

# ASSESSING COMMUNITY PARTICIPATION IN E-GOVERNMENT

## Context review and development of methodology

David Souter and Rekha Jain – April 2009

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### INTRODUCTION

The purpose of this Panos London project is to develop a methodology which can be used by Panos and other agencies to assess the quality of community participation in the design and implementation of e-government projects/programmes. It is envisaged that this will help Panos and other agencies to make recommendations for improvements in participation in present and future e-government initiatives, which will contribute to the achievement of enhanced outcomes for both citizens and governments. The methodology is particularly concerned with projects/programmes which focus on the delivery of public services, but is also appropriate, with minor modifications, for those whose primary concern is with empowerment.

The project to develop a methodology which is reported in this document was undertaken for Panos in late 2008 and early 2009 by Professor David Souter of *ict* Development Associates *Ltd*, and Professor Rekha Jain of the Indian Institute of Management (Ahmedabad), with the support of Murali Shanmugavelan of Panos London. It comprised four phases, which were:

1. a context review of e-government from the perspective of community participation;
2. design of a provisional methodology for assessment of participation;
3. testing of this provisional methodology in one e-government experience; and
4. refinement of the methodology in light of test experience.

The e-government experience chosen for testing was the e-Gram initiative in the State of Gujarat, India. Research for this phase of work was undertaken during December 2008 and January 2009 by a team coordinated by Professor Jain.

- o Section 1 of this report summarises the context for participation and e-government, and draws attention to some issues raised in current literature.
- o Section 2 sets out the principles and structure of the provisional methodology tested during the project.
- o Section 3 describes the e-Gram experience, assesses the results obtained from testing, and draws conclusions for the development of an appropriate methodology.
- o Section 4 builds on this analysis to present a proposed methodology for use in future analysis of e-government and community participation by Panos and other agencies.

The report that follows draws on Panos experience, on previous work for Panos by Professor Souter, and on the review of e-Gram experience undertaken for the project by Professor Jain. It is not intended to provide a comprehensive literature review or an extensive review of the experience of e-government initiatives worldwide or, for that matter, in India. A more substantive literature review of this kind may be undertaken as part of a subsequent Panos project to assess wider experience in India and elsewhere.

## SECTION 1 : CONTEXT REVIEW

### The meaning of e-government

There is no clearly agreed definition of e-government, but the following represents a broad consensus:

*E-government is understood as the use of ICT to promote more efficient and cost-effective government, facilitate more convenient government services, allow greater public access to information, and make government more accountable to citizens.*<sup>1</sup>

E-government, in this sense, is not simply the application of technology to government, but a systemic development of government which brings together new technology with existing information systems. Like other government processes, e-government systems are dependent on the people who operate them, who will usually need re-training, and on work processes, which will usually need re-engineering. Introducing "ICT" to an administrative process is unlikely to achieve gains unless associated with other changes in government systems.

"ICT", in this context, is understood to mean the use of electronic information and communication technologies – in particular telecommunications, computing and (often, but not necessarily) the internet – to change the ways in which government is managed and/or services are delivered. While broadcasting may be used as part of such initiatives, for example to publicise new services, it is not a primary component of e-government as here described.

The definition of e-government quoted above includes four objectives of e-government initiatives: administrative efficiency, service delivery, access to information, and accountability/empowerment. While some e-government initiatives seek to achieve goals in all four of these areas, most place emphasis on some rather than all of them:

1. Some initiatives are primarily concerned to improve the internal efficiency of government structures, for example through the deployment of payroll and other databases, the digitisation of government records or enhanced communications between government departments.
2. Some are primarily concerned to improve the quality, reliability and effectiveness of service delivery to particular client groups – for example to small businesses (*e.g.* through changes in implementation of tax, customs and regulation) or individual citizens (*e.g.* the supply of certificates, applications for driving licences, *etc.*). Such initiatives may be fully digitised or delivered through intermediaries (*e.g.* government offices, private kiosks); and may or may not include digitised transactions.
3. Some initiatives are primarily concerned with improving public (or user-group) understanding of aspects of their lives and behavioural responses – for example, the use of ICT to extend information about public health issues or to provide resources that will help farmers improve their productivity. Again, these may be focused on end-users or information intermediaries. They may form part of wider public information campaigns also including press and broadcast media.

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<sup>1</sup> Subhash Bhatnagar, *E-Government: from vision to implementation*, New Delhi, 2004, p. 19.

4. Some initiatives focus on participation and accountability, including public consultation (such as online fora) and democratic process (including electronic voting). To date, experiments with such “e–democracy” have mostly occurred in industrial countries.

Advocates of e–government initiatives suggest that they can enable greater scrutiny of the quality of government, potentially challenging and displacing corrupt practice and thereby improving governance. Critics have been concerned about the risks associated with inaccurate data, inadequate data security, the sharing of data between government departments (and perhaps between government departments and other organisations), and abuses of privacy. They have also been concerned with the quality of decision–making and cost–effectiveness of e–government implementation and management.

This study is not concerned with e–government in principle, but with community participation in the design of e–government services. It is therefore concerned with e–government initiatives that directly interface with end–users, in particular individual citizens and, perhaps, micro–businesses (categories 2 to 4 above); and especially with the participation of those in marginalised communities and social groups, whose engagement is of high importance in Panos’ work. The study is not concerned with e–government initiatives whose primary purpose is to achieve improvements in internal government efficiency (category 1).

The delivery of e–government services directed at end–users has varied over time and with experience as well as between different jurisdictions. Most governments which have initiated e–government activity have experimented first with web portals and other information resources (category 3). Some have then enabled online databases and, in fewer cases, provided mechanisms for undertaking transactions (which may be online or through intermediary interfaces such as government offices).

Initial experiments have often been piecemeal activities, undertaken by individual government departments or agencies. However, many governments have sought to establish comprehensive national strategies for e–government, and a more comprehensive approach of this kind has been encouraged by some international agencies.<sup>2</sup> Major challenges in both contexts are posed by two factors:

- a) the rapid pace of change in technology, which can render equipment and delivery mechanisms obsolete within short periods; and
- b) rapid changes in public access, usage and behaviour towards ICTs and other media, which can similarly disrupt delivery strategies.

### **Experience with e–government**

Much of the literature advocating e–government (and ICTs more generally) within development is enthusiastic about its potential. Yet, in the words of one recent literature review, ‘the bitter truth that presents itself is that the majority of e–government projects in developing countries fail.’<sup>3</sup> The e–government specialist Richard Heeks estimates a failure rate upwards of 60%.<sup>4</sup>

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<sup>2</sup> Comprehensive national ICT strategies, including e–government, have been advocated, notably, by the UN Economic Commission for Africa: see [www.uneca.org/aisi/](http://www.uneca.org/aisi/).

<sup>3</sup> Danish Dada, ‘The Failure of e–Government in Developing Countries: a literature review’, *Electronic Journal of Information Systems in Developing Countries*, 2006, at <http://www.ejisdc.org/ojs2/index.php/ejisdc/article/viewFile/277/176>

Even where initiatives are broadly successful, they typically experience higher-than-expected costs and lower-than-expected gains. Why this should be so is a crucial issue for those concerned with e-government design and implementation.

Tracing e-government success and failure in the existing literature is not as easy as might be supposed. As with much “ICT for Development” (ICT4D) literature, the evidence base as a whole is weak.

- Much experience is too recent for outcomes to have become firm; for lasting impacts – positive or negative – to have become evident; or for substantive analyses of programmes and their consequences to have been undertaken. This is particularly true of large-scale programmes affecting a number of government departments at one time. The literature concerning these in developing countries is still dominated by the enthusiasm of proponents rather than the realism of analysts.
- Most reported experience derives from relatively small-scale, individual projects, and is anecdotal rather than analytical in character. Few evaluations in this area make use of systematic user feedback. Many focus on intermediate rather than final outcomes, *i.e.* on the availability of services rather than their use. Much of the available literature, too, is written by project partners rather than external evaluators, although more critical analysis is beginning to become available.

While some of this more analytical material has illuminated success, for example in the case of the Bhoomi programme to improve access to land management records in Karnataka, some has cast doubt on achievements that have previously been claimed for particular initiatives. Analysis of the Gyandoot programme of government-to-citizen kiosks in Madhya Pradesh, which is delivered through small-scale entrepreneurs, illustrates the way in which assessment of individual programmes has varied over time. Lauded at its inception, it was described in one award citation as ‘a breakthrough in e-government, demonstrating a paradigm shift which gives marginalised tribal citizens their first ever chance to access knowledge, with minimum investment.’<sup>5</sup> Subsequent evaluation, however, has revealed low and diminishing participation by target beneficiaries, technical difficulties and other problems arising from the redistribution of power within communities.<sup>6</sup>

Whatever the experience of implementation on the ground, the experience of assessing programmes like Gyandoot emphasises the importance of clearly distinguishing between programme aspirations and objectives, on the one hand, and programme delivery and outcomes on the other. Understanding real outcomes, in particular, requires attention to the views of end-users (especially target beneficiaries) and others who are affected by them.

Existing e-government literature identifies a number of design and implementation challenges which have affected the quality of outcomes. One of the most significant challenges is characterised by Richard Heeks as the “design-reality gap”, *i.e.* the difference between assumptions made in the design process and reality on the ground – before, during and after implementation.<sup>7</sup> “Design-reality gaps” are likely to be greater where e-government

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<sup>4</sup> Richard Heeks, *Implementing and Managing E-Government: an international text*, Los Angeles, 2006.

<sup>5</sup> Citation for the Stockholm Challenge IT Award, 2000.

<sup>6</sup> World Bank, *Report on Gyandoot Evaluation*, 2002.

<sup>7</sup> Heeks, *op. cit.*, chapter 1, and separate articles.

processes are large and complex, and where they pay insufficient attention to varied local circumstances. Often, e-government managers are pressurised to standardise delivery processes in order to achieve rapid cost savings – a politically-driven objective – while better delivery outcomes would result from more responsiveness to user requirements and user-centric delivery modes.

Many intergovernmental agencies and governments remain committed to large-scale e-government interventions. However, evidence-based assessments of e-government practice suggest that less ambitious, incremental approaches are less prone to failure – whether in administrative objectives and cost savings or in service delivery – and are likely to be more successful. This is partly because they can be more responsive to local demand, changes in technology and other circumstances; and partly because there are fewer opportunities for interactions between technology, management and user behaviour to break down.

### **Service delivery**

This project is concerned with e-government initiatives that seek to improve the quality of life of citizens, rather than being primarily concerned with administrative efficiency or with services to business. As noted earlier, citizen-oriented e-government initiatives are variously focused on service delivery, delivery of information, and empowerment/accountability. The following paragraphs discuss initiatives in terms of service delivery, but the principles described are equally relevant to information provision and (in broad terms) to initiatives aimed at facilitating empowerment.

As with all project/programme management tasks, there are a number of distinct stages in the management of e-government projects, which can be summarised as follows:

- identification of the problem(s) to be addressed or opportunity/ies concerned
- design and testing
- initiation and early stages of implementation
- full implementation and programme management
- evaluation and impact assessment
- and finally review, modification and development of the initiative for the next phase of programme delivery.

Service delivery initiatives generally have objectives from both supply and demand sides of government. From the supply side, these objectives – which are the concern primarily of administrators – focus on cost savings and administrative efficiency. On the demand side – for users – they are more concerned with the quality, reliability and efficiency of service delivery (and, in some cases, the price, whether fee or bribe).

