study could have used the research of others to demonstrate the validity of the country level generalisation. A number of further Q-squared studies are underway by this team (Adato, Lund and Mhlongo forthcoming).

(ii) *Kabeer (2004) – Snakes, ladders and traps: changing lives and livelihoods in rural Bangladesh*

This is an opportunistic and partially sequenced study that combines a quantitative, two wave (1994-2001), panel dataset of 1184 households in two contrasting rural areas with qualitative data collected by open ended interviews over the study period and during a return piece of fieldwork in 2002. The original study was not designed

to this end – it was to examine changes in rural livelihoods, and particularly agricultural technologies. In this study Kabeer makes generalisations about the processes and outcomes of economic and social change across rural Bangladesh over the 1990s. While it has the disadvantage of being ‘rural only’, as are so many opportunistic Q-squared studies, the analysis considers the influences of urban and international changes on the population it is examining.

The paper uses descriptive and multiple regression statistical techniques to identify the factors that are associated with differing experiences of economic change – in particular, whether over the period of study households have improved their economic position or not. It is inferred that these results are broadly typical of the national situation, but the sample is not formally representative. It then draws on the qualitative data to interpret these findings and more deeply explore the processes that are involved with improving or deteriorating livelihoods and living conditions. The conclusion are particularly strong on the ways in which macro-level factors (the diffusion of HYV seeds, national and international migration, NGO activities, fertility decline and educational expansion) inter-link with household specific factors (e.g. family size, widowhood or divorce, ‘misfortunes’) to create new sets of opportunity and vulnerability that permit an aggregate improvement in living standards while some households slide deeper in to poverty.

Structural forms of disadvantage, based on power relations, are found to be important in understanding the problems that declining and chronically poor households face. Two processes are highlighted. The first is the failure of the public health system which means that poor households are dependent on the services of an unregulated

private health sector when they have health problems. This makes them highly vulnerable to health crises that become asset depleting and lead the household into a poverty trap. The second is ‘patriarchal risk’ – social structures making females dependent on males for provision and protection. When these break down, because of widowhood, divorce or abandonment, then women are likely to experience severe declines in their livelihoods and have few mechanisms for social protection.

Overall, this study points to the potential for opportunistic studies to use datasets acquired for other purposes for country level analyses of economic and social change at modest cost.

(iii) *London et al (forthcoming) – Models of integration: The promises and pitfalls of combining quantitative and qualitative research*

This paper combines longitudinal surveys with longitudinal ethnographic studies to examine policy impacts. Its origins appear to be opportunistic as the survey and ethnographic materials are not embedded in the same sample. While the study focuses on only four urban areas in the USA – Cuyahoga in Ohio, Los Angeles in California, Miami-Dade in Florida and Philadelphia in Pennsylvania – its conclusions are drawn at the national level.

The main components of the study are (i) questionnaire survey of 3960 single mothers receiving welfare payments or food stamps in 1998/99 who were re-surveyed in 2001, and (ii) semi-structured interviews of around 160 single mothers in neighbourhoods similar to those of the survey sample (but not identical). This involves 3 to 4 interviews over a 3 year period.

The ethnographic work is used to triangulate the survey findings and explore the processes involved in single mothers benefiting/not benefiting from national level welfare reforms. Key findings are:

- Ethnographic observations suggest that the survey under-estimates the material hardships, domestic violence and health problems of the sample. Reasons for this are examined.
- Survey research may have underestimated the costs imposed on children's well-being by increases in maternal employment rates
- When integrated the approach revealed that for benefits to flow from maternal employment there needs to be an employment related increase in income (i.e. when employment earnings merely substitute for welfare receipts then there are no benefits to the children)
- The impacts of increased maternal employment on adolescent children's school outcomes depended on the role played by the children in taking on additional home or child caring responsibilities.

The conclusions of the study are that Q-squared approaches should be encouraged and that the ethnographic interviews should be embedded in the survey sample.

