4 Citizen Engagement in Practice

The fast growing and increasingly widespread interest and global activity in citizen/stakeholder participation and engagement have spawned numerous experiments, pilots, initiatives and projects for a variety of purposes.

Despite the plethora of initiatives, however, documenting, reporting and evaluation of the varied exercises has not been systematic. Referring to pilot exercises in e-participation in countries using the Government Online International Network (GOL), Macintosh (2004) observed: "*although some governments and research centres have already undertaken a number of surveys in this area there is no standard way to describe the approach and to detail the outcomes*."

Furthermore, while some initiatives have been evaluated by independent reviewers, most have not, and material which is in the public domain has often been produced by members of the project team, often the project champion. This sometimes makes it difficult to ascertain objectively the success of the exercises reported. There is variability in the amount of detail about what has been done, with whom, how, and to what effect. Yet to inform and guide effective citizen engagement initiatives worldwide requires the sharing of exactly this type of knowledge and good practice. It is especially important that governments can benefit fully from their investment in the many exploratory and innovative exercises in participation they have instigated. For this to happen detailed and clear analysis of the varied initiatives is required. We seek here to provide an enriched framework for such analysis.

4.1 Characteristics of Citizen Engagement Initiatives

In this book we have necessarily only been able to include a small sample of the numerous and highly diverse citizen engagement initiatives which are taking place across the globe. Given the relative lack of systematic reporting and analysis, we have selected cases which offer what we believe to be valuable insights into the practice and outcomes of citizen engagement. We have attempted to show the global extent of initiatives by taking

examples from 10 different countries, and by choosing examples which are illustrative of the kinds of activities which are being undertaken. Regarding the many initiatives that aim to develop low cost, sustainable ICT (viz. "*the $100 laptop*" – Negroponte 2005) for the benefit of disadvantaged communities, we have included two examples (Nepal Wireless and Jhai Foundation). There are of course many other examples, but the aim here is to highlight citizen engagement/participation aspects. For this reason we have not included case studies of telecentres. Although these are a common approach to providing ICT at the community level, evaluative reports suggest that in general these appear to be introduced without taking due account of the needs of community members or aspects of the local context.

We have developed a framework to present the case material in a way which enables comparisons to be made and conclusions to be drawn. There are many ways of characterizing and classifying citizen engagement. One classification which has been widely used is the three stage model of levels of involvement (OECD 2001), which we have already outlined in Chapter 1. Another way in which citizen engagement has been classified in the literature is by the role of the technology. Macintosh et al. (2004), describe three different ways in which technology can support participation. The first is in an e-enabling role where the technology provides support for those who do not typically access the Internet. This means a wider audience can be reached (using a range of technologies to cater for the diverse technical and communicative skills of citizens). It also serves to provide participants with relevant and useful information in an accessible format. The second is e-engaging where a wider audience can be consulted to allow for deeper contributions and to support deliberative debate on policy issues. The third is e-empowering in which technology supports active participation and facilitates bottom-up generation of ideas to influence agendas. E-enabling and e-engaging provide for "*user access to information and reaction to government led initiatives*." E-empowerment on the other hand sees citizens emerging as producers, rather than just consumers of policy: "*here there is recognition that there is a need to allow citizens to influence and participate in policy formulation*".

For our purposes, these two descriptors – level of involvement and use of technology - are useful but not central to our theme. Since the focus of this book is on citizen engagement, the classification by level of engagement was used to discard case studies where there was little or no reported engagement. Regarding the role of technology, the processes and mechanisms of participation are clearly important, but our interest is not so much in the way in which technology has been used as part of the engagement,

rather in whether the engagement has had some influence on shaping either the technology, or the sociotechnical context.

Thus, the most important criterion to apply, given the theme of this book is the **purpose or focus** of the engagement process. By far the majority of published examples of citizen engagement initiatives relate to engagement in aspects of public planning or policy making. Some of the most inspiring examples demonstrate the empowerment of citizens to shape their own futures, to become "*makers and shapers*" rather than "*users and choosers*" (Cornwall and Gaventa (2000) cited in Lister 2004). There are also a number of examples where citizens have been involved in shaping some aspect or features of a technical system – typically, in creating or influencing a web site or web pages. Such examples are much narrower in scope, and are therefore likely to have limited impact or potential impact on citizens' lives and quality of life than, by contrast, initiatives which engage citizens in shaping their communities or developing national policies. Rather harder to find have been well-documented examples which combine both types of engagement, i.e. where citizens have been actively engaged in the creation of sociotechnical systems.

The stages in the policy making process and the ICT design process are actually very similar (Table 4.1). For the purposes of making comparisons across case studies in both domains we have therefore produced a combined model, as shown in Figure 4.1.

Table 4.1. Comparison of stages in policy making and ICT design process

Policy Making (OECD 2003)	ICT Design
Agenda setting	Concept specification
Analysis	Analysis of requirements
Formulation	Design & development of the system
Implementation	Implementation
Evaluation and monitoring	Evaluation and monitoring

Citizen engagement activities also vary according to a number of other dimensions. The issue of who is engaged is critical to understanding the nature of the process and in judging the effectiveness of the outcomes: what kinds of citizens were involved, how many, and how were they selected? Then there is the issue of duration – some initiatives are short term, lasting a few weeks or months; others are longer term initiatives which may last for several years. Regarding outputs and outcomes, the focus in published reports tends to be on notable successes whilst scant attention is generally paid to problems or shortcomings in the engagement process. Finally an important parameter relates to evaluation – has this been carried

out, and if so, by whom? In particular are there defined criteria for assessing success and impact?