Supply side and demand side objectives are not symmetrical. Technology enables cost savings and efficiency gains to be made in many areas of government (although governments often underestimate the recurrent and operating costs of e-government and so overestimate potential savings). Experience suggests, however, that demand-side benefits are not likely to be realised unless the services offered provide significant added value to end-users, and unless the methods of delivery are straightforward and accessible to them. As a result, it is only where e-government offers users a significant gain in service quality, a significant reduction in (actual or opportunity) cost, or significant value that could not previously be achieved, that service delivery initiatives are likely to gain user confidence and sufficiently

high levels of use to bring about the desired cost savings on the supply side as well as for users themselves. It follows, fairly clearly, that a detailed understanding of user priorities and concerns is likely to be a crucial factor in determining the success or failure of project design and implementation.

E-government initiatives have numerous stakeholders. These include their parent government departments, champions of e-government within the administration, technology partners charged with implementing services, local government officials (who may gain in power and authority or lose their jobs through the deployment of e-government), information intermediaries (who currently play a brokerage role between end-users and government services), and end-users themselves. Experience suggests that stakeholder analysis is crucial to the successful design and implementation of e-government processes.

It is particularly important to recognise the diversity of stakeholder perspectives. As Bhatnagar puts it:

*Stakeholder analysis will need to distinguish between those likely to benefit, those who will be largely unaffected, those who will suffer minor losses of benefits, privileges, status or power, and those who are likely [to] suffer major losses. ... The analysis must include both informal reality as well as formal arrangements.<sup>8</sup>*

In practice, much e-government design has resulted from contests within government, with little attention being paid to other stakeholder interests, including those of supposed beneficiaries. Experience suggests that better outcomes would result from more attention being paid to these external stakeholders, particularly to target beneficiaries (in aggregate and disaggregated into diverse social, including gender, and economic groups).

### **Community participation**

The desirability of consulting stakeholders, including target beneficiaries, and of engaging them in development processes, has been increasingly emphasised by development agencies. A 1995 study by the World Bank of participation in water projects, for example, showed that:

*The proportion of water systems in good condition, overall economic benefits, percentages of the target population reached, and environmental benefits rose significantly with participation. ... Participation was the single most important determinant of overall quality of implementation. ... The impact of participation throughout the project cycle was [also] significantly greater than it was during any single stage.<sup>9</sup>*

More recently, the Poverty Reduction Strategy Papers advocated by the World Bank were expected (in principle) to be developed in consultation with the poor, using techniques such as participatory studies of the origins, impact and possible alleviation of poverty<sup>10</sup> – although

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<sup>8</sup> Bhatnagar, *op. cit.*

<sup>9</sup> *The Contribution of People's Participation: Evidence from 121 Rural Water Supply Projects*, available at <http://nzdl.sadl.uleth.ca/cgi-bin/library?e=d-00000-00---off-0envl--00-0--0-10-0---0---0prompt-10---4-----0-11--11-en-50---20-about---00-0-1-00-0-0-11-1-0utfZz-8-00&cl=CL1.1&d=HASH0161139fa7e42af4c91e8415.5&x=1>

<sup>10</sup> See World Bank, *PRSP Sourcebook*.

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTPRS/0,,contentMDK:20175742~pagePK:210058~piPK:210062~theSitePK:384201,00.html?>

these precepts have not necessarily been honoured in practice. Some bilateral agencies and many development NGOs have placed emphasis on much more extensive local dialogue and consultation to determine the nature, content and methodology of local projects – for example, Action Aid’s Reflect agenda and Plan International’s “child-focused community development” approach. A commitment to community participation is also central to Panos’ thinking about development and empowerment.

However, rhetoric about community participation is not necessarily matched in practice. The UN Food and Agriculture Organisation, for example, acknowledges that project failure due to lack of beneficiary participation has been recognised since the 1970s, yet ‘... the lack of feasible mechanisms to attain effective beneficiary participation is still a major deficiency in project designs....’<sup>11</sup>

The literature suggests that much e-government practice, in particular, follows a centralised, top-down approach with insufficient consultation. A number of reasons are cited for this, including these:

- Some e-government programmes, especially those within national ICT strategies, are conceived as large-scale “modernisation of government” initiatives, designed to deliver across-the-board improvements and cost savings, for example through centralised procurement.
- Programmes are often conceived as being concerned primarily with technology rather than with information, and so led by technologists rather than mainstream (service delivery) managers.
- Managers are often impatient to achieve results, and therefore often see analytical and consultative processes as time-consuming barriers to early outcomes.

In practice, as noted earlier, the evidence to date suggests that large-scale, centralised e-government programmes are more prone to failure because of their very complexity and the requirement for synergies to be achieved between different programme components. Small-scale projects seem to be more manageable and less likely to be thrown off-course by unexpected problems, for example with inadequate connectivity. Although governments continue to plan for large-scale initiatives, there is increasing sentiment among e-government analysts in favour of a more incremental approach.

This distinction between large- and small-scale options reflects a similar difference in development policy and practice, between strategies which focus on the macro-level delivery of development outcomes, at national level, and those which focus on changes at a micro-level, in individual communities. In practice, of course, achieving development objectives usually depends on a combination of macro- and micro-level activity: of Millennium Development Goals and national economic strategies at the top level, with responsive and proactive action by local government, NGOs and individuals to maximise opportunities in communities. (Local activity is probably more important in developing countries, where the capacity of central government is weaker than it is in industrial countries.)

Community participation in government (and especially e-government) design and implementation is not yet widespread. Proponents of community participation (including Panos) advocate it partly on normative grounds – as a component of democracy – and partly

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<sup>11</sup> FAO. *Participatory Development*, 2003.

because they believe it tends to improve the efficacy of government activity, by making it more responsive to community priorities and more aware of community preferences.

Consultation and participation, in this context, can take place at different levels, and do not necessarily imply decentralisation. Consultation with stakeholders (including civil society organisations representing the poor) can take place even in highly centralised programmes which seek to deliver common e-government practice throughout national territory.

However, a common standard of service delivery is not necessarily achieved by using the same delivery methods in every community. Indeed in developing countries, where there are commonly substantial differences – of language, culture, demography, income and educational levels, and connectivity – between local communities, the same delivery mechanism is likely to lead to different or unequal rather than common or equal delivery outcomes.

As a result, local variations in delivery mechanisms are often necessary to achieve the same quality of delivery in different areas. A first step in enabling better local delivery of national programmes is therefore, often, recognition of this value of local adaptation at a programme management level. In some cases, local officials are given responsibility for identifying appropriate variations and finding the best ways of accommodating these within a centralised structure. However, much development policy thinking now advocates a much stronger role for direct citizen/beneficiary/user engagement in such adaptations.

One example of this is the ‘participatory rural appraisal’ approach commended by the World Bank.<sup>12</sup> This seeks to use ‘approaches and methods that emphasize local knowledge and enable local people to make their own appraisal, analysis and plans’ – including ‘group animation and exercises to facilitate information sharing, analysis, and action among stakeholders’ – in order ‘to enable development practitioners, government officials, and local people to work together to plan context appropriate programmes.’ Similar processes are advocated by many development NGOs.

The International Association of Public Participation has summarised the different depths of participation as follows:<sup>13</sup>

<i>Depth of participation</i>	<i>Objective</i>
Information	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives and/or solutions.
Consultation	To obtain public feedback on analysis, alternatives and/or decisions.
Involvement	To work directly with the public throughout the process to ensure that public issues and concerns are consistently understood and considered.
Collaboration	To partner with the public in each aspect of the decision, including the development of alternatives and the identification of the preferred solution.
Empowerment	To place final decision-making in the hands of the

<sup>12</sup> See World Bank, *Participation Sourcebook*, at <http://www.worldbank.org/wbi/sourcebook/sbhome.htm>, in particular Appendix 1.

<sup>13</sup> Cited in United Nations, *People Matter*, 2008, p. 108.



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It should be noted that this does not offer a hierarchy of desirability, but a menu of alternatives. Nevertheless, it provides a useful framework which can be used for considering levels of participation throughout the project cycle.

**Community participation in e-government**

The case for community participation in e-government is well summarised in a recent comment on the Development Gateway’s e-government site:

*Participation of citizens is critical to the democratic process and to the effective performance of e-Governmental services and systems. With the advent of e-Government, citizen participation also becomes critical in the conceptualisation, planning, development, implementation, evaluation, and reflection phases of application development.*<sup>14</sup>

Yet the evidence suggests that participation is largely absent from the design and implementation of e-government initiatives today, even in industrial countries, and that much apparent consultation is superficial or cosmetic. As this Development Gateway contribution continues:

*Unfortunately, the experience and expertise of citizens is often minimised in e-Government development contexts. Ignoring the perspectives and input of citizens can result in systems that are difficult to use, inaccessible to some people, inequitable, ineffective, untrusted, or otherwise not accepted.*

Many e-government projects are technology-led, and mainstream government managers often seem reluctant to challenge technical expertise or assume management of what they see as technical projects. There is, likewise, often pressure to implement projects quickly, in order to achieve cost savings or simply demonstrate that activity is underway, allowing too little time to engage constructively with target beneficiaries or consult on most effective delivery modes.

Experience suggests that this lack of interface with users causes problems at many points within the project cycle. In particular, observers report instances in which service delivery mechanisms are established which address issues that are not important to end-users, or that seek to deliver services in ways which are less convenient than existing “non-e” government has been. Even where this is not the case, lack of consultation with end-users is likely to lead to sub-optimal service outcomes – for example, overcomplicated portals and user interfaces. The most effective e-government services will be those that have high levels of saliency for large numbers of end-users and which are designed and delivered in a user-centric manner.

Development and other experience shows that consultation and participation processes are highly important in achieving such outcomes. Users generally know best what they want and the best way for them to get it, from their point of view. However, experience suggests that it

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<sup>14</sup> Contribution by Eliachim Ishimwe at <http://egovernment.developmentgateway.org/Content-item-view.10976+M52f7a710081.0.html>. A more detailed call for citizen participation in e-government design and implementation can be found in the Pacific Council for International Policy’s *Roadmap for E-Government in the Developing World*, 2002.

is also important to recognise that user preferences may not be feasible or optimal when set alongside other criteria (such as cost, connectivity and technical effectiveness). Good practice suggests that a knowledge of user preferences is essential if the configuration of services is to be optimised, but that it should form part of the development of a consensus across stakeholders in the initiative, including government managers, technology partners and service delivery personnel as well as users.<sup>15</sup>

### **Challenges of assessing community participation.**

There are, of course, many challenges involved in community participation. These challenges need to be incorporated in any assessment of community participation in e-government. In addressing these, it is essential to recognise the diversity within communities: to look not for a common response to an initiative, but to a range of responses which reflects the differences between people within communities.

Many of the challenges of e-government and of community participation focus on three areas of inequality: inequalities in society itself (for example, between men and women, literate and non-literate, “rich” and “poor”); inequalities in access to government services (which often discriminate against marginalised communities); and inequalities in connectivity and access to e-government. Two issues arise from this.