## ***6.2 Quantitative and participatory combinations***

Q-squared approaches that combine quantitative surveys with participatory approaches are probably the most common form of mix for national level studies focussed on changes in household economic or social conditions. This is because they are easier to design and staff than quantitative and ethnographic studies and, in particular, they lend themselves to partially opportunistic data collection strategies (by

running participatory studies alongside pre-existing quantitative surveys) and fully opportunistic combinations (by a mixed analysis of pre-existing surveys and participatory poverty assessments or PPAs).

(i) *Poverty Reduction Strategy Papers (PRSPs) and Poverty Reduction Strategies (PRSs)*

The most common and routinised use of Q-squared approaches occurs in the preparation of PRSPs and PRSs which are required to integrate quantitative and participatory approaches (and may draw on ethnographic approaches if they choose). First generation PRSPs and PRSs have been based on the analysis of pre-existing quantitative data (usually LSMSs but also others) and custom-designed participatory poverty assessments (see Klugman, 2002). Specific PRS/PRSPs have differed enormously – from the Bangladesh IPRSP built around quantitative analysis of household surveys with limited and rapid group-based exercises by the quantitative analysts to the Ugandan Poverty eradication Plan (PEAP) which involved teams of facilitators in a carefully planned and large scale participatory data collection exercise around the country (the Uganda Participatory Poverty Assessment Programme or UPPAP).

The literature available on PRSPs and PRSs is now vast and interested readers should conduct their own searches to locate studies on specific countries combinations of methods that interest them. The IMF website has an up-to-date set of PRSPs and PRSs (<http://www.imf.org/external/np/prsp/prsp.asp#pp>) and <http://www.imf.org/External/NP/prs/eng/2005/list.htm>). The World Bank website has a set of materials on PRSP/PRS design and implementation

(<http://www.worldbank.org/prsp>). ODI's PRSP Synthesis Project has its own website with many studies on PRSPs/PRSs (<http://www.prpsynthesis.org>).

(ii) *McGee (2004) – Constructing poverty trends in Uganda: a multidisciplinary perspective*<sup>24</sup>

The Ugandan PRSP process, known as the Poverty Eradication Action Plan (PEAP), has served as an inspiration for the PRSP/PRS process and has probably been one of the most closely studied Q-squared exercises. This high profile has been partly because it led the way in PRSP methodology and partly because analyses of its early findings led to what were seen as contradictory findings about the outcomes of Uganda's poverty reduction strategy of the 1990s.

The quantitative analysis was based on the Uganda National Household Survey (UNHS) carried out by the Uganda Bureau of Statistics (UBOS). This covered a nationally representative sample of households (varying from 5000 to 10000 depending on the wave) in 400 enumeration areas. The UPPAP sampling has been mainly purposive and has varied from wave to wave. It has focussed on rural communities from different agro-ecological zones. Some of its work has concentrated on areas with below average human development indicators, and indeed has tried to identify the 'poorest village in the poorest parish' (see McGee for a detailed review of UPPAP design and methods). Poverty trend data in UPPAP were collected mainly by focus group discussions and a small number of individual life histories were collected. While much of the data was presented in narrative form some of the qualitative data was quantified into basic tabulations.

Initial readings of the quantitative studies confirmed the ‘Ugandan miracle’ of poverty reduction and growth in the 1990s. They supported a growth-mediated path for poverty reduction. By contrast, the initial analyses of the qualitative findings indicated that the achievements were not so great and that large numbers of rural people reported no improvements in their lives. A number of commentators saw the ‘integration’ of approaches and findings as requiring that they championed one method and one finding and denigrated the other method and finding. Neo-classical economists and statisticians tended towards supporting the survey-based quantitative analysis and suggested that the participatory studies lacked rigour (in areas such as sampling) and collected subjective data in ways that would lead to respondents under-reporting their material living conditions. Qualitative social scientists, and many of Uganda’s NGOs, argued that ‘the voice of the people’ should be heard and pointed to the problems of household surveys (doubts about the ability of enumerators to record the highly complex and varied consumption patterns of poor people, the tendency for enumerators to avoid interviews with people a long way from roads and/or the very poor and disabled, the impact of the price spike in coffee prices on rural incomes during survey periods).