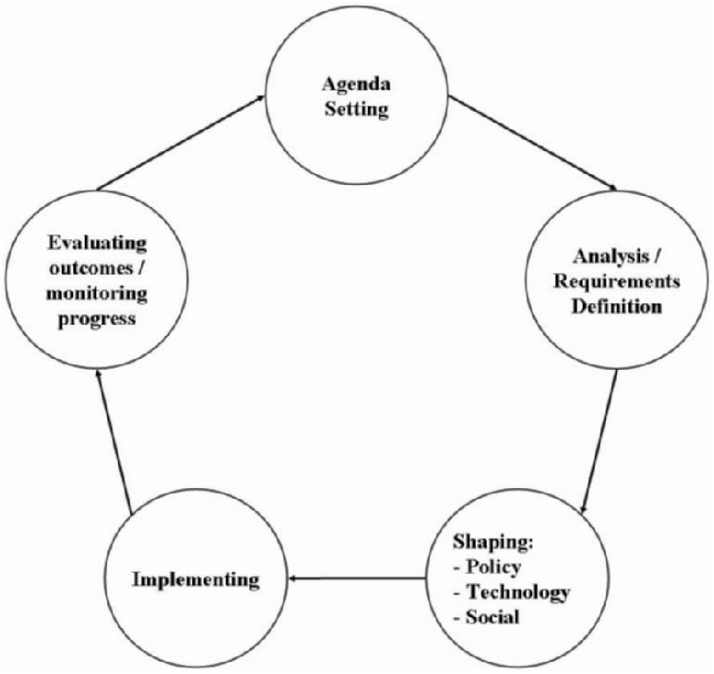

Fig. 4.1. Stages in policy/technology development.

4.2 A Framework for Analysis of Citizen Engagement Initiatives

The above factors have been used to create a framework for the description and analysis of the citizen engagement initiatives which we have selected for examination. Each case includes the following information, where it was available:

- the level of engagement (i.e. active participation);
- the objective of the engagement;
- the stage of decision-making in policy/technology development;
- who was engaged (how many citizens, from where and by whom);
- the mechanisms of engagement (including the role of technology);
- the duration of the initiative;
- the key outcomes;
- how the initiative was evaluated and by whom.

A total of 20 cases are examined in this chapter and chapter 5, illustrating citizen engagement/participation at a variety of different stages in decision making (see Fig. 4.2). Table 4.3 shows the distribution of the case studies by country. This chapter presents 13 of the cases. These have been divided into two categories (see Table 4.2): those which have a broad policy-making objective, and those which involve the shaping of technology, and/or its socio-economic context.

Table 4.2. Categorisation of Chapter 4 case studies (N = 13)

Citizen Engagement in Policy-Making	Citizen Engagement in shaping ICT and its socio-economic context
1 Netmums – UK	8 Bundestag website design – Germany
2 Matacawa Area Coordinating Council – USA	9 K-Net – Canada
3 Future Drug Research and Development Project – Denmark	10 Reflect ICTs – Uganda pilot
4 National Forum on Health – Canada	11 Reflect ICTs – India pilot
5 'America Speaks' – USA	12 Nepal Wireless – Nepal
6 Madrid Participa – Spain	13 Jhai Foundation – Laos
7 Chicago neighbourhood planning – USA	

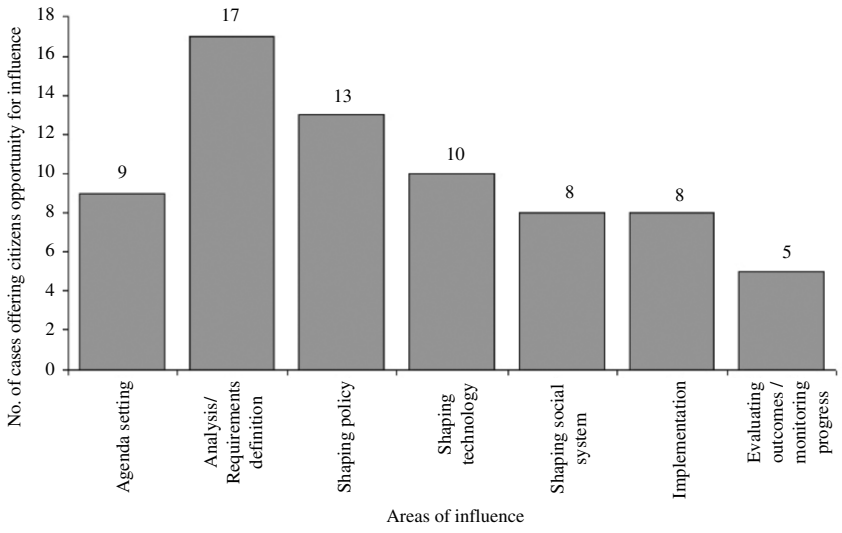

Fig. 4.2. Distribution of cases by stage of citizen influence.

The descriptions of the cases vary in length and level of detail. In part this simply reflects what is available in the public domain. More significantly there has tended to be greater coverage given to those cases where citizens have been engaged at several stages in the ICT development process.

Table 4.3. Distribution of case studies by country (N = 20)

Country	No of Cases
Canada	2
Denmark	1
Europe	
Germany	1
Spain	1
UK	8
India	1
Laos	1
Nepal	1
Uganda	1
USA	3

4.3 Citizen Engagement in Policy Making

4.3.1 Netmums – UK

Netmums (www.netmums.com) is a UK national website, run at a local level, providing an online support network for parents with young children. The network, which has approximately one hundred thousand members, became a valuable medium for government consultation on proposed changes to the regulations relating to employment rights and maternity. In 2005, the Department for Trade and Industry issued a consultation document: Work and Families – 'Choice and Flexibility' (UK Department of Trade and Industry 2005), and Meg Munn, the UK Minister for Women and Equality, invited members of the Netmums network to respond.

The objective of the initiative was to enable parents to describe their current situation in terms of work and to indicate whether they would prefer to be in a different work pattern. Four thousand mothers of young children participated in the consultation which took place between May 10-18 2005. The results contributed to the Government's deliberations on the issues and identified clear challenges for both Government and employers to address.

Meg Munn subsequently sent the following message to Netmums: "*thank you for your report on your recent survey, 'the Great Work Debate', which has fed into the DTI's Work and Families consultation on Choice and Flexibility. This helps to give us an insight into the day to day issues that parents are dealing with in their every day lives*". A full report from the survey was then published on the Netmums site (netmums.com n.d.).