There is firstly an issue related to participation in services. Experience suggests that many e-government services are more accessible to the most advantaged within society and, perhaps more importantly, least accessible to the most marginalised. Indeed, in societies where the large majority of people have domestic access to computers and the internet, the most socially excluded still tend also to remain digitally excluded. Enabling the most marginalised to participate in e-government opportunities requires action to address issues of skills and trust as well as connectivity and access to services. Assessment processes that focus only on the experience of users will fail to understand those factors which inhibit use amongst non-users. The latter also need to be included in assessment.

There is secondly an issue related to participation in the design, management and evaluation of services. Participation in consultation processes is even more likely to be skewed in favour of the socially advantaged than participation in services themselves. If consultation processes are to be socially inclusive, they require measures to facilitate representation of the marginalised – perhaps through representative NGOs, perhaps through “market research” type activities, perhaps through training and proactive processes that target those less likely to participate. Assessing community participation, therefore also requires assessment of the breadth and depth of social inclusion found within it.<sup>16</sup>

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<sup>15</sup> The E-Government for Development Information Exchange argues that ‘In moving from [the] design phase to the implementation phase, [e-government managers should] change from democrat to autocrat.’ See [http://www.egov4dev.org/success/techniques/factors\\_project.shtml](http://www.egov4dev.org/success/techniques/factors_project.shtml).

<sup>16</sup> The Overseas Development Institute also warns that ‘the disadvantaged tend to be consulted not so much because of their stake in the project, but because they happen to live in or around the project site or are unintentionally affected by ... components of the project.’ ODI, *Mainstreaming Public Participation in Economic Infrastructure Projects*, Briefing Paper 1998(3), at <http://www.odi.org.uk/resources/odi-publications/briefing-papers/1998/3-mainstreaming-public-participation-economic-infrastructure-projects.pdf>

## SECTION 2 : DEVELOPMENT OF A METHODOLOGY

The second phase of the project reported here concerned the development of a pilot methodology for assessing community participation in e-government which could be tested in one selected e-government experience before modification and wider application.

### Objectives for a methodology

Panos' work and experience strongly emphasise the value of community participation. For Panos:

#### INSERT QUOTATION.

Section 1 of this report concludes that community participation in the design and implementation of e-government – if it is taken seriously by programme managers – should contribute towards making e-government initiatives more responsive to local needs, more effective in delivering services to diverse communities, and so, ultimately, more effective in meeting other administrative targets including cost-efficiency. It also notes, however, that community participation has not been widespread in the design and management of e-government, which have often prioritised technological factors or the financial and bureaucratic gains anticipated from centralised procurement or delivery systems.

Panos' objective in its work on community participation in e-government is threefold. It is concerned:

- firstly, to understand the extent to which community participation is currently taking place within the design and implementation of e-government initiatives aimed at service delivery and empowerment;
- secondly, to compare experience between different initiatives, identifying where possible the impact of different types and levels of participation on e-government outcomes;
- and thirdly, to use the evidence base provided by this comparison to enable recommendations for improving participation (and, thereby, outcomes) in both present and future e-government initiatives.

The present project is intended to develop a methodological tool which can help Panos address these objectives. Any such tool must be capable of use in diverse circumstances across the developing world, not least in order to allow comparisons between different contexts. It therefore needs to be robust in different cultural environments, for different kinds of information and service delivery, and in circumstances where initiatives have proved successful or unsuccessful in achieving their objectives. It must also allow for adaptation and variation to meet these different circumstances. The remainder of this report is concerned with the design, testing and proposal of such a methodology.

Three main issues concerning the relationship between initiatives and participation need to be borne in mind in designing a methodology to meet this purpose.

1. E-government projects follow the same broad project lifecycle as other government and development initiatives, a lifecycle which is summarised in Section 1 above as a process:
  - leading from the identification of the problem(s) to be addressed;

- through intervention design;
- to implementation and management;
- to evaluation and impact assessment;
- and back to programme review and modification to suit changed circumstances.

Assessment of community participation should consider all stages in this project lifecycle. How extensively were target users (and others in the community) consulted about the issues to be addressed? How were they (and relevant NGOs) involved in the design of services to meet their needs? How are they involved in implementation, management and evaluation? How are their views being taken into account as services are redesigned and developed for the future?

2. Community participation is only one of a number of factors which determine the relative success or failure of an initiative. Others include the quality and competence of management, engagement of other stakeholders including service personnel, salience of services delivered, training of delivery personnel and users, reliability of equipment and underlying infrastructure, and degree of improvement achieved in the quality of service delivery. All of these may themselves be improved to some extent by community participation, but overall success or failure cannot be attributed to community participation alone.
3. Communities are not homogeneous. Changes in the quality of service delivery may be experienced more or less intensively by some user-groups within a community (men or women, rich or poor, literate or non-literate, more or less highly educated, *etc.*) than by others. Consultation and participation processes, likewise, may be skewed in favour of certain social groups. Experience suggests that innovation and consultation alike often focus on the articulate and socially advantaged rather than the poor and marginalised. This is especially likely to be so where initiatives require skills such as literacy or the personal use of computer terminals. Any assessment methodology must seek to capture this diversity of experience within communities. Panos is also particularly concerned to understand and enhance the experience of social groups that are often marginalised, such as women; older people; the poor, illiterate and poorly-educated; and socially-disadvantaged communities such as (in India) scheduled castes and tribes.

## **Methodology**

The provisional methodology designed from these objectives by the research team was concerned specifically with community participation in the design, implementation and management of e-government initiatives, rather than with the outcomes of service delivery.

What do we mean here by “community participation”? Four points are central to the term as interpreted in this project, concerned with the purpose, timing, level and depth of participation. The methodology designed should offer insights in all four of these areas.

The first concerns the *purpose* and ethos of community participation. As indicated earlier, this varies substantially between different contexts, experiences and the ethos of different administrations. Three main types of purpose can be identified, however, which can be described as follows:

- normative – *i.e.* based on an approach to relations between the state and citizens which prioritises citizen needs and preferences, and attributes high value to public involvement as an objective in itself – an approach which is led from below rather than above and is associated with objectives of empowerment;
- instrumental – *i.e.* primarily concerned with improving the quality of service delivery through better understanding of citizen needs and preferences;
- and managerial – *i.e.* primarily concerned with improving the efficiency and cost-effectiveness of administration through better targeting of resources as a result of better understanding of citizen needs and preferences.

Different experiences place different values on these three types of purpose. Panos believes that community participation should have normative as well as instrumental and managerial objectives. If it does, then programme managers should see participation as central to implementation, rather community engagement should become pervasive rather than peripheral to implementation.

The second point concerns the **timing** of participation, in particular when participation activities are undertaken within the project implementation cycle. The principal stages here have already been identified as follows:

- problem identification
- design and testing (including the establishment of monitoring benchmarks)
- initiation and early stages of implementation
- programme management
- monitoring
- evaluation and impact assessment
- modification of programme for subsequent implementation phases.

Community participation can take place at any or all of these points in time within a programme. Where it takes place at all stages, administrative structures can make each stage distinct or integrate all into a single, more pervasive approach. Panos believes that community participation has high value at all stages, and that the cumulation of participatory engagement adds additional value to that which results from its inclusion at any individual stage (“the whole is more than the sum of its parts”).

The third point concerns the **level** of participation, particularly in large-scale programmes – such as e-Gram – which are deployed in many different communities. Community participation can take place at an overall – in the case of e-Gram, state-wide – level, through large-scale public consultation exercises, market research, engagement with critical opinion formers, *etc.* This large-scale selective participation will inform the overall choice of implementation strategies at a general level (including such aspects as software selection).

It will, however, necessarily average out significant differences between local communities which are likely to affect the quality (and equality) of programme delivery at a local level. These differences will include variations in geography, in language, social structure and culture, in educational and income levels. The most important problems faced locally will differ between communities, as will the best means of delivering services to reach all community members, including marginalised groups (which may include women). These aspects of programme implementation will only be identified through community participation

at a local level and if there is sufficient flexibility in programme management to allow variations that address these differences to be incorporated.

Panos believes that community participation is therefore necessary at both programme-wide and local levels, and that successful e-government programmes are likely to include significant flexibility in management to respond to local needs and priorities.

The fourth point is concerned with the *depth* of community participation. The different depths of participation are well described in a table from the International Association of Public Participation which was included in Section 1 of this report and is repeated here.

<i>Depth of participation</i>	<i>Objective</i>
Information	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives and/or solutions.
Consultation	To obtain public feedback on analysis, alternatives and/or decisions.
Involvement	To work directly with the public throughout the process to ensure that public issues and concerns are consistently understood and considered.
Collaboration	To partner with the public in each aspect of the decision, including the development of alternatives and the identification of the preferred solution.
Empowerment	To place final decision-making in the hands of the public.

Panos believes that the greater the depth of community participation that is included in a programme, the more likely it is to achieve its instrumental and managerial objectives, and also to facilitate greater democratisation and empowerment within society.

It was recognised from the start of this project that assessment of community participation cannot be divorced entirely from assessment of the outcomes experienced by programme/project managers and target beneficiaries. It is necessary to have some understanding of the overall achievements of an initiative (against objectives and more generally) in order to place its community participation experience in context. The methodology proposed had therefore to look at “real outcomes” as well as at the extent of community participation and at user perceptions of what has taken place.

Four core research questions were proposed for the provisional methodology itself, as follows:

1. To what extent has community participation been incorporated in the design, implementation, management and evaluation of a) e-government initiatives in general and b) specific e-government initiatives?
2. To what extent has such community participation influenced the actual design, implementation, management and evaluation of such programmes/projects?
3. To what extent has this affected the outcomes of such programmes/projects?
4. What forms and styles of community participation have been used and have proved most effective in influencing implementation and outcomes?

In addition, four research questions were put forward for the process of testing the viability of this methodology on the ground, as follows:

1. Does this methodology achieve insight into community participation and into the relationship between community participation and e-government success/failure?
2. Is it practicable (in terms of stakeholder engagement and financial viability)?
3. Does it require significant adjustment to meet the circumstances of individual projects and/or locations? – and, if so, in what ways?
4. How can it be improved for further testing and implementation?

The provisional methodology that was developed to address these questions sought to incorporate the perceptions or participation of diverse stakeholders, diverse groups within the community (including both service users and non-users) and diverse communities within the state (*i.e.* communities with diverse socio-economic composition, including communities with high levels of marginalisation). It also sought to combine quantitative data (particularly concerning programme outcomes) with qualitative findings from these different geographical and stakeholder communities. As a result, the provisional methodology proposed for testing brought together a number of different methodologies, as follows:

1. Review of overall programme documentation, including reports of any consultation processes, community fora *etc.*, monitoring and evaluation data and reports.
2. Semi-structured interviews with senior programme managers.
3. Selection of at least three locations within the initiative for local assessment, which should represent areas of significant social or cultural diversity.
4. Assessment of local usage data (if available).
5. Questionnaire-based structured interviews with local service users and non-users concerning their experience.
6. Semi-structured interviews with local service delivery personnel.
7. Focus groups with local opinion leaders / information intermediaries and with groups of service users.
8. Analysis of findings, including review meeting with senior managers and other stakeholders.

It was recognised from the start that this was a comprehensive, perhaps something of an ideal methodological approach, which it might not be possible to achieve in all circumstances on the ground – either because of lack of data or because of lack of limited resources for undertaking assessment. Nevertheless, the research team felt that it was useful to take a comprehensive approach like this as a starting point, so that adaptations and reductions to meet specific circumstances could seek to minimise resultant reductions in quality of evidence.