McGee’s paper examines these apparent contradictions and explores the objectives and design of UPPAP in detail. She concludes that the apparently contradictory findings can be combined and that the ‘either...or’ debate (my inverted commas) is misguided. She examines the different ways of presenting the combined findings – contradiction, confusion or complementary. Key points include:

- The approaches do not compare like with like – it is quite possible that consumption poverty has reduced while a more holistic and subjective

appraisal of poverty finds fewer or no improvements (consumption can rapidly increase with income but education and health improvements take much longer)

- The household survey assumes that if household consumption rises all members of a household benefit equally. The participatory approaches allow disaggregation to individuals so that the ways in which women or children do not gain benefits can be understood.
- The samples are different – the UNHS is nationally representative while some of the UPPAP studies were purposively looking at disadvantaged areas.
- The studies took place at different times and so the comparisons are often about different time periods when contexts had changed (for example, at different times in terms of food availability)

The study supports the use of Q-squared approaches and suggests that examining why findings appear to differ, rather than supporting one approach and trying to discredit the other, permits combined approaches to offer deeper insights into the understanding of poverty and policy impacts.

(iii) *Howe and McKay (forthcoming) – Combining quantitative and qualitative methods in assessing chronic poverty: the case of Rwanda*

This is a fully opportunistic study that uses Rwanda's integrated household survey (EICV) and a nationwide participatory survey undertaken for the Rwanda PRSP to examine the extent and characteristics of chronic poverty and comment on the implications of these initial findings for the design of poverty reduction policies.

The study uses a framework drawn up from the participatory poverty analysis to identify the chronic poor and, in particular, it distinguishes between the *umukene wifashije* (resourceful poor) and the *umukene* and other groups (poor, very poor and abject poor). These two groups are used to define a cut-off point between the transitory and chronic poor. It then uses this criteria to re-analyse the household survey data and explore the occupational and asset characteristics of these two different groups. This confirms the differences in livelihoods and prospects for improvement between the transitory and the chronic poor, permits an estimate of chronic poverty in Rwanda – around 12.5% - and a spatial analysis shows that chronic poverty is spread across the country. In policy terms this implies that in addition to an agricultural growth strategy Rwanda will need to employ social protection policies if it is to achieve its MDG poverty reduction goal.

### ***6.3 Quantitative, ethnographic and participatory combinations***

#### *(i) Barrett et al (2006) – Welfare dynamics in rural Kenya and Madagascar*

This is an opportunistic and sequenced study. It commenced with the construction of household level panel datasets in five different rural sites from pre-existing questionnaire surveys. All of these original studies were for different purposes and involved different re-survey intervals. This produced a meta-dataset of 301 households.

Following this a carefully sequenced set of qualitative research methods (ethnographic and participatory) were applied. These included community level focus group discussions, key informant interviews, in-depth case studies of selected

households which had experienced different welfare dynamics, and intensive oral histories of 80 households from the 5 sites focused on the historical context underpinning household strategies to improve their welfare and/or escape poverty.

The qualitative analysis followed the quantitative analysis.

- It confirmed the general impression that there are multiple equilibria for household incomes (and that some households experience poverty traps).
- It revealed that the time to recover from adverse shocks and to exit poverty had increased in recent decades and provided a series of reasons for this.
- It revealed that the non-poor and poor have very different ideas about the reasons why some households cannot escape poverty. The non-poor highlight excessive alcohol consumption and lack of a work ethic. The poor highlight lack of assets, difficulties in accumulating assets and asset losses.

The conclusions are tentative but explain the causes of poverty traps and identify policy recommendations.

(ii) *Baulch et al (2006) Do development interventions permit households to escape chronic poverty? Evaluating the long-term impact of interventions in Bangladesh*

This proposal presents the methodology for a study of the impact of different forms of policy (agricultural technologies, microfinance and food for education) on poverty in Bangladesh. Its baseline are questionnaire surveys conducted by IFPRI some years ago. This study creates a panel dataset through quantitative and qualitative methods. It sequences the data collection into three phases each with a distinct approach..