4.3.2 Macatawa Area Coordinating Council – USA

Emery and Purser (1996) describe how citizens participated in decision-making in the community of Macatawa, an area of south-west Michigan in the United States.

The Macatawa region experienced huge growth in population and industry in the 1990s. The rapid expansion led to traffic congestion, lack of services and a rise in juvenile crime. In response to concerns, the Macatawa Area Coordinating Council (MACC) (a local community development organisation) hosted a search conference to plan and create a common vision for a more desirable future for the area. Those invited to participate included mayors, the police, executives, local business owners, teachers, parents, clergy, housewives, social service agency directors, environmentalists, students and transportation engineers. The search conference approach encouraged a bottom-up planning process and the development of a vision statement. The conference group then identified eight strategic areas for action, and formulated action plans for community development initiatives. A key outcome was that those participating made public commitments to move the plans forward. The initiative led to positive benefits not only in terms of the physical aspects of the community, but also in terms of community cohesion. The former chairperson of the MACC *stated: "we walked into the conference as stakeholders, but we walked out as a unified community*" (Emery and Purser 1996).

4.3.3 Citizen Involvement in Future Drug Research and Development – Denmark

A project reported by Moldrup et al. (2000) was carried out in Denmark with the aim of engaging citizens in decision-making about the direction of future drug research and development, in order to help mitigate against social, economic and ethically undesirable consequences. This participative study was one of the first attempts to fully utilise Internet technology

to collect and process citizen input in such a context. Specifically, the study aimed to find out:

- how citizens assessed the degree to which they have choice or can influence future directions in medical drug research;
- citizens' attitudes to drug research and development;
- how citizens would choose to influence decision-making on future drug research and development.

The study used the Delphi method, an iterative series of questionnaires, to reach a conclusion. A 'snowball' process was used to reach potential respondents. All people with the last name Andersen, and also all females with the first name Mette in the Danish email catalogue from www.jubii.dk, were contacted by email to ask for their participation in answering an initial questionnaire. These initial contacts were also asked to forward the email to families and friends to request their participation. As a result, 417 people were sent a second questionnaire and 377 replies were received, giving a response rate of 90.4%. The data were collected by email during January-February 1999, and were processed online by Infopoll in Canada.

The results showed that citizens wanted more autonomy and influence in making decisions about their own health, and that they perceived that the power of health professionals, e.g. GPs, to make decisions on their behalf was declining. Respondents also wanted more involvement from patient organisations, representative citizen groups and ethics committees as a part of the decision-making process concerning future drug research and development.

The researchers concluded that the demographics of the respondents generally matched Danish demographics, although the number of respondents aged 18-50 was higher than for Danish society as a whole. They obtained an unexpectedly high response rate from women, unskilled workers and people aged 50-59. However because the survey was undertaken by email, the researchers cautioned that the results could not be extrapolated with confidence to the population as a whole (Moldrup et al. 2000).

4.3.4 The National Forum on Health – Canada

This case describes a major national consultation on healthcare policy and provision in Canada. It was highly participative in nature and involved one thousand three hundred Canadians selected to be broadly representative of the diversity of Canada's size, demographics, economic activities and ethnicity. Thirty-four different communities took part. The consultation

sought to engage a variety of communities often not included, such as homeless people, street kids, new Canadians, low-income mothers, senior citizens and First Nations. Study circles or discussion groups were used as the mechanism for engagement. Seventy one of these took place. The duration of the consultation was about six months.

The consultation was initially proposed in 1994 when there was growing public concern regarding the perceived threat to long-established healthcare policy and principles. The Federal Government announced that it would engage in extensive dialogue in relation to health and health care in Canada by setting up a national Forum for this purpose. The stated mandate of the Forum was "*to involve and inform Canadians and to advise the federal government on innovative ways to improve our health system and the health of Canada's people*" (Wyman et al. 1999). Public opinion showed that many Canadians welcomed such involvement although there was some strongly expressed opposition and negative criticism. Twenty-four members were recruited to the Forum, "*including economists, health policy analysts, physicians, health care providers, lawyers, academics, business people and community activists. These individuals were all held in high esteem, and their collective credibility silenced much of the anti-Forum sentiment in the initial months of their tenure*" (Wyman et al. 1999). Funding of $12 million was provided for the Forum to carry out its mandate over four years and report back to the Prime Minister.

The initial work of the Forum defined objectives and established the framework for dialogue structured around four areas: **values**; **striking the balance**; **determinants of health**; and **evidence-based decision-making**. In addition to carrying out reviews and research themselves, members of the Forum launched a major citizen engagement exercise to involve individual Canadians, organized groups and key stakeholders. The Forum decided to use a 'study circles' approach to support the engagement process. The approach uses structured, facilitated and in-depth discussions to promote mutual understanding and knowledge sharing, to encourage people to consider each other's viewpoints in a non- confrontational manner. This decision was based on the premise that citizens have a responsibility not just to give their views on important matters of policy but to be informed on issues relevant to policy making. Accordingly, a way of developing the capacity of citizens to contribute effectively in complex policy deliberations was needed. The study circles or discussion groups afford citizens the opportunity to engage in exploration of complex policy issues. Prior to participating in a study circle, interested individuals were asked to register in advance and to commit to approximately nine hours of time, over two to three sessions.

A workbook titled "*Let's Talk*" was developed to help participants to prepare. This contained statistical data, written information and some preliminary analysis of that information, related to the four broad themes initially outlined by the Forum.

The consultation took place in two phases.

Phase 1 was a scoping study to identify the views of Canadians regarding the present and future direction of health and health care issues. Its objectives were:

- to engage Canadians in a dialogue on health and health care and on the changes and improvements needed at the national level; and
- to examine issues as they relate to the health of Canadians.

Phase 2 was to "*ground test*" the directions of the Forum before these directions were articulated into recommendations. Its objectives were:

- to seek views on the Forum's proposed directions and options; and
- to solicit advice on approaches to implementation.