### **SECTION 3 : PILOT ASSESSMENT STUDY OF E-GRAM (GUJARAT)**

The third stage of the present project concerned the testing of the methodology described above in a particular e-government initiative, specifically the e-Gram initiative in the State of Gujarat, India. The purpose of this pilot study, which was led by Professor Rekha Jain of the Indian Institute of Management (Ahmedabad), was not to provide an assessment of the e-Gram initiative itself – although the work did suggest some interesting areas for further exploration where e-Gram is concerned – but to establish whether the provisional methodology was fit for purpose and/or where adjustments were required to make it more effective in assessing the experience and impact of community participation. Four research questions were therefore asked in this pilot study, as follows:

1. Does this methodology achieve insight into community participation and into the relationship between community participation and e-government success/failure?
2. Is it practicable (in terms of stakeholder engagement and financial viability)?
3. Does it require significant adjustment to meet the circumstances of individual projects and/or locations? and, if so, in what ways?
4. How can it be improved for further testing and implementation?

The implications of the pilot study for these questions are discussed in the final part of this section of the report.

### **E-Gram**

E-Gram is an e-government initiative in the State of Gujarat, India, which is intended primarily to make the certificates required for accessing government schemes more readily available through village administrative bodies (*gram panchayats*).

Gujarat is the second most industrialised state in India and is relatively prosperous in comparison with other states, though still with high levels of poverty, deprivation and inequality. It has 18,544 villages, which are administered – usually alone but sometimes in groups – through village administrative bodies known as *gram panchayats* (GPs), of which there are 13,693 in the state. GPs offer a variety of local services and also provide the local interface for state government departments such as those concerned with agriculture, poverty alleviation, accounts and social welfare. For example, the Agriculture Department at GP level assists and advises farmers and maintains records of inspections; the Social Justice Department protects the interests of disadvantaged groups within villages; and the Poverty Alleviation Department provides grants to those living below the poverty line. The administrative hierarchy for GPs groups them into sub-districts (*talukas*) and districts, with oversight by the Panchayat Department of the State Government in the state capital, Gandhinagar.

The Government of Gujarat has been one of the leading state governments in India in investing in information technology in governance and service delivery, for example implementing a state-wide wide area network (GSWAN) between the centre in Gandhinagar, district and sub-district headquarters. E-Gram is the principal extension of e-government services in the state to village level, and is primarily concerned with the provision of certificates required by villagers.

Certificates are widely required for a variety of purposes which are highly significant in people's lives. Many villagers are poor and need access to loans and subsidies which can only be obtained (from government or some banks) on submission of certificates which verify



income or caste status. An income certificate is required, for example, to obtain government subsidies or access to free health care; a ration card is needed to access benefits from the public distribution system.

A representative list of certificates is set out in Table 1 below.

<b>Table 1: Examples of certificates provided through <i>gram panchayats</i> in Gujarat</b>	
<b>Certificate</b>	<b>Purpose</b>
Income Certificate	To obtain government subsidies and access to services which are available only to the poor, such as free health care.
Caste Certificate	To establish entitlement to jobs, education and other benefits available specifically to members of disadvantaged ("scheduled") castes and tribes.
Proof of residence certificate	Government employment at lower levels is restricted to candidates from a specified district or zone for which the candidate must provide proof of residence (place of actual dwelling).
Domicile Certificate	Proof of domicile (legal home for purposes of voting etc., which may differ from place of residence (above)) is compulsory for admission to colleges and universities, including professional colleges.
Marriage Certificate	A marriage certificate is an official certified copy of the information registered when two people get married, including date and place they were married, their place of birth and residence, and the names of their parents.
Tax Certificate	The GP is responsible for tax collection. The tax certificate shows the general income and wealth, tax class and personal identity number of its holder.
Land Certificate	A land certificate is an official certified copy of the land location and dimension of land belonging to the owner and registered in his/her name.
Birth Certificate	A birth certificate is an official certified copy of the information registered when an infant is born, including who the parents are, and the date and place of birth.
Death Certificate	A death certificate is an official certified copy of the information registered at the time of death, including the date, place and cause of death.

Until recently, these certificates were provided manually and free of cost. At that time, the *talati* would usually batch a number of requests before checking records. Sometimes issuance of certificates could require a visit to another physical location, for example a hospital or primary health care centre, in order to verify birth or death data. This often led to delays. The issue of some types of certificate, notably land certificates, required visits to *taluka* headquarters, as only *mamlatdars* (district revenue collection officers) were authorised to issue such certificates. This led to travel costs and loss of income due to absence from place of work.

A number of problems and inefficiencies were associated with this manual system. The following are examples of problems which are widely cited:

- There was no means of verifying data. Individuals could, and did, for instance, cite different income figures for different purposes – for example in relation to bank loans (where higher income would imply greater capacity to repay) and to government subsidies (where lower income would qualify for greater benefits).
- Physical copies of relevant data were maintained in each GP by an official called *talati*, a government revenue employee. *Talatis* were expected to maintain regular schedules of availability, especially where GPs covered more than one village, but adherence to these schedules was poor and villagers were often unable to obtain certificates when required.
- Although certificates were officially provided free of cost, many villagers reported having to pay bribes in order to obtain the documents they needed, particularly if they wished to do so promptly.
- There was high likelihood of delays resulting from officials batching requests, non-availability of required personnel, large numbers of people seeking certificates at any given time, *etc.*

The Government of Gujarat initiated the e-Gram programme in 2003, with the aim of computerising village records in order to provide a better service to villagers – including prompt issuance of application forms, certificates and other documents, and quick redress of grievances – and more effective monitoring of services at state level. Implementing this vision required the development of the established *gram panchayats* as the delivery points for electronic services from a variety of state government departments, including the provision of basic equipment (computer, printer, VSAT) to each GP, as well as arrangements for managing the e-Gram service (village computer entrepreneurs – see below – and technical support).

Before the implementation of e-Gram, Gujarat Informatics Ltd (GIL) – a state-level enterprise responsible for project promotion and IT implementation which supports a number of state government departments – carried out a needs assessment exercise through discussions in *gram sabhas* (meetings of villagers) and meetings with functionaries at village, *taluka* and district levels.<sup>17</sup> This was accompanied by a survey undertaken in a sample of twenty villages across two districts (Mehsana and Patan).

The following concerns of villagers – with the existing manual system and with additional features and services which might be provided through computerisation – were identified through this needs assessment:

- the need for villagers to visit *taluka* headquarters for certificates;
- differential pricing for the poor;
- the pricing of computerised services, when these became available;

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<sup>17</sup> See

<http://www.csdms.in/conflux/Proceedings05/Presentations/Day%20II/UNDP%20ICTD/Neeta%20Shah,%20Gujarat%20Informatics%20Ltd.pdf>

- the potential availability of additional computerised services concerned with health, agriculture, employment and the possibility of interaction with doctors, veterinary specialists, *etc.*

It was decided that a computerised system would be able to address some of these concerns, and this led to extensive change management activity. Representatives from GIL and the Panchayat Department of the state government (the department responsible for village-level activities and rural development) were given training in change management, capacity building and implementation. Subsequent training was provided to functionaries in the Panchayat Department and to village-level officials.

A survey form was then designed to collect information from rural households. The task of collecting and compiling the data was allocated to two private agencies. Some data were validated or augmented from external sources including the Census and the “Below Poverty Line” household database which is maintained by the government for development planning purposes.

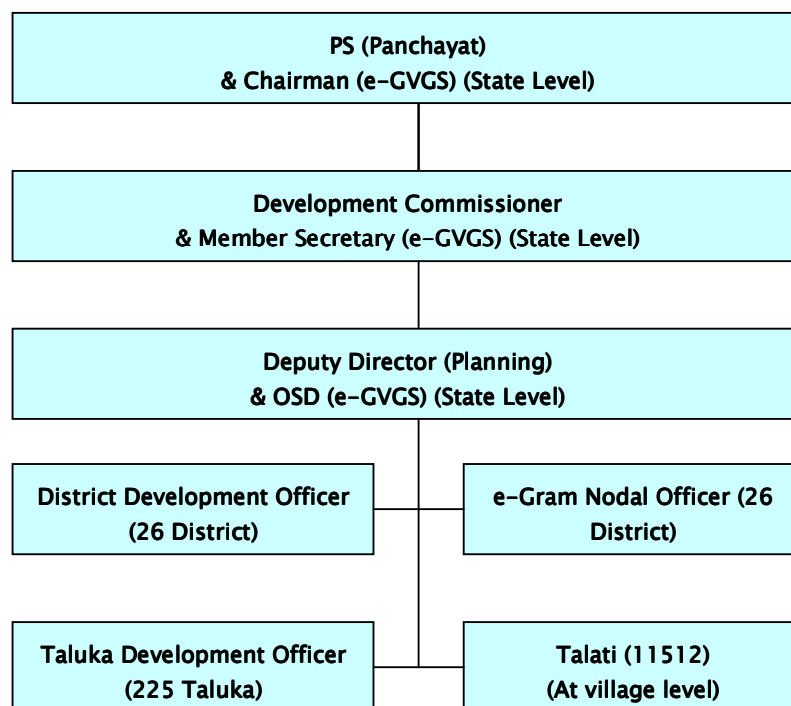
GIL was initially the lead organisation for conceptualising and piloting e-Gram. Subsequently, in order to provide more focus in implementation, a special purpose vehicle was established under the name e-Gram Vishwagram Society (e-VGS). The chair of e-VGS is the Secretary to the Panchayat Department of the state government, while the Development Commissioner is nominated as Member Secretary. The state level administrative hierarchy is thereby entrusted for managing the implementation of e-Gram. There is also a centralised process for monitoring implementation of the programme across the state.

In addition to certification, the state government envisages that e-Gram will provide a channel for other services, including commercial and government services. It has included within the e-Gram remit the provision of a public telephone service using Voice over IP facilities and web cameras, in order to promote easy access to communications for villagers who do not have private access to telephony.

Within each village, an individual “village computer entrepreneur” (VCE) was selected to run the e-Gram service. In the initial implementation stage, there was a district-level selection process. Selection criteria required potential candidates to be residents of the village concerned, to have basic knowledge of Microsoft Office, and to be proficient in typing/keyboard skills. In later phases, VCEs were selected by the *taluka panchayats* rather than at village level, possibly with a view that more influential local people might otherwise influence the selection process.

The VCEs run the e-Gram service. They also have the opportunity to provide other computer, internet and telecommunications services on a commercial basis, and to act as bill collection agents. Although not dispensing with the role of the *talati*, whose signature is still often required, the intermediary role of the VCE has reduced villagers’ dependence on *talatis* for the provision of certificates. VCEs are paid by commission – 50% of the fees for certificates go to the VCE, 30% to the *gram panchayat* and 20% to the *taluka panchayat*.

The overall structure of e-Gram is summarised in the following diagram:



Funding is derived from a number of sources, including state and district level budgets, while *gram panchayats* themselves have taken responsibility for site preparation.

Meetings to review the implementation of e-Gram are held quarterly or monthly at state level. Review meetings are also regularly held at district level, at *taluka* level (every quarter), and with local officials (*mamlatdars*, *talatis*, *gramsabhas*, *sarpanchs*, VCE, etc.); and there is an established monitoring process. However, it is not clear from this study how effective this implementation monitoring process has been in practice.