*Phase 1* - qualitative appraisals of 25 (out of 102 villages) using single-sex focus group discussions to elicit perceptions of change and how these had influenced people's lives. These involved community questionnaires and key informant interviews. The information was used to develop the survey questionnaire and provide a context for the further work.

*Phase 2* – a quantitative survey of a sample of households in the 102 villages using a questionnaire and also a community level survey instrument to obtain basic information on population, infrastructure, services and institutions.

*Phase 3* – a qualitative study of 125-150 households based on the construction of life histories. The main method is semi-structured interviews. The sample will be purposively selected to include households that have accessed public interventions and by the poverty dynamic status of the household (chronic poor, falling into poverty, climbing out of poverty, never poor) as assessed by the Phase 2 survey.

Following the data collection and processing a cross-disciplinary team will analyse the data using quantitative panel dataset techniques and qualitative techniques (Davis 2006).

#### ***6.4 Participatory approaches that yield both quantitative and qualitative data***

##### *(i) Krishna (2006) 'Stages of Progress Method (SoPM)'*

This method has been used in several different countries to assess poverty dynamics and explain the causes of these dynamics (see the paper for a full listing of studies).

Depending on the focus of the study a sample of villages are selected that are intended to representatively sample the rural population to be studied. There are then 'seven steps' to the method.

*Step 1* – Assemble a group that represents the community (sometimes this entails separate male and female groups)

*Step 2* – Explain the objectives to the group

*Step 3*– Participatory methods are used and each group constructs a ‘ladder’ of the stages that households got through when improving their position from being very poor to becoming better off. This is a lengthy process (see Krishna 2006).

*Step 4* – Treating households of today as the unit of analysis, inquire about households’ poverty status 25 years ago.

*Step 5* – Assign households to particular poverty dynamic categories (remained poor, escaped poverty, became poor, remained poor)

*Step 6* – A random sample of around 30% of all households in each category is selected and is interviewed about the causes and contributory factors to their poverty dynamics over the 25 years. Event histories are developed for each household and are checked with community groups in each village.

*Step 7* – Further detailed interviews with households to explore the reasons for their poverty dynamics.

Following the collection of the data the research team writes up its findings with the principal investigator leading this process. Both quantitative and qualitative information is presented.

## **7 Conclusions and Recommendations**

Support for studies that combine quantitative and qualitative approaches has been rapidly increasing in recent years and is promoted by leading quantitative and qualitative researchers and by people drawn from different disciplines. Knowledge

about the different ways in which productive combinations might be designed has also grown and concrete examples of Q-squared approaches are available. The case that well constructed Q-squared studies triangulate data and can produce deeper understandings of economic and social change or policy impacts by combining the strengths of each approach has much support. However, the potential benefits need to be compared to the increased costs of Q-squared studies in terms of finance and time and the additional risks of unproductive team ‘tensions’.

The types of combination that GDN should pursue will depend on the specific objectives of its research projects, the resources available and how much it wants to develop the possibility for cross-country comparisons of country level findings. Levels of resourcing and the time of delivery for studies will also be crucial.

There are three main questions that need to be asked.

(1) **Should the studies be largely self-contained** (and produce all of their own data) **or should they be partially opportunistic or fully opportunistic?**

Opportunistic strategies are likely to have lower costs and be quicker to conduct. However, they can only be pursued where high quality data is already available and they can impose severe restrictions on what issues can be examined and the levels of confidence in findings. GDN’s *Understanding Reform and Impact of Rich Countries’ Policies on Poverty* projects were fully opportunistic. By contrast, *Development on the Move* could be designed to be much more self-contained.