By the end of Phase 1, seventy-one study circles had been expertly facilitated, and in April 1996 key stakeholders were invited to a conference in Toronto. The conference brought together representatives of local, regional, provincial and national organizations with a specific interest in health and health care. More than 200 people attended the conference and participated in professionally facilitated groups to discuss the Forum's four key issues:

- how to allocate and organize resources in health and health care;
- how to move from research to action on the determinants of health;
- how to encourage evidence-based analysis and research in decision-making about health and health care; and
- how to identify the values Canadians hold about health and health care and ensure these values influence decisions.

In Phase 2, feedback on proposed directions and options was sought by Forum members from the wider constituency. Plans for return validation meetings with study circles had to be abandoned when the time-frame for the Forum to do its work was reduced significantly. Nevertheless Forum members remained committed to testing their strategic directions with the public and the second consultation phase achieved this through a telephone survey and two regional conferences in Vancouver and Montreal held during a six-week period in the fall of 1996. These conferences brought more than 200 citizens and stakeholders together with no explicit weighting of public and professional views. A background document, "*Advancing the*

Dialogue on Health and Health Care", was sent to all participants in the community study circles, to conference attendees, to individuals and groups who had expressed interest to the Secretariat and other federal departments, to stakeholders such as the Canadian Medical Association, unions, and community-based organizations.

These events were instrumental in identifying where members of the two groups agreed or disagreed with the interpretations and views of the Forum members.

The conferences and telephone interviews (the latter were held both with study circle participants and randomly selected members of the public) verified that the Forum had done a good job of capturing and responding to the concerns, opinions and suggestions of Canadians. Forum members also reviewed the findings of the consultation and found a strong degree of consensus between the views of the public and stakeholders in both phases of consultation. On February 4, 1997, the Forum presented its findings to the Prime Minister. The report, "*Canada Health Action: Building on the Legacy*", was well received by health care consumers, practitioners, and administrators alike.

Regarding outcomes from the consultation, the government did, in fact, begin to act on a number of these key recommendations. Work was initiated in the areas of pharmacare, home care and the determinants of health, directions firmly rooted in the work of the Forum. In addition, the public consultations illustrated that:

- Canadians are willing to commit a considerable amount of time to policy discussions that have meaning and value to them;
- study circle participants were willing to prepare for discussions;
- participants were willing to modify their views as the discussions continued. For example, participants' sense of imminent decline of the health system was significantly reduced after the discussion;
- participants felt ownership for the directions proposed by the National Forum on Health;
- participants realized that they had a role to play in implementing the directions and ensuring government action;
- the deliberative technique used in the study circles was successful in generating informed and constructive directions for policy change.

As a further outcome, in September 1999, the Annual Conference of Federal-Provincial-Territorial Ministers of Health produced a firm commitment to joint action and collaboration on a number of key health issues (Wyman et al. 1999).

4.3.5 'America Speaks' – USA

'America Speaks' is an organisation which was established in 1995 in the USA to facilitate the involvement of citizens with decision makers in processes that affect their lives http://www.americaspeaks.org. The organisation was founded by Carolyn Lukensmeyer, now president of 'America Speaks', who had formerly been active in public service for 10 years. In 1994, motivated by concern that citizens were being shut out of policy-making processes, she travelled the USA to explore how citizens had organised themselves effectively, made an impact on local policy concerns and sustained their engagement over time.

In January 1995, armed with the results of her findings, she brought together 50 elected representatives, journalists, community activists, organisational developmental consultants and foundation representatives to work out how best to be able to involve citizens in policy making. The meeting evolved a concept of large-scale citizen forums, which could be used in national dialogue on key public policy issues. These forums, known as 21st Century Town Meetings, involve hundreds of thousands of people in meetings where they can discuss and deliberate on issues. Participants are recruited across all demographic groups. Up to five thousand people at a time may be invited to such a forum, meeting around tables in groups of 10-12 to share ideas and opinions. Each table is assigned a facilitator skilled in small group dynamics who ensures that the group stays focused on the topic under discussion and follows a democratic process. Ideas are recorded on a laptop on each table, connected by wireless to a central console of computers managed by a Theme Team, whose responsibility is to collate and record the deliberations of the forum. Each participant can vote on an issue using a polling keypad. Decision makers take part in table discussions, observe the process, and respond to input by answering questions at the end of the meeting. A preliminary report on the day's meeting is distributed to participants before they leave.

Since 1997, 'America Speaks' has conducted forty-five 21st Century Town Meetings in 31 states around the U.S. and in the District of Columbia. Projects have included helping the District of Columbia and New York to target changes in budgetary policies needed to improve fiscal status. Since 1999, 10,000 citizens of Washington D.C. have held Citizen Summits every two years to help develop the city's budget and strategic plan.

In 1999, funded by the Pew Charitable Trusts, 'America Speaks' engaged a broad cross-section of Americans in a national dialogue about Social Security reform and urged Congress to support legislation that reflected citizen preferences.

'Listening to the City' was a project in New York in 2002, which sought the views of citizens on the development of the World Trade Centre site after the 9/11 bombings. The outcome significantly impacted the rebuilding process and site design, and changed the decision-making climate.

The Deliberative Democracy Consortium was created in 2002 as a result of initiative from 'America Speaks' to design and experiment with innovative methods of citizen engagement. (http://www.deliberative-democracy.net/) One project researched the development of online tools and services to promote citizen engagement online (America Speaks n.d.).

4.3.6 Madrid Participa – Spain

The City of Madrid launched the Madrid Participa e-consultation initiative in 2004 as part of its aim to bring government closer to citizens through the use of new ICTs. The broad objectives of the initiative were to promote citizen engagement in local governance, to promote the use of ICTs as tools for engagement, to strengthen neighbourhood associations, and to help bridge the digital divide. Specifically, the e-consultation initiative aimed to reach a large number of citizens and to trial a number of different voting channels (Barrett and Reniu 2004).

The first e-consultation, to test citizens' responses to new ways of participating, took place in the Centre district of Madrid between 28-30 June 2004. A website (www.madridparticipa.org) was constructed to provide information to citizens about the e-consultation and to collect votes as part of the consultation itself. Six polling stations were set up where citizens could register to participate in the e-consultation. These polling stations also had computers connected to the Internet which citizens could use for voting, and volunteers were available to teach citizens how to use the technology (Barrett and Reniu 2004).