E-Gram was rolled out in a phased manner, based on village population size. Villages with populations greater than 5000 were covered in the first phase (2005/6), with villages with populations between 3000 and 5000 following in the next year and villages with populations below 3000 in the year after that. The project is now operational across the entire state.

#### Implementation of e-Gram services in the villages of Gujarat

Phase	Year	No. of Villages where e-Gram was implemented	Criteria
First	2005-06	3,000	population > 5,000
Second	2006-07	6,000	population > 3,000
Third	2007-08	All the remaining villages	population < 3,000

Initially, only a few certificates – such as those for birth and death – were provided. Over time, the scope of services has been expanded to include land certificates (which requires coordination between village and *taluka* level offices, now managed electronically). The exact sequencing and scope of services has varied between different *gram panchayats*. In addition,

VCEs have worked to provide bill collection services for various utilities and additional consumer services such as booking of rail and bus tickets.

The following table illustrates actual or estimated usage in terms of number of certificates issued during the middle months of 2008. More recent data were not available at time of writing (April 2009).

**Usage statistics of certificates issued at e-Gram**

Month, 2008	7/12 Certificate Issued	8A Certificate Issued	Total RoR Issued	Income Generated (Rs.)
April	13,723	5,872	19,595	1,00,020
May	30,285	13,909	44,194	2,25,105
June	32,373	13,198	45,571	2,31,365
July	37,836	14,977	52,813	2,68,415
August	31,095	12,454	45,549	2,21,805
Total	1,45,312	60,410	2,07,722	8,47,010

Certificate Name	No. of Certificate Issued
Birth & Death	1,34,215
Character	78,133
Farmer	14,272
Other	32,992
RoR (Through Dial up line upto March 08)	1,40,184

Source – e-Gram Vishwagram Project, Varesh Sinha and Vipul Mittra  
[http://www.nisg.org/knowledgecenter\\_docs/B12020003.pdf?PHPSESSID=b4f6885c14b451c5e7b4383c383fa292](http://www.nisg.org/knowledgecenter_docs/B12020003.pdf?PHPSESSID=b4f6885c14b451c5e7b4383c383fa292)

To implement the programme effectively, the e-Gram initiative has undertaken extensive capacity-building for a variety of stakeholders, at state, district and *gram panchayat* levels. Professional computer training has been provided, for example, to nearly 10,000 VCEs and 6000 revenue officials. A programme to deliver training to some 19,000 elected officials at district and sub-district elected officials is scheduled for completion during 2009.

In summary, the e-Gram initiative is a state-wide programme which seeks to improve the provision of official documents which are essential or important to citizens and to service delivery by making these electronically available through facilities in local administrative offices which are managed by small-scale private entrepreneurs. It is implemented through a partnership between the traditional administration (the *gram panchayat*) and a private entrepreneur (the village computer entrepreneur or VCE).

The scale and, particularly, (state-wide) universality of the e-Gram programme are, so far, unique in India. However, the Government of India has initiated a national public-private partnership which aims to establish 100,000 “Common Services Centers” (CSCs) nationwide, approximately one for every six villages in the country. These CSCs are envisaged as “the front-end delivery points for Government, private and social sector services to rural citizens of

India",<sup>18</sup> and are expected to offer services including electronic ticketing for rail and air services, utility bill payments, communications-enabled health services, market information and other non-official or semi-official services as well as licensing, the provision of forms and other bureaucratic functions.

Gujarat has been one of the leading states in implementing this all-India CSC programme. 6000 Common Service Centers are being developed. CSCs are being implemented through a National Service Level Agency and a number of State Designated Agencies (SDAs). The National Service Level Agency is to set the overall scope of the national CSC project, coordinate across states through the SDAs, develop model contracts *etc.* E-GVGS is the designated SDA to manage CSC roll-out in Gujarat. It is planned that existing e-Gram implementation sites will become CSCs by augmenting the existing resources at e-Gram. No reliable data were available at time of writing (April 2009) concerning the status of integration between the CSC and e-Gram programmes.

### **Experience of e-Gram**

Officials involved in e-Gram who were interviewed for this study were confident that the initiative has established benefits for users and administrators. In particular, they believe that rural citizens have saved time and money because they can obtain certificates in their own communities rather than travelling to *taluka* or district headquarters. However, no formal assessment has yet been made of benefits achieved.

The role played by village computer entrepreneurs may have reduced the authority of *talatis* over the certification process, and the incidence of bribery. The e-Gram programme is also credited with reducing the amount of time spent on certification by local officials, and so improving bureaucratic efficiency.

Officials who were interviewed for this study also identified a number of lessons to be learnt from the process of implementing this new service. Four in particular are worth noting at this point:

1. While the electronic system may improve the accuracy and transparency of certification, the transition from a familiar and understood manual process to an unfamiliar new process which requires users to establish new relationships (with the VCE as well as the *talati*) may be challenging for users as well as for administrators. It may be particularly difficult for poor, less educated and more marginalised villagers than for those with more social and educational advantages.
2. Studies of other kiosk-based information and service systems have shown the selection of kiosk operators – in this case, VCEs – to be critical in determining outcomes, both generally and at local level. The enterprise and communication skills of the operator/VCE can drive up usage (and revenue) by stimulating demand for official services and by introducing commercial services that can be provided alongside these. This has implications for selection and training of VCEs and for the degree of freedom – considerable in this case – which they are allowed in choosing other services to implement alongside e-Gram.

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<sup>18</sup> Government of India, Dept. of Information Technology, <http://www.mit.gov.in/default.aspx?id=825>.

3. Another factor in stimulating demand identified by officials is the extent to which new services are publicised. They believe it is important to make explicit information about e-Gram widely available in media that are accessible to and used by potential users – from roadside hoardings to cable television. This information should include the cost of service, in order to build confidence among potential users. (Information intermediaries such as successful local business people and teachers may also be important here.)
4. Fourthly, officials believe there is a need to design and include a benchmark or market study before implementation, and to undertake a short operational review of the project in the early stages of implementation. A benchmark or market study would help managers to understand user preferences for services, helping them to predict and facilitate uptake and to maximise the efficiency with which services are provided. This is, in effect, a form of consultation or community participation. An early operational review would help with early identification of problems on the ground and enable these to be addressed before they act as disincentives to service use.

One final point should be noted here. The main purpose of e-Gram is to enable certification to take place more effectively. However, certificates are not ends in themselves; their purpose, for both administrators and users, is to unlock access to other services which have more direct impact on people's lives, such as agricultural grants, health services or welfare services for disadvantaged groups. The impact of e-Gram should therefore be judged not just from evidence about use of e-Gram itself, but also evidence about the use of these services which the certificates provided through e-Gram enable citizens to reach.

### **Pilot study**

E-Gram is a large-scale initiative, which has been rolled out on a standardised basis across a large state. However, it is delivered through local administrative agencies and entrepreneurs in local communities which have significant social and economic variations, including levels of literacy, economic prosperity and poverty, occupational and income type, caste and tribal status, and religion.

This combination of large-scale standardisation and local diversity is not uncommon in e-government initiatives, especially where the delivery of public services is concerned. To meet its objectives, an e-government initiative needs to achieve gains – and needs to be evaluated – at both central and local levels.

Assessment of the experience of community participation also requires assessment at central and local levels. As outlined in the previous section, community participation can play a part at different stages in the project cycle (problem identification, initiative design, implementation, management, evaluation) and at different levels (from state-wide consultation or market research to local design and implementation intended to capture the varying needs of different communities).

The pilot study of e-Gram which was undertaken for this Panos project drew on the provisional methodology put forward in Section 2 above and on these points. It consisted of the following elements:

- a small-scale survey of users and non-users of e-Gram services in two communities, selected to ensure some variation in village characteristics;

- a small number of focus groups of users and non-users in these villages;
- interviews with personnel responsible for delivering e-Gram services in the selected villages;
- interviews with a number of more senior state-level personnel responsible for e-Gram implementation as a whole;
- and desk review of the e-Gram programme as a whole, and of the monitoring and evaluation data currently available.

The villages selected – Gadh, Gunja, Jagudan and Jagana – were from two different districts (Banaskantha and Mehsana) and were deliberately chosen for variation in size (for example, Gadh, with a population of 17,000–18,000 is much larger than Jagana, whose population is between 2000 and 3000). It was anticipated that the level of informal community participation might be higher in a smaller village, as the percentage of people knowing one another would be higher. In a larger village, there may need to be more reliance – particularly in awareness-raising and training – on formal mechanisms; though a larger community is also likely to have more technical expertise available. (It is, of course, possible that experience in or expectations of larger communities will influence delivery in smaller communities – or *vice versa*.)

The village surveys were undertaken between 27 and 30 January 2009. Individual interviews and focus group discussions took place during the period preceding this, from 15 December 2008 to 20 January 2009.

For the survey, a stratified purposive sampling technique was used. In total, 144 users and 42 non-users of e-Gram services were interviewed, of whom just over 50% belonged to scheduled castes and tribes and other disadvantaged groups. Just under half of users but only 20% of non-users in the sample identified themselves as farmers. The large majority of interviewees had good levels of literacy.

Women were heavily under-represented, accounting for just 12% of interviewees. This resulted from the focus on service users within the stratified purpose sampling technique. In the economic and cultural context of rural life in the areas concerned, few women are expected to or do perform formal tasks that require them to visit an office where they will interact with male officials. The lower literacy rate among women may also tend to reduce their presence among service users. As the sample size was small and further stratified by size of village and caste, the opportunities for increasing the numbers of women in the sample were limited.

The resulting questionnaires addressed to users and non-users of e-Gram services sought information in six main categories, in addition to the personal identifiers used for classification purposes. These were as follows:

- identification of problems experienced by respondents
- respondents' knowledge of e-Gram services
- respondents' use of e-Gram services
- perceptions of pre-e-Gram manual services
- perceptions of e-Gram user profile
- perceptions and experience of participation in project design and implementation



Similar questions were asked of *talatis* responsible for the villages included in the survey. These focused on:

- respondents' knowledge of e-Gram services
- perceptions of the profile of e-Gram users
- perceptions regarding e-Gram processes used in project design
- and experience of participation in project design and implementation.

Copies of the questionnaires and other project documentation can be found in a separate note by Professor Jain.

### **Findings regarding e-Gram**

It should be noted again, here, that the primary purpose of this pilot study was not to assess experience with e-Gram itself. The numbers of villages and of individuals surveyed within them were below those which would normally be required to provide reliable, statistically-valid samples for assessing experience of e-Gram itself. Nevertheless, a number of points arising from the experience reported by those surveyed are worth noting.

The central components of the pilot study were questionnaires and interviews with citizens (users and non-users) and with officials implementing e-Gram at local level. Tables and other details of interview results are included in a separate report by Professor Jain. The following points record the main findings arising from these interviews with users and non-users.