- (2) **What mix of methods should be adopted** – quantitative and participatory, quantitative and ethnographic, all three or a participatory approach that yields both quantitative and qualitative data? This will depend on the issues under examination, the time frame, the resources and the availability of key personnel – especially whether an experienced ethnographer/qualitative sociologist is available. The ‘ideal’ model is to pursue quantitative, ethnographic and participatory approaches if conditions permit. My preferred ‘fall back’ is a quantitative and ethnographic approach because of my belief in the insights that can be gained from detailed open ended interviews with individuals about the changes in their lives, the specific processes that they believe shaped these changes and their accounts of the ways in which they employed their personal agency to try and achieve their goals. GDN’s *Understanding Reform* project was quantitative but used its data to create an analytical narrative. Arguably, it might have deepened understanding even further by employing an ethnographic approach to understand the factors that key informants (senior civil servants, politicians, donors and elite observers) identified as explaining reform or opposition to reform. The *Development on the Move* project appears to be suited to a combination of survey and ethnographic approaches. Quantitative work is essential to capture the scale of the processes involved. Qualitative work is essential as understanding the detailed processes involved (bribing officials for visas, illegal entry, sex work and drug dealing etc) will be under-reported (perhaps not reported at all) in formal surveys.
- (3) **How should approaches be combined?** Should they be merged, sequenced or concurrent? My preference is for sequencing (as illustrated by the Baulch et

al 2006 study in Bangladesh – see above) that looks at the strengths of each method and times their use to maximize their contribution to the overall study in terms of the data they generate and the improvements they yield for subsequent methods. This will often lead to qualitative-quantitative-qualitative sequences of method. For *Development on the Move* a sequenced approach looks most suited, as long as the project is not under pressure to deliver results quickly.

If really pushed, then I would make two over-arching recommendations to GDN.

- If finances and time are not too constrained and authoritative findings are required/demanded – a self-contained, Q&E&P study with sequenced application of methods. (The Baulch et al (2006) methodology provides good guidance on this).
- If there are limited resources and time is pressing – a partially opportunistic Q&E study based on existing survey data (LSMS, DHS or other) and relatively rapid ethnographic research (of individuals/households or key informants) after an initial analysis of the quantitative data.

Finally, while Q-squared research teams need to have high levels of technical ability they also need to have the right attitudes – listening and respecting other disciplines and methods. The principal investigators and other team members must come to the exercise with respect for the approaches of others and a common agreement that they are all committed to rigor but that this will mean different things for different methods and forms of analysis. The study by McGee (2004) illustrates the sterility of ‘we are right, you are wrong’ (my inverted commas) arguments when Q-squared approaches

are adopted. Apparently contradictory findings may, on detailed analysis, yield deeper insights into what is happening and why, than what would be produced by a single approach. If you have two eyes it is best to keep both open.

## Notes

<sup>1</sup> For poverty studies one could argue there has been retrogression, given that the field's founding fathers – Charles Booth (1892) and Seebom Rowntree (1901) – both used quantitative and qualitative approaches in their seminal works.

<sup>2</sup> In the extreme this is a capitalism versus socialism confrontation.

<sup>3</sup> See for example Hulme and Toye (2006) or Clark (2006).

<sup>4</sup> Much of the best work on combining qualitative and quantitative approaches focuses on sub-national analysis (see White 2002 for discussions of labour exchange in parts of rural Africa and the relations between mortality and dietary beliefs) and on specific programmes (see Hulme and Mosley 1996 on microfinance).

<sup>5</sup> In addition, in recent times development has placed a great emphasis on '\$1 a day' poverty reduction and this leads to a focus on Sub-Saharan Africa and South Asia.

<sup>6</sup> For a discussion of these see Kanbur and Shaffer (2006).

<sup>7</sup> The image of a 'divide' is fuelled by the sharp, and sometimes bitter, exchanges that occur between researchers in different disciplines. Most visibly, anthropologists (Hill 1986), political scientists (Chambers 1983) and sociologists (du Toit 2005) have attacked neo-classical economists for valuing only what is measurable and often generating figures through questionnaire surveys that they believe lead to invalid findings. In response, neo-classical economists can joke about anthropologists and their anecdotes – being the dominant discipline in development means that they rarely feel it necessary to go into print. There are also tensions between the different 'camps' within disciplines such as sociology (Thompson 2004: 240). Also see Appendix 1.