Once citizens had registered for the consultation, they could vote electronically through the Internet either at the polling centres or independently. Prior to the Madrid Participa initiative, the City had already established twenty-one public Internet access centres, primarily in markets, neighbourhood association offices and centres for the elderly, for those who did not have personal access to these technologies. Citizens could also choose to vote via mobile phones with Java or SMS messaging. Secure voting software was made available. The e-consultation covered questions about improvements in public infrastructure, quality of life issues and revitalization activities (Cervelló 2006).

Before the e-consultation took place, a communication exercise was carried out to inform and engage citizens, and volunteers and other local

government officials were prepared and trained. Personalised letters explaining the purpose and the methodology of the e-consultation were sent to all those 136,337 people in the centre of Madrid who were entitled to take part. This proved to be the most effective method for recruiting citizens to take part in the e-consultation. Media support for the exercise was widespread and very positive (Barrett and Reniu 2004).

A total of 882 voters (0.65% of the electoral roll for the district) took part in the first e-consultation. Of the voting means available to them, 53% voted electronically in one of the polling sites, 32% voted remotely via the Internet, 3% used mobile phones with Java, and 9.5% used SMS messaging. Half of the respondents approved of electronic means to participate in consultation and in binding elections. Just 15% said that they would be reluctant to use electronic tools for voting in binding elections. Overall, most who took part were very positive about the effort to engage them in discussion, but were critical of the questions asked in the e-consultation and the options for responses. People were concerned about the need for advanced security for e-polling (Cervelló 2006).

A sociological evaluation of the exercise showed that the demographic profile of respondents compared with the population as a whole lacked people in the 16-24 age group and amongst those aged over 70. While EU and Latin American immigrants took part, Asian and African immigrants, of whom there are significant communities within the area, had a participation rate of virtually zero.

Although the response rate was low, the City of Madrid was encouraged to undertake three further e-consultations during 2005. The participatory web portal has been re-designed, and the initiative has promoted awareness of the City's public access Internet centres and helped people to learn to use ICTs. The City council believes that in future participation rates can be improved with an aggressive communications campaign and with a more efficient registration process.

4.3.7 Chicago Neighbourhood Planning – USA

This pioneering case describes active engagement of a group of citizens facilitated by use of ICT in a planning initiative in Pilsen, Chicago. Pilsen is a largely Mexican-American community of approximately 50,000 people (1999 figures) adjacent to the University of Illinois in Chicago (UIC). At the time of the case study (1999) the expansion of the UIC had encroached on housing and businesses in the district and had also resulted in the closure of large, well-publicized community programmes. This situation had led to overall distrust of the university by local residents. The university

and community leaders alike recognized the need to improve the relationship and rebuild trust. When community leaders identified a need to redevelop the main commercial core of the Pilsen district (18th Street) as an attractive commercial area and to address problems such as urban decay and crime, they saw an opportunity to bring all stakeholders together, including university staff and local residents, in a participatory planning and design initiative (Al-Kodmany 1999).

A planning team was formed comprising 25 community residents, including representatives of the 18th Street Commission, and two planners, two architects and an artist from the university. The university's highest priority for the engagement was to build community trust. The team's objectives included:

- creating a mutually respectful partnership with Pilsen residents;
- preserving the history of the neighbourhood;
- providing a broader understanding and context of urban issues;
- exploring effective visual communication methods.

The process began by exploring current conditions in the neighborhood. The university team members soon realized however, that the techniques they were using to present information to residents (mainly slide images presented by projector in a fixed sequence) were not promoting meaningful public participation. This technique did not allow participants to visualize new developments in context, and participants became focused on small details of existing sites, rather than "*applying their community knowledge and expertise to develop overall strategies and solutions*" (Al-Kodmany 1999). The UIC team therefore sought a visualization environment which would promote full citizen engagement. To do this they embarked on building an interactive geographical information system (GIS) image database. Existing maps, photographs, tabular detail, and text information about the Pilsen district were used to create thematic layers relating to, for example, demographics, transportation, housing and property, economics, history, and crime statistics. The GIS provided critical contextual information but this needed to be supplemented by a way of creating and manipulating visual representations of new ideas. This facility was provided by a graphics artist, trained to draw urban scenes, using an electronic sketchboard which was linked to the GIS. The artist captured participants' wishes and concerns and produced rapid sketches that could be evaluated and annotated. Participants were also able to draw their own visualizations on the sketchboard.

These two tools were used during the course of a series of planning workshops; two screens enabled the presentation of the GIS images and

the artist's sketches to provide 'before and after' scenarios. The tools enabled participants to visualize aspects of the community easily, helped to generate new requirements, and to evaluate and build consensus about solutions. In a final development, photo-manipulation was used to create realistic visualizations of new ideas for the neighborhood which had been developed and explored using the other tools.

While the technology at the time was more limited than current visualization software, this case study is an example of how technology can assist people to envision their future environment. The technology was used to augment participants' imagination and local knowledge to help them to define their needs, identify solutions to problems and in such ways shape desirable digital futures. This technology-enabled engagement represented a considerable departure from the established ways of doing things. Traditionally, planners and architects have built models, which they follow up with presentation to an audience. The GIS capability made it possible for community residents to be invited not just to give their responses to proposals presented to them, but to offer their own suggestions for redevelopment throughout the planning process. As an example of a specific design benefit arising from the contributions of residents, discussion and visualization had revealed that existing sidewalks (pavements) were totally inadequate for pedestrian use, and that the elderly and disabled had particular problems moving around the neighbourhood. As a result, sidewalks became a priority in the redevelopment proposals. Another example related to the proposed landscaping. When the artist drew in large trees lining the main highway, one resident pointed out that the underlying sewer system was a vaulted structure which would not be able to support the trees. Shrubs and small plants were therefore substituted.