- Users of e-Gram services had a higher socio-economic profile than non-users. The large majority of non-users interviewed (95%) said that they had not used e-Gram because they had no need for e-Gram services in their lives.
- The large majority of users (89%) and non-users (78%) felt that the profile of users (gender, literacy, wealth, influence, caste) did not affect their ability to obtain services. This was also the perception in sub-groups of non-literate users and those from disadvantaged groups.
- Users had become aware of e-Gram services through a variety of different sources, official and non-official, with newspapers and television identified as the most important single source. Non-users had generally not encountered official information about e-Gram. Awareness of additional facilities that became available through e-Gram offices from time to time was also derived from a variety of sources.
- In most cases, users were (not surprisingly) more aware of services available than non-users. This was particularly true of land-related certificates, which are more relevant to farmers and to higher socio-economic groups. It was not true, however, of awareness of caste certification and the availability of development scheme application forms, which was higher among non-users interviewed.
- The services most used by interviewees were land-related certificates and income certificates. These services are particularly important to farmers. A high proportion of those who had used land certification services (54% of the sample) had used them several times (76% of users of this service).
- Users generally reported that e-Gram was functioning well. The large majority of users (89%) rated e-Gram services much more highly than previous manual services, while 94% considered it "very easy" (99% "easy" or "very easy") to avail themselves of e-Gram services.

- Almost all users (97%) felt that functionaries (*talatis* and VCEs) were helpful. Around 90% of users felt that there was no discrimination between users according to socio-economic profile.
- A very high proportion of users (86%) rated the value of e-Gram to be “very high” (97% “high” or “very high”). The principal reason for this high rating was time-saving (63%), with the large majority of users (92%) requiring only one visit to the e-Gram service centre to complete their business. Where multiple visits were required, this was usually because the person responsible was not available.
- The large majority of users (75%) considered the cost of e-Gram services (Rupees 10 per certificate) to be “very high”; 92% considered them “high” or “very high”. Almost half of users (44%) thought that local officials were responsible for the level of fees, rather than e-Gram’s overall management (only 21% identified the government as being responsible) – and may therefore have identified only local costs as relevant. Just under 20% said that they had experienced having to pay more than the official rate for services.

There were some variations in the perception of e-Gram’s effectiveness between officials responsible for programme delivery at local level and users/non-users. Among the principal differences identified from interviews and surveys with *mamlatdars* and *talatis* (“officials”) and with users and non-users (“citizens”) were the following:

- All groups interviewed agreed that men were more likely to access e-Gram services than women. This probably does not reflect on access to e-Gram itself but on established patterns of behaviour in which men rather than women are assigned responsibility for activities such as certification which are now available through e-Gram.
- Officials (*mamlatdars* and *talatis*) gained their knowledge of e-Gram, not surprisingly, through official channels, while citizens tended to learn about them informally, through word-of-mouth *etc.* as well as through formal information structures. This applied to the additional facilities offered through e-Gram as well as to mainstream e-Gram services.
- Officials had participated in pre-launch meetings at local level, and had differences of opinion amongst themselves about issues such as local delivery and the selection of services.
- Officials tended to rate the cost of service as reasonable, while citizens tended to consider it high. It should be noted that *mamlatdars* and *talatis* had, on average, higher socio-economic profiles than users and non-users, and so would be likely to have different expectations of cost. They were also more familiar with the upstream costs of e-Gram service delivery.
- *Mamlatdars* interviewed felt that there were a number of different problems with service delivery at local level. *Talati* interviewed identified connectivity as the main, even only major problem. Users, on the other hand, identified the absence of responsible personnel (*i.e.* officials or VCEs) as their main difficulty with the service.
- *Talatis* interviewed had a higher perception of service quality than *mamlatdars*.
- Both groups of officials regarded themselves as having high ability to provide feedback on e-Gram services, whereas users regarded the ability of the officials to provide this as low.

Interviews with users and non-users also explored arrangements for community participation at local level, beginning with participation in advance of project delivery. Retrospective perceptions of participation are difficult to measure for a number of reasons – interviewees are being asked to remember past rather than current experiences; meetings may have had a number of purposes, not just that which is being considered (in this case, e-Gram); the distinction between formal and informal opportunities to participate is also often unclear.

In this particular survey, only 20% of users recalled formal meetings being held in their village before the start of e-Gram, the majority of these identifying only one such meeting (while others thought there had been two or more). About half of those who recalled formal meetings thought that official records had been made of them, and a third remembered these records being shared with them.

Most users (77%), however, recalled informal meetings being held before the start of e-Gram in their villages, and three-quarters of those recalled more than one such meeting. The large majority of those recalling these meetings (83%) said that most of those attending were men. However, very few of those attending (3%) felt that the meetings were mostly composed of rich or influential people, with around 30% saying that those attending were mostly literate, of high caste or older. Majorities of 70% or higher, in other words, observed these informal meetings as having been generally inclusive of male socio-economic categories, but not of women.

About 18% of interviewed users said that they had been involved in formal or informal meetings to discuss the selection of services and the design of user interfaces in their localities. The remainder were unaware that such meetings had been held – perhaps because these meetings were not widely publicised or because only limited effort had been made to secure a large attendance.

Questions were also asked about users' ability to influence e-Gram services today. A large majority of users (83%) felt that it was "easy" to provide feedback about e-Gram (whereas 13% said they found this "very difficult"), though the figures for non-users were less positive (48% and 38% respectively). Users predominantly made their views known by verbal discussion with officials rather than formal mechanisms – about two-thirds identified the head of the *gram panchayat* as the most influential official concerned. Only 6% of users had participated in any processes to improve e-Gram or their participation in it (such as training).

The e-Gram programme includes a complaints review mechanism, which enables citizens to make complaints in writing or by telephone to relevant officials at various levels. However, 92% of users in this study were unaware of its existence.

The complaints and suggestions which had been made had arisen during the *gram sabha* meeting. Although villagers could submit complaints in writing to the *talati* or call and register complaints by phone, these channels of formal communication were neither known nor used by the villagers. However, villagers did raise problems informally with *talatis*.

These findings are generally positive about the value of e-Gram, compared with previous manual service delivery, and about the inclusiveness of usage of e-Gram services. Some of the problems identified by users, however – notably the cost of services – do not appear to be adequately recognised by the officials involved. Although there was some community participation prior to implementation, it is unclear from these findings how influential that participation was in practice. Participation in improvement and evaluation now that the programme is underway appears weak.

#### **Findings regarding the provisional methodology**

The principal purpose of the pilot study was to assess whether the proposed methodology provides a viable basis for assessing experience, particularly experience of community

participation, in e-government initiatives aimed at improving service delivery in India and elsewhere. In particular, it sought to elucidate the following research questions:

1. Does the methodology achieve insight into community participation and into the relationship between community participation and e-government success/failure?
2. Is it practicable (in terms of stakeholder engagement and financial viability)?
3. Does it require significant adjustment to meet the circumstances of individual projects and/or locations? – and, if so, in what ways?
4. How can it be improved for further testing and implementation?

One general issue raised when observing the methodology in practice concerns assumptions that may be made about the extent to which community participation had taken place during design and early implementation. In the case of e-Gram, some benchmark studies of potential users' needs were undertaken as part of the design phase and there was also some consultation with potential users. However, the extent of participation was low, and participation was far from pervasive in the design and implementation work. The programme also seems to lack substantive mechanisms for user feedback (certainly end-user feedback): although there is a complaint reporting mechanism, this seems to be little used and is, in any case, only one part of an effective feedback system.

In itself, this illustrates the scale of the challenge posed by community participation. For present purposes, however, it is more important to note that this lack of widespread or substantive participation in initiatives is likely to prove common. Indeed, anecdotal accounts suggest that e-Gram has done more in this respect than many e-government programmes have done. It would, therefore, be a mistake to assume that measurable participation is likely to have taken place in the majority of examples that could be assessed. This has implications, at an individual project level, for questionnaire design – including the need to focus attention on perceptions of change and perceptions of the extent to which services meet user “wants” and “needs”, as well as on the presence or absence of actual participation practices as such.

The communities considered seem to have had little expectation that they could add value to the project, apparently because they felt they had little knowledge of either technology or how improved services could be provided. Those interviewees that did have views on this were not sure what mechanisms were available through which they could contribute views or if their concerns would be addressed in the design and delivery of programmes. Such perceptions could influence their assessment of project success/failure. They should be taken into account when undertaking assessments of community participation.

A second general conclusion from the study, which confirms earlier assumptions (see Section 2) is that it is difficult – and, in practice, unhelpful – to assess community participation in an e-government initiative without also looking at the outcomes of that initiative itself. Indeed, a key question that any analysis of this kind should be asking is: what impact has community participation had on outcomes?

This question is relevant in all three objective areas for participation – where instrumental and managerial objectives are concerned, in terms of the quality of outcomes achieved for end-users and for programme managers; where normative objectives are concerned, in terms of impacts on empowerment and wider social inclusiveness.

It is, of course, not easy to establish causal links between participation and outcome levels, either at the individual programme level or in multi-experience comparisons. However, as discussed in sections 1 and 2 above, there are indications of how community participation may influence these outcomes, and the research team believes that finding out more about these should be a central part of any assessment that Panos undertakes in this area. As a result, any assessment needs to include *both* an assessment of community participation *and* an overall assessment of the success or failure of the initiative concerned, at least as viewed by targeted communities.

The following paragraphs address the four questions raised above.

1. *Does the methodology achieve insight into community participation and into the relationship between community participation and e-government success/failure?*

The research team feels that the methodology does offer significant insight into various aspects of community participation. In particular, it covers a variety of stakeholders and locations, enabling it to capture the specific attributes of different types of location, and different project phases. The following points elaborate on this conclusion.

- The methodology was designed to cover and succeeds in covering a wide range of stakeholders, including both users and non-users of services, and different levels of stakeholder concerned with service provision (in this case, e-Gram programme managers, local officials, VCEs, *etc.*).
- Although the relatively small size of the pilot project allows only limited disaggregation, the methodology allows extensive sub-sampling according to factors such as gender, caste and indicators of socio-economic status. This makes it sensitive to local context and to circumstances (such as the location of services where they are not readily accessible to women or those of certain castes).
- The methodology included officials from district, sub-district and village levels. Preliminary meetings held with these officials before questionnaire design helped to incorporate differences in perspectives at different levels. It also proved suitable for larger and smaller communities. The questionnaire that was used therefore provides a useful basis – with modifications indicated below – for other contexts and experiences.
- The methodology also covered most project phases, including conception, design, implementation and review. Specific issues covered through one or other component included selection of services, design of user interfaces, design and delivery of training programmes, implementation, design of feedback and review and complaint redress mechanisms, the availability of hardware and maintenance and software problems.

In terms of the four layers of analysis suggested in Section 2, therefore, the methodology seems adept at investigating different timing, levels and depths of community participation, although purpose – and national/state level participation – may need to be addressed through more substantive senior-level interviews.

Some additional points should be made about the perceptions of users ('target beneficiaries', in this context) about their own involvement. The literature in this area is often inconclusive about what exactly constitutes "community participation", and about the relationship between participation which is concentrated at the planning or institutional level and that which is genuinely community-initiated. What is viewed as participation by different actors is, in fact,

often very different, and differing expectations of it can lead to different perceptions of its success or failure and that of the e-government initiatives of which it forms a part.

For example, most of the villagers who participated in focus group discussions for this project saw very little role for themselves in choosing services that they wanted to be implemented in e-Gram. For them, participation was essentially about using services, rather than designing them. Partly this was because they did not understand the potential of the technology involved or the workings of government bureaucracy.

The study therefore considered both formal and informal participation. It also sought to categorise and assess levels of formal participation by classifying whether respondents had taken part as members of village-level committees that were formed at village level or members of formal committees that were constituted as a part of government-led project design. This inclusion of both formal and informal participation – some of which may not be recognised by participants as “participation” because of its informality – is likely to be significant, too, in other contexts and experiences.