<sup>8</sup> There are also approaches that combine more than one technique. For example, Clark and Qizilbash (2006) used an open ended questionnaire to collect qualitative information regarding the essentials of life in parallel with a standard LSMS to compile estimates of 'core' poverty in South Africa.

<sup>9</sup> I do not discuss 'retroductive' approaches in this paper.

<sup>10</sup> It is important to note here similarities and differences between the evolution of the social sciences in Europe and North America. Economics and anthropology in the two regions have tended to follow similar paths. Economics in both Europe and North America has become increasingly mathematical and/or based on the manipulation of large, quantitative datasets. At the same time rational choice theory has increasingly provided the analytical framework for the work of economists. Similarly, anthropology in both regions focuses on the application of the ethnographic method to examine the understandings that people have of the social and physical worlds and has been influenced by post-modernism. In marked contrast, sociology and political science in Europe have diverged from North America. While in Europe the disciplines have increasingly focused on qualitative data and shifted towards critical realism and post-modernism, in North America the disciplines have become more positivist, mathematical and/or seek to analyse large quantitative datasets.

<sup>11</sup> While I regard myself as a reasonably open minded person I would not be prepared to sit down with my neighbours to publicly discuss our relative incomes, health status, breakdowns in relationships, consumption of alcohol and other factors.

<sup>12</sup> Similar criticisms have been levelled at regression analysis. Among other things the selection of control/dummy variables can influence the power and significance of statistical associations between variables.

<sup>13</sup> For example, if the decision to adopt a Q-squared approach for a country study means that budgets are so tight that the quantitative side of that study is forced to work with a sample size that is insufficient to be nationally representative, then this assumption would be invalidated – and, the entire quality of the study would be compromised.

<sup>14</sup> In my personal research I have found that open-ended interviews with key informants and life histories can provide deep insights into the positive and negative roles of activities such as poaching, drug dealing and violence in poor communities. Formal surveys rarely mention such important economic activities.

<sup>15</sup> In South Korea the economic bureaucracy argued that it had sought political approval of the types of reform ‘imposed’ by the IMF in 1997 and 1998 previously. However, ‘it was only when the politicians could blame the reforms on the IMF that they could be introduced’. In Hungary, World Bank economists reported that they were amazed at the severity of the 1994 reforms. The IFIs had pushed for fiscal discipline but they had never suggested down-scaling disability allowances which were such a tiny component of the welfare budget (and were likely to be politically sensitive).

<sup>16</sup> Arguably, a high quality Q-squared exercise might reveal and explain the uncertainty of any predictions about the results that might be produced by a development policy intervention or reform in a specific context. While this would be an accurate assessment of the situation it is likely to be ignored by policy-makers who prioritise research that yields more certain conclusions – ‘good policy’ or ‘bad policy’ are the types of findings they prefer.

<sup>17</sup> For example, commonly in opportunistic studies based on LSMS surveys researchers will explicitly or implicitly indicate that poverty has to be understood to be much more than simple income poverty and that human development is a more appropriate concept. Then, because of the limitations of the dataset they are working with, they will measure poverty solely in terms of income poverty.

<sup>18</sup> Ethnographic and participatory approaches are not covered as these are unlikely to have a ‘quantitative’ component.

<sup>19</sup> At the extreme I have attempted to look at the implications of the life history of a single household for policy in Bangladesh (Hulme 2004).

<sup>20</sup> I have not myself attempted multi-study reviews of PRSPs and PRSs. However, in the one PRSP I have observed (Bangladesh) and from the accounts of colleagues I understand that the participatory component of PRSs is most often a supplement to quantitative studies and not an equal.

<sup>21</sup> Do note that the SoPM could also be mixed with quantitative survey approaches and ethnography. It does not have to stand alone – but, by standing alone it acquires great advantages in terms of modest costs and short timescales to yield findings.

<sup>22</sup> I have grave doubts about the validity of such an approach to ‘mixing’ as survey enumerators rarely have the skills of ethnography and they are not usually involved at the data analysis and write up stage.

<sup>23</sup> Mea culpa.

<sup>24</sup> I have included the findings of some of my own fieldwork in Uganda in this account.

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