The exercise was successful in promoting participative engagement by the community. The findings of the study confirm conclusions by other authors about public participation and the evolving role of the planner as an "*enabler*" or "*facilitator*", rather than simply as a "*provider*" of services (Al-Kodmany 1999).

4.4 Citizen Engagement in Aspects of ICT Design

The seven examples of citizen participation/engagement presented in 4.3, are illustrative of the varied ways in which people are involved and engaged in informing decision-making and policy. In the examples reported, while ICT has been important as an enabler, the focus of attention has not been explicitly on the design of ICT. For this next section we sought

published examples of citizen participation/engagement explicitly in the design and shaping of ICT. Although we found many such examples, the scope of citizen involvement has tended to be rather limited. For instance, there are many cases where citizens have been given the opportunity to design web pages, or to specify their needs of a website. We have included just one example of this type of engagement in favour of describing cases where the engagement has a broader focus, addressing ICT in the context of social and community needs and contributing in some way towards desirable digital futures.

4.4.1 Bundestag Website Design – Germany

This case provides an example of a consultative exercise carried out with citizens by the Bundestag – the German parliament. The objective of the consultation was to inform design of the national government website. The respondents were self-selecting. Their names were sourced from four mailing lists containing names of people who were interested in the work of the parliament and who wished to receive regular e-mails informing them about new developments. This gave an address pool of approximately twenty thousand individuals.

The project used ICT for online consultation to find out what information, functionalities and content offerings citizens of the German Bundestag would like to see provided. "*The aim was to gain better knowledge of the desires and criticisms expressed by users of the Bundestag's website so as to be able to optimise the site's content based on this information*" (Fühles-Ubach 2005).

The process used open ended questions. Two phases of development were used, with feedback of findings from the first round given to participants who then had the opportunity to participate in response to these. There were 493 participants in the first phase and 345 in the second phase. At the end of the project, 242 participants responded to a short questionnaire evaluating the whole participatory process itself (Fühles-Ubach 2005).

This process of citizen engagement was regarded by the Bundestag as highly successful, and resulted in numerous new suggestions from citizens that could not have been identified by the previously-used methods of simple questionnaire surveys. "*The intention with these methods is to prompt the target groups concerned into an active dialogue which then also helps shape the planning and implementation of processes in whose progress they are interested or even involved*" (Fühles-Ubach 2005).

Findings from the process of citizen engagement were that:

- women and young people were under represented in the process;
- the over 65's were well represented;
- participants were interested not only in content but also in user friendliness;
- participants were eager to see if they had been listened to and had had an impact on what was done;
- almost half the responses were submitted in the first two days of the project with only a slight increase resulting from reminder emails. They thus suggest that a reminder should be sent after only 4–5 days, allowing data collection to be carried out over 2 not 3 weeks (Fühles-Ubach 2005).

4.4.2 K-Net (The Kuhkenah Network) – Canada

This is a case study of a participative, broadly-based programme underway in geographically remote communities in Canada. The Keewaytinook Okimakanak (KO) First Nation communities are part of the Nishnawbe Aski Nation, located in north-western Ontario across an area roughly the same size as France. The total population of the area served is about twenty five thousand, most of whom are aboriginal people living in communities of about three to nine hundred inhabitants. For most of these, the only year-round access into or out of their area is by small airplane, although most have a few weeks of winter road access. Hospital and high school access, for example, have traditionally required air travel, although most homes are within walking distance of local services and administration buildings (Beaton 2005). Demographically, nearly half of the community members are under the age of 20; there is a high percentage of unemployment (36%) among adults, and high school completion rates are low. However the communities are located in resource rich areas; forestry and mining are expanding and tourism is an economically important activity. The programme centres around K-Net (the Kuhkenah Network of Smart First Nations) – a telecommunications network that provides broadband connectivity to communities in the region, with associated support services. The ICT facilities have been harnessed by communities to deliver improvements in local health, education, and economic development.

The initiative began in 1993/4 when local education directors identified the need to equip schools in the area with computers and greater access to information. At the time, telecommunications services to the region were poor, with some communities having no telephones and others only having a single phone to serve all residents. In response, the Keewaytinook Okimakanak tribal council began mobilizing local and federal funding.

As a result they were able to establish K-Net (the Kuhkenah Network – Kukehnah being an Oji-Cree term for *everyone, everywhere)* to provide an electronic bulletin board service, offer training and acquire computers for each KO First Nation. The first communities on the network (which at that time did not have telephones) were given access to the Internet and instant messaging. Federal resources were then successfully leveraged to get some of the communities connected to the phone for the first time. By 1999, the programme had fulfilled the original objectives of providing regional telecommunications connectivity (bandwidth), training, promoting awareness, linking the technological needs of the communities with various funding and development programmes to facilitate communication (Ramirez et al. 2004).

In 2000 the programme organisers bid to the Canadian Government for funds to become a Smart Communities Demonstration Project. The competition required the winners to demonstrate both community engagement and 'smart results'. In other words, the sponsors "*wanted to ensure that services were developed with the communities, not for them*" (Ramirez et al. 2004). K-Net succeeded in the competition to become Canada's only Aboriginal Smart Community Demonstration Project. This brought grant funding of $5 million between 2000 and 2004, which had to be matched with $5 million from other sources, including private businesses, to enable an expansion of the programme's activities.

A series of facilitated workshops was held in communities across the region to engage community members in defining their own requirements and priorities for expansion. As a consequence, two important developments emerged. One is the online Keewaytinook Internet High School (http://kihs.knet.ca/). Chiefs and community elders could see that the use of computers and Internet communications would make life far more interesting for their young people, as well as providing them with new skills. The establishment of the online High School has enabled young people from grade 11 upwards to stay within the support of their families and communities, rather than flying out to board at High Schools, whilst also giving them the opportunity to contact young people in other communities. From September 2005, online schooling has also been available for grades 9 and 10. The school is authorised to give credits leading to the Ontario Secondary School Diploma. The online High School is seen as a critical benefit to community, not only in providing an attractive educational facility which can encourage young people to complete their high school education, but also in retaining young people within the community at a time when they are maturing and could lose a sense of belonging by having to board away from home. The K-Net technologies also of course allow people of all ages in the community to educate themselves through participating in

government programmes, university courses and other education and training activities (Beaton 2005).