A more nuanced approach to evaluating participation evolved as the field study progressed. From focus group discussions and detailed interviews, it became clear that participation in different phases of implementation needed to be assessed at different levels. For example, participation in an informal gathering in the awareness-raising phase, at the very start of the project cycle, could raise usage levels and thus lead to greater project success, whereas in the design phase more formal participation could have higher value, not least in ensuring that project implementation stayed on schedule. This, too, is a useful lesson for other contexts.

## *2. Is the methodology practicable (in terms of stakeholder engagement and financial viability)?*

The level of stakeholder engagement which can be anticipated will depend on a number of factors, including different stakeholders’ perceptions of the value of the programme concerned and of the assessment which is being undertaken. Officials who are sceptical of the value of community participation and users who are cynical about their experience of it are less likely to engage positively with research of this kind than those whose views and experiences are more positive.

Perceptions of success and failure are also likely to be relevant. Since e-Gram is viewed as a success by most stakeholders (both citizens and officials), they were quite receptive to the study. Where outcomes are not so successful, those involved may well be less receptive, and this may inhibit access to and input from the necessary variety of stakeholders. The risk of this will be particularly high if officials feel threatened by something that they feel may be an instrument for blame. It will be important for researchers to put time and effort into creating the right climate for moving forward with stakeholders in such circumstances – not least reassuring them that the aim of the project is to facilitate better implementation in the future not to allocate responsibility for failings from the past.

The time period for research needs to be longer than was originally envisaged for this project, and to include sufficient flexibility to meet the vagaries of administrative practice (good or bad). For example, the e-Gram study had to reschedule a number of important meetings, sometimes with cascading impact, because of the announcement of India’s general election (being held in April/May 2009). E-Gram is a showcase project for the present state

government and the election announcement meant that officials had less time available for engaging with a study that was for them of marginal importance.

The methodology proposed in this report is quite extensive, and so requires a significant level of funding. India is a relatively cheap environment in which to undertake market research surveys and so costs are likely to be higher in other countries. There is also a tendency in research of this kind to underestimate the time required for analysis: more time would have been valuable in the pilot study.

It is assumed that work of this kind will be undertaken with funding specifically obtained for the purpose. There is always pressure in such circumstances, from donors and within agencies, to keep costs down in order to increase the likelihood of funding being raised. This is clearly important, but needs to be balanced against the requirements of research quality. In the context of this particular methodology, the main choices that need to be made are those:

- about the number of research elements to be included in a study;
- and about the scale required to make individual research elements statistically or qualitatively valid.

The elements proposed and some comments on these points are included in section 4 below. The research team would emphasise the need to maintain:

- a balance between quantitative and qualitative research approaches, which engage different levels of stakeholders and diversity of experience;
- and inclusion of sufficient numbers of experiences to ensure that experiences assessed are likely to be representative and to provide statistically significant data.

3. *Does the methodology require significant adjustment to meet the circumstances of individual projects and/or locations? – and, if so, in what ways?*

It is a principal objective of the methodology being developed here that it should enable comparative studies to be undertaken, and so a general assessment to be made of the value of community participation in e-government practice. The methodology needs, therefore, to be robust across diverse communities, countries and (within reason) levels of development.

Overall, for reasons discussed above, the research team feels that the methodology tested in Gujarat and summarised in Section 4, has strong general validity and can be used as the basis for assessing experience with community participation in e-government in diverse contexts, within India and in other developing countries. It is less appropriate for industrial countries or countries with service delivery histories which differ from those widely found in developing country contexts. In particular, it should be possible to build on the research questions set out in Section 4 and on the questionnaires used for the pilot study to establish a framework for investigative tools which is sufficiently common to allow strong comparisons to be drawn across experiences.

Nevertheless, it would be hard to overestimate the importance of context in assessing the experiences of communities, which differ within as well as between e-government programmes and countries. Different questions need to be asked in different contexts because of the different social structures, needs and priorities that exist within them; because of differences in relationships between citizens and the state; because individuals in different

communities are likely to respond differently to research of this kind; and because differences in the achievements of e-government initiatives are likely to affect willingness to participate (see above). Questions may even need to be asked differently in order to elicit comparable responses. Preliminary meetings with officials and exploratory focus group discussions in selected communities are likely to be crucial in determining the extent to which standard methodology needs adaptation for specific circumstances.

It follows from the above that a thorough understanding of the context of each experience will form an important part of the analytical framework for any comparative study.

#### 4. *How can the methodology be improved for further testing and implementation?*

A number of points have been made earlier in this Section about the limitations of the methodology tested in Gujarat and about ways in which it might be improved elsewhere. Only the key points among these are summarised here.

The principal limitation of the pilot study was, of course, its scale. More substantive analysis of other experiences – and, indeed, of e-Gram itself – requires increased scale. In particular, assessment of programmes of the size of e-Gram, which are implemented in diverse communities, needs to be based on more examples than were possible in the pilot study. This includes more example communities (of more diverse types) and larger samples within communities (those in the pilot study were on the margins of significance and too small to allow extensive disaggregation).

The pilot study demonstrated clearly that some assessment of the success or failure of e-government initiatives in delivering services, and of their wider impact, needs to be made alongside assessment of community participation. This will help to identify what, if any, causal links can be established between participation and programme outcomes.

More attention than was possible in the pilot study probably needs to be paid to the linkages between different levels of design and implementation, and of community participation at these levels – for example, in the case of e-Gram, between the Government of India's Common Service Center programme, the state-wide design and implementation of e-Gram, and variations in its implementation at district, *taluka* and village levels.

More recognition needs to be given to the relatively low level of participation that is actually likely to have occurred or be taking place in most e-government initiatives. This means that it is important to ensure that research resources are not wasted asking questions which are not relevant to a particular experience because the level of participation has been too low.

For reasons discussed above, it is also important to consider informal and non-official as well as formal and official community engagement. A more refined framework needs to be developed for evaluating these different levels and forms of participation.

The qualitative components of the pilot study demonstrated that more attention needs to be paid to the outcomes of participation experiences. It is not sufficient, for example, to know whether a participation event occurred; it is also important to understand the nature of that event, for example whether it was dominated from the platform or the community; to note the inputs that were made by the meeting, particularly those that were strongly supported; and to assess what impact the meeting had in changing the design and implementation plans of



programme/project managers. This information can only be drawn from qualitative research: a point which reinforces the importance in this context of combining quantitative and qualitative methods.

### **Summary**

The methodology tested in Gujarat proved to be relatively successful at providing evidence about the extent of community participation and its role within the e-Gram programme as a whole. It provides a useful starting point for work in other contexts. The best immediate way of building on it, however, may be to undertake a larger-scale and more substantive study of the e-Gram experience itself. This could be done either before or alongside exploration of other experiences in India; and then extended to other developing countries.

The extent to which participation has been taking place in different contexts is at present uncertain, and may prove a limiting factor in future work. It is possible that widespread lack of substantive participation will mean that investigation should focus on comparison between interventions which have experienced different levels and types of community participation, where such differences can be readily identified before assessment. This would suggest a purposive selection of programmes for assessment based on the presence and style of community participation than to assess projects which are selected randomly. A literature review of evaluations and other programme documentation, plus input from Panos institutes worldwide, should help to identify suitable programmes for assessment.

The methodology also proved to be practicable in terms of time and finance. Although an attenuated version of the provisional methodology – at least in terms of numbers of interviewees – the mix of methodologies and forms of evidence within the methodology significantly enriched findings and cross-referencing between them made it easier to understand the implications of findings from one element of the approach (from senior management interviews, for example, or from user questionnaires). This multiple methodology approach should be retained.

These conclusions have been used by the research team to develop the proposed methodology along the lines set out in Section 4.

## **SECTION 4 : CONCLUSION AND PROPOSED METHODOLOGY**

This final section of the report sets out a proposed methodology for future assessment of community participation in e-government initiatives. This proposed methodology has been developed from the provisional methodology tested in Gujarat, in the light of the test experience reported above. It is proposed as a methodological basis for a larger programme of assessments of e-government experience, initially in India, which Panos believes will help to develop greater understanding of the relationship between community participation and the achievement of e-government objectives, particularly social, welfare and other gains for community members including those in marginalised groups; and, through this greater understanding, lead to the wider adoption of participatory processes and improvements in e-government outcomes.

### **Overall context**

Section 2 of this report suggested four areas of investigation of community participation which need to be incorporated in any analysis. These are:

- the **purpose** of community participation;
- the **timing** of participation events (*i.e.* different stages in the project cycle);
- the **level** at which participation has occurred;
- and the **depth** of participatory experience (from “information” to “empowerment”).

The methodological approach should be capable of facilitating assessment in all four of these areas.

### **Research questions**

The proposed methodology is intended to address four research questions concerned with community participation in e-government. These are as follows:

1. To what extent has community participation been incorporated in the design, implementation, management and evaluation of a) e-government initiatives in general and b) specific e-government initiatives?
2. To what extent has such community participation influenced the actual design, implementation, management and evaluation of such programmes/projects?
3. To what extent has this affected the outcomes of such programmes/projects?
4. What forms and styles of community participation have been used and have proved most effective in influencing implementation and outcomes?

### **Principles**

Within this context, eight core principles underpin the approach of the proposed methodology, as follows:

1. The evidence from e-Gram and from wider studies suggests that, in most cases, relatively little community participation will have taken place in the design, implementation and management of e-government initiatives. It is important that the proposed methodology recognises this and enables useful data to be obtained, including data about the potential value of (past and future) community participation, from assessments of initiative which have since little community involvement. At the same time, it should also enable more comprehensive data to be obtained where community involvement has been more extensive, and also enable comparison between initiatives with these varied levels of participation.
2. As noted earlier in this report, assessment of community participation cannot be divorced from assessment of the outcomes experienced by programme/project managers and target beneficiaries. While community participation does not necessarily lead to better outcomes – a project with high levels of community participation can nevertheless fail to achieve its objectives or to secure end-user confidence – it is necessary to have some understanding of the overall achievements of an initiative (against objectives and more generally) in order to place its community participation experience in context. The methodology used must therefore look at “real outcomes” as well as perceptions of what has taken place. (It should also be noted that good benchmark data are not usually likely to be available.)