A second priority area for development was health services. A Keewaytinook Okimakanak Telehealth project was initiated which delivers a variety of telemedicine applications. There are now telehealth workstations in each remote, fly-in community. These have diagnostic tools, a document camera for transmitting X-rays for diagnosis, a patient microphone, a video monitor, and a videoconference unit for consultations and telepsychiatry sessions. Community members have been trained to be telehealth co-ordinators, and can link patients with medical experts in hospitals in urban centres. The Telehealth facilities have proved cost-effective, and have delivered several benefits both to community members and to health professionals. They have helped to reduce the need to travel by air for health consultations, and have helped health professionals to deliver a more responsive and targeted service. Through the communications facilities and high speed access to information, healthcare workers have been able to share best practice, improve their own learning and understanding of health problems, and build up support networks among other professionals.

The K-Net network has also focused on providing opportunities and support for economic development. A unique aspect of the network is that it is wholly-owned by First Nations communities. Each community provides local support personnel, sets service rates and determines local billings. Job opportunities have been created in e-centres, by the Internet High School, and by the Telehealth programme. Indirect financial benefit has also come to the communities, e.g. as a result of providing accommodation to the people coming into the region to undertake some of the new jobs. The infrastructure is also providing some income generating opportunities by making traditional arts and crafts available to a world market (see: http://arts.knet.ca). Savings are being made in the cost of telecommunications, and as a result of the reduced need to travel out of the community for education and health facilities.

The broadband facilities have enabled the community members to communicate more easily both with other community members, with family members who have moved away, and with the rest of the world. This has had benefits in reducing the sense of isolation felt by community members which has been an important factor in encouraging migration of young people out of the community. The facilities have also enabled people to contribute local and culturally relevant content, including native language resources, which helps both to preserve the unique identity of the KO First Nations community and to share it to promote understanding. For example, K-Net hosts a forum called Turning Point, "*a dynamic and respectful meeting place for First Nations, Metis, Inuit and diverse*

non-Aboriginal peoples" which enables aboriginal and non-aboriginal people of Canada to have open and direct communication with each other (http://www.turning-point.ca).

Sustainability, balance and respect are important values to the KO First Nations people which have influenced the way in which K-Net has developed. The involvement and commitment of the tribal chiefs and leaders has been instrumental in the success of K-Net. Evolution of the network and its services takes place through careful negotiation and recognised consultations. Each community is expected to provide funding and resources for use of the network. The initiative has delivered a wide range of benefits to the communities and to individuals, and it has also been influential in providing a model of good practice of community ICT development, and in influencing federal telecommunications policy within Canada (Ramirez et al. 2004).

4.4.3 Reflect ICTs Project – Pilots in Uganda and India

We have selected two pilots for analysis from the *Reflect* ICTs project carried out by ActionAid, a Non-Governmental Organisation (NGO) which operates internationally. ActionAid is explicitly committed to improving the life chances of the poorest people in the world. This project has been sponsoring participative programmes of information gathering and assessment in Uganda, Burundi and India (Beardon 2005). The project focuses on poor people, recognizing that they are particularly likely to be women, the very old and very young, and internally displaced individuals. These people have the least access to reliable and timely information which would help them to increase their life chances and quality of life.

Unusually for participation projects, the documentation published by ActionAid provides extensive description of the participative processes. This includes a clear statement of the principles and approach underpinning the project. "*New technology needs to be rooted in the existing, and new technologies need to make sense in terms of people's own coping strategies. In terms of ICT4D* (ICT projects for development in Africa)*, this means applying new technologies to meet people's expressed needs and to tie in with their existing motivations, not an end in itself*." The stated aim of the project as a whole is "*not to provide ICTs to people. It is to build people's capacity to identify and articulate their information needs, to consult experts and information providers, to hold people accountable, to make demands, to be able to access, share and act on information in the long term*" (Beardon 2005).

These pilot projects are particularly relevant to this book as they show (i) examples of building capacity for engagement in planning and decision-making, (ii) the importance of appropriate learning opportunities, and (iii) the key role of tools for supporting learning which are designed to the suit the characteristics of the people involved. This is especially important and challenging when seeking to engage people who lack basic literacy skills in design and decision-making. As the *Reflect* ICTs project appears to offer many lessons and good practice in successful engagement with people who are severely disadvantaged in many respects – including education, economic status and social position, we believe it worth reporting on two of the pilots here. We have therefore selected pilots in Uganda and India for analysis and discussion.

In the participative process used in all the pilots in the *Reflect* ICTs project, facilitators recruited from the community were trained by the *Reflect* organisation and supported by the pilot team. Groups, or circles, of people in villages were set up according to participatory principles, to discuss local issues and develop action plans. The role of the facilitator was to support each group. A tool was developed to help the groups think about and discuss a range of topics. This consisted of five resource sheets, covering respectively the ***Value of information; What makes information useful; Documenting local knowledge; Accessing information*** and ***Identifying information gaps.*** The facilitators for each group, supported by the pilot teams, led the articulation and analysis of communication issues identified by participants.

(i) Reflect ICTs Project – Uganda Pilot

The pilot is located in the Kabarole district near the border with the Democratic Republic of Congo. It involves *Reflect* groups and six school-based youth groups. Most people in the community are subsistence farmers, living in absolute poverty. Their lack of information is seen as a major barrier to improving their lives. For example, without knowledge of the prices at which produce is sold at market, people sell their goods at half the market price. The result of the *Reflect* circle analysis of communication patterns, information flows and needs showed that the most widely used means of communication were talking, meeting and drumming. These were also considered to be the most useful ways of communicating. Radio was available but less affordable and although video was seen as desirable it was less accessible. Analyses of information needs revealed the priorities of group participants, listed in Table 4.4.