3. Community participation cannot be judged on the basis of perceptions within the community alone. It is important to include, alongside these, the perspectives of other stakeholders – in particular programme managers at senior level, and service delivery personnel at local level. Within communities, the experience of different social and economic groups – including gender, occupational, income and (in India) caste and religious groups – needs to be included in assessment. The views of community opinion-leaders and/or information intermediaries also add significant value.
4. Diversity of experience is important. At least three locations need to be reviewed in order to establish differences in experience of a common programme at a local delivery level – in terms both of outcomes and of participation itself. Questionnaire and interview samples need to be sufficiently large to allow for disaggregation and comparison of perspectives between different social groups within communities. It is especially important to include the experience of non-users and questions within surveys which seek to identify reasons for non-use. Comparison between communities which have experienced the e-government initiative concerned and similar communities which have not experienced it should also add to the quality of findings, as will comparison between the experience of users before and after implementation.
5. The distinction between evaluation and impact assessment should be borne in mind. In essence, evaluation is concerned with the extent to which an initiative has achieved the objectives set within its remit, while impact assessment is concerned with any results which may be attributed to that initiative, whether intended or unintended, whether affecting target beneficiaries or third parties. Impact assessment also usually has a longer timeframe than evaluation.<sup>19</sup> This distinction is important both in assessing the outcomes of an e-government initiative and in assessing community participation. In particular, it is important to consider not just what community engagement has taken place, but whether that community engagement made any difference to the way in which an initiative was designed, implemented and managed, and to the outcomes which resulted from any changes that were made to design, implementation or management following community participation. As in all impact assessment, it is important here to consider “negative” and unexpected impacts as well as those anticipated and thought “positive”, and to consider impacts on third parties as well as target beneficiaries.
6. The methodology should enable assessment of the different types of e-government initiative that affect end-users, of the different tiers of e-government provision, and of the different stages of e-government implementation. These are referenced elsewhere in this report and can be summarised as follows:

*Types of e-government initiative:*

- Service delivery
- Information provision
- Participation in decision-making (empowerment)

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<sup>19</sup> For more on this distinction, see David Souter, ‘ICD and Impact Assessment’ in *BCO [Building Communication Opportunities] Impact Assessment: the final report*, at [http://www.bcoalliance.org/system/files/BCO\\_FinalReport.pdf](http://www.bcoalliance.org/system/files/BCO_FinalReport.pdf).

*Tiers of e-government provision (see also the table, derived from the United Nations, on page 8):*

Information  
Consultation  
Involvement  
Collaboration  
Empowerment

*Stages of e-government implementation:*

Identification of problem  
Intervention design  
Implementation  
Management  
Evaluation and impact assessment  
Feedback and modification for continued implementation

7. The methodology should be capable of distinguishing between participation events and participation outcomes, and relating these to each other. The fact that a participation activity has taken place does not in itself make that participation meaningful – for example, if no changes take place as a result of strongly-held community views. The methodology must explore the extent to which participation is cosmetic or substantive, and the different perceptions of this held by different stakeholders.
8. Finally, it is clear from the above that no single methodology will be sufficient to establish the evidence required about community participation. Assessment of this needs to draw, substantially, on the views of service users and target beneficiaries, including non-users; but also needs to draw on the perceptions of other stakeholders, especially the providers of e-government services and the providers of other services which may be affected by e-government services. It also needs to draw on quantitative evidence – of the use of e-government services themselves, and of the use of other services where e-government initiatives are designed to promote that use (for example, in the case of e-Gram, the use of certificates for accessing agricultural or welfare services provided by other government departments).

### **Scheduling**

Community experience of an e-government initiative can, clearly, vary over time. Problems with initial roll-out may discourage early participation by potential users, but in time be overcome, leading to much higher satisfaction rates and outcomes. Initial enthusiasm and success can, likewise, lead to disillusion and disuse. Experience of participation, too, can vary over time: in other contexts, there is much experience of high levels of participation in a design phase proving difficult to sustain through implementation, management and evaluation.

There is a case, therefore, for longitudinal analysis, in which experience is tested at several points in time as an initiative is implemented. This might be considered ideal. However, in practice, resources are unlikely to be available for longitudinal studies, and a single moment of assessment will have to be selected. Where this is so, this moment should be a significant

time after the start of implementation, when the service is no longer novel but has reached maturity. In order to relate participation to programme outcomes, it should be possible to make at least an initial quantitative (statistics) and qualitative (perceptions) assessment of programme outcomes compared with earlier (pre-e) experience and with programme targets. However, it will be important that interviewees still retain sufficient memory of process before as well as during implementation, in order to comment sufficiently on their experience of participation itself. It may also be helpful if this assessment of participation takes place around the time that programme managers are considering how and when to evaluate the initiative itself.

### **Methodological overview**

As noted above, assessment of community participation needs to draw on a variety of different methodologies, including some assessment of experience of the e-government initiative in general as well as of participation itself. It will be important in particular to draw on the experience not just of community members, but also of programme managers and others responsible for implementation and service delivery.

At the same time, the costs of assessment need to be kept down, in order to enable assessment of a variety of initiatives. The following paragraphs therefore review the framework for assessments set out in the provisional methodology in section 2 above, in the light of the e-Gram pilot study and likely resource availability.

- A) *Review of overall programme documentation, including reports of any consultation processes, community fora etc. at national and local levels, monitoring and evaluation data and reports.*

It will be particularly important here to assess the quality of market research and benchmarking undertaken before programme design; and the extent to which changes are reported as a result of research findings and of community involvement. In some cases, it may be worth comparing experience in e-government initiatives with that in other areas of governance, for example the development of poverty reduction strategies (where participation is, at least notionally, expected to take place).

- B) *Semi-structured interviews with programme managers at different levels.*

This should include those responsible for overall programme strategy and managers at different relevant tiers in the implementation hierarchy (*e.g.* at national level and at lower tier administrative divisions).

- C) *Selection of up to five (and a minimum of three) locations within the initiative for assessment of local experience.*

These should be selected to represent areas of significant diversity, reflecting the diversity within the delivery area of the e-government programme concerned. Relevant diversity is likely to include geography (different districts), ethnic diversity, types of economic production, levels of income and education. The aim of including this diversity is to minimise the risk that areas selected will be outliers within general experience of the programme and to identify experiences which are highly robust because they are shared across diversities.

D) *Assessment of local usage data (if available).*

Where data are not available, it may be possible to include some data collection within questionnaires and other sampling tools.

E) *Questionnaire-based structured interviews with local service users and non-users concerning their experience.*

Questionnaires should be designed on the basis of the research questions below, preferably to a common standard for this and future assessments (e.g. re question type and social categories) in order to facilitate comparison between initiatives. The following parameters are suggested:

- a) 150 (to 250 maximum) interviews per location;
- b) 80% of interviewees = service users; 20% = non-users;
- c) inclusion of diverse social categories (filled bullets in “social categories” list above), to allow disaggregation;
- d) 15 to 20 minutes maximum per interview;
- e) use of both quantitative and qualitative (quotation) questions.

F) *Semi-structured interviews with local service delivery personnel.*

G) *Focus groups in survey communities.*

Where possible, these should be undertaken with the following three groups:

- a) service delivery personnel
- b) local opinion leaders / information intermediaries;
- c) service users.

H) *Analysis of findings.*

This should include

- a) feedback mechanisms, to test validity, with stakeholders, including groups of service users; and
- b) a review meeting with senior managers and other stakeholders.

### **Detailed research questions**

The final two parts of this section of the report deal in greater depth with two aspects of the proposed methodology – the research questions which should be addressed through questionnaires and other investigative tools, and the disaggregation of data required in order to understand the ways in which different social groups are affected by, and perceive, the value of e-government initiatives and their participation in them.

Core research questions for future assessments have been suggested earlier, specifically:

1. To what extent has community participation been incorporated in the design, implementation, management and evaluation of a) e-government initiatives in general and b) specific e-government initiatives?

2. To what extent has such community participation influenced the actual design, implementation, management and evaluation of such programmes/projects?
3. To what extent has this affected the outcomes of such programmes/projects?
4. What forms and styles of community participation have been used and have proved most effective in influencing implementation and outcomes?

The following more detailed research questions are intended to provide a basis for the development of appropriate questionnaires, interview questions and other investigative tools. These are concerned both with the impact of the initiative itself and with the experience of community participation in design, implementation and evaluation. (It is important that research personnel are clear about the distinction between these two aspects of assessment.) Although formulated here in terms of service delivery, these questions can be readily adapted to suit e-government initiatives which are concerned with public information or empowerment.

Examples of the translation of these research questions into questionnaires are included in a separate report by Professor Jain of the pilot assessment of e-Gram in Gujarat.

The following more detailed research questions summarise what it would be useful to know as part of an assessment of community participation in e-government. They fall into five main categories.

*1. Programme objectives and performance:*

- a) What are the objectives of the initiative?
- b) Why were these particular services selected for e-government delivery?
- c) Is the initiative designed to be centralised or decentralised? What is the technical and managerial architecture? How open is it to local variation?
- d) Were services piloted before full implementation? And with what community input?
- e) What monitoring and evaluation processes are in place?
- f) What outcomes can be measured to date, to assess whether these objectives are being met and what other impacts may have resulted?
- g) What perceptions do end-users (and other stakeholders) have of outcomes to date?
- h) How equitable are access and usage in practice?

*2. Community participation: general questions*

- a) What approach to and degree of community participation (in intent and practice) has there been (at programme and local levels) in:
  - i. the identification of problems to be addressed by the initiative;
  - ii. the selection of services and/or information resources to be made available;
  - iii. the design of service delivery mechanisms and content;
  - iv. the implementation of the services;
  - v. the management of the services;
  - vi. and the monitoring and evaluation of the services.
- b) How inclusive is this participation (by social categories – see next section of report)?
- l) What mechanisms provide for the incorporation of community participation in programme management?

*3. Community participation: programme level*

- a) What consideration was given to community participation in overall programme design?
- b) What consultation processes and other community participation preceded programme implementation?
- c) How were these processes recorded and reported?
- d) What view do programme managers take of the value of community participation (stated perception and practice)?
- e) What changes took place at selection, design, implementation, management and evaluation stages as a result of input from community participation?
- f) What involvement do end-users (and other stakeholders) have in programme management and evaluation?
- g) What market research concerning user perceptions has been undertaken by programme management?

*4. Community participation: local level*

- a) What consideration was given to local consultation/participation and/or to varying overall programme design to meet local circumstances?
- b) What local consultation/participation took place?
- c) How were these processes recorded and reported?
- d) What information was provided to users about the initiative before it began to provide services?
- e) How do new services and delivery mechanisms integrate with those to which users were previously accustomed?
- f) What view do local delivery personnel take of the value of community participation?
- g) What changes took place at selection, design, implementation, management and evaluation stages as a result of input from community participation?
- h) What involvement do end-users (and other stakeholders) have in local implementation?
- i) What changes have been made in local delivery as a result of user input?

*5. User and information intermediary perceptions*

- a) What view do end-users (in different social categories – see next section of report) have of the service as a whole? Has the e-government initiative improved services or not (or made them worse)? In what respects do they think it has delivered / failed to deliver improvements?
- b) What are their own usage patterns for the services concerned?
- c) What view do they take of the degree of community participation they have experienced?
- d) Do they think there are significant aspects of the service which could have been delivered more effectively (and/or aspects which they think have been particularly effective)? Do they trust the e-government delivery mode more or less than previous delivery mechanism?
- e) Would they like to have been more (or less) involved in programme design, management and evaluation, and if so how?



- f) What view do non-users have of the service? Why do they not make use of it? What would encourage them to make use of it (if it is relevant to their circumstances or needs)?
- g) What view do information intermediaries take of the service as a whole, and of community participation in it?
- h) What criteria/indicators do users and intermediaries think effectively measure the value of the service?
- i) What mechanisms are there for user feedback? Are these a) adequate and b) used?

**Disaggregation of findings: a brief note**

Where useful, findings from survey research should be disaggregated into categories. For present purposes, the following categories are suggested.

*Social categories*

The following disaggregated social categories are suggested:

- elected officials
- technology agency (in the case of e-gram, Airtel)
- opinion leaders and information intermediaries
- small/micro businesses
  
- service users / non-users
  
- men / women
- age group (three cohorts)
- degree of literacy
- degree of education
- income level
- occupational group
- scheduled caste/tribe status