Table 4.4. *Reflect* ICTS Uganda Pilot: Prioritised information needs by gender and age

Group	Information Need
Men	- Where to access credit
	- Markets for their produce
	- Job opportunities
	- Modern farming practices
	- Land ownership rights
Women	- Where to access credit
	- Agriculture
	- Health, particularly HIV, antenatal, reproductive
	- Education opportunities for girls
	- Cooking
	- Women's rights: dowry; children; poverty
Girls	- Education opportunities for girls
	- Reproductive health/HIV/AIDS
	- Women's rights
	- Job opportunities
Boys	- Business/job opportunities
	- Education
	- Agriculture
	- Health: HIV/AIDS, condom use

Based on the information needs identified in the *Reflect* circles, plans were developed in an iterative process in teams which included local participants, ActionAid staff, and members of partner organisations. In the next phase of the project, pilot teams were able to analyse, discuss and debate ICT issues and devise a plan founded upon the stated communication preferences, while the second phase was for the implementation of the plan. As a result of this information needs analysis and action planning by citizens, Uganda now has a central information resource centre. "*This is a central place for information to be stored and shared and provides a one-stop centre for sharing information between partners, including communities, facilitators, local government and traditional information providers. Equipment includes internet-connected computers, digital cameras and world space receivers. Air time is also being purchased for radio programmes. The centre will also develop a databank of traditional medicines and their applications, act as a training centre, and undertake pro-poor advocacy with information providers and policy makers on the development and information needs of poor people*" (Beardon 2005).

(ii) Reflect ICTs Project – India Pilot

The *Reflect* ICTs pilot in India was located in Balangir in Orissa, (Eastern India). Major contributing factors to the extreme poverty in the region are the alternating droughts and floods which occur with increasing frequency. In addition, a complex array of social, economic and political factors (including a strict and active caste system) impact on the quality of life experienced by most of the population. The poor do not participate in local decision-making and lack access to information which would enable them to improve their lives.

Following the same process described in the Ugandan pilot, information needs were identified in the *Reflect* circles. The needs identified related to sustaining the basic livelihoods of the participants – as listed in Table 4.5.

Table 4.5. *Reflect* ICTs India Pilot: Prioritised information needs

Information Need
- Citizens rights
- Available benefits
- Schemes to ensure food security
- Agricultural practices
- Water conservation
- Seasonal employment opportunities
- Local governance

Documented records of the pilot report that, as a result of participation in the first stage of the pilot, people have become more aware of their rights – e.g. the benefits and services to which they are entitled. The communications system under development in the second phase of the project is informed by the information needs analysis conducted in the *Reflect* circles. The emerging system is being designed to strengthen existing communication patterns through the preferred channels explicitly specified by the participants. It is therefore developing as a sociotechnical system, rather than simply a technical system. This means, for example, that the system will offer facilitators support and information in recognition of their acknowledged status as trusted and reliable sources of information. The system has been designed to provide a wide range of information using electronic media, including video, audio and television and paper-based records. These will be located at district level for use by participants of all *Reflect* circles on request. Where it is available (e.g. in the offices of some partner organisations) the Internet will be an additional resource to feed information into the system. Local village resource centres will house materials generated locally and developed by *Reflect* groups (newspapers

and letters, posters leaflets and booklets, cassettes, pictures and so on). In addition a radio set would be available for each circle. Plans are in place to monitor the system on the basis of usage and application of information (i.e. not just by the simple availability of information). Indicators elaborated by participants in the *Reflect* circles include: numbers of landless families; migrants and preventable deaths; development funding; literacy; and participation in decision making. Thus there is built-in evaluation of the pilots, based on criteria defined by the participants in the pilot. Monitoring and evaluation have been planned both of the systems themselves and of the *Reflect* ICTs project more widely (Beardon 2005).

4.4.4 Nepal Wireless

The case reported here is a participative project which was the brainchild of a single individual, Mahabir Pun, a computer engineer who had studied for a Master's degree in Education in the USA. When he returned to his native Nangi, a mountainous village in Nepal, he resolved to set up a computer network which would provide computers and Internet connection to Nangi and its neighbours. On the website http://nepalwireless.net/, Pun explains that he realised that he would need to bring computers to the villagers to show them exactly what they could do with ICT (Pun n.d.).

When his school in Nangi received a gift of computer parts from an Australian school in 1997, Pun assembled computers in wooden boxes to equip classrooms. He tried to obtain a phone connection, which could be used to connect to the Internet. The villagers got a radio phone but the line was not clear. The cost of a satellite phone was beyond their means. Pun wrote to the BBC reporting his experiences and his story was published in 2001. As a result of the publicity, Pun received help and support from around the world and learnt of 802.11b wireless technology, which could be used to connect computers in a network and to the Internet. Two foreign volunteers came to Nangi to help set things up, and more people followed. A small pilot scheme ran successfully in September 2002. Pun appears to have engaged people through demonstrating the potential of ICTs – by developing their awareness of the capabilities, helping them to articulate their needs and to recognise potential uses which will benefit them.

Subsequently, the network has been extended to seven villages. The villages are connected by wi-fi, although shortages of powered wireless devices and poor weather conditions mean the connections are not constant. The original relay station set up at the top of a tall tree, 10,800 feet above sea level, and consisting of a TV dish antenna and one litre measuring can, is still working (Since1968.com 2004).

Following the success of the trial, an American, Mark Michalski, helped Pun to write a proposal for a grant from the Donald Strauss Foundation to extend the network with more rugged and up to date equipment. The project's website is hosted on the server of one of the original volunteers, Jonni Lehitranta, in Finland.

"*Although there is a shortage of power at the schools, relay stations, and proxy server station, the villagers still can send and receive their messages through NetMeeting or through e-mails using our POP server located in Finland*," reported Pun (Since1968.com 2004).

Nangi and Paudwar villages use the networks to communicate with their yak herders and camping grounds in the mountains. The herders use the Internet to buy and sell livestock and share veterinary tips as well as staying in touch with their families. Children in two high schools use email to write to each other and to pen-pals abroad.

The educational programme is now supported by a non-profit organisation in the USA known as the Himanchal Education Foundation. Not only does the Foundation support education, it is also promoting income-generating schemes such as handicrafts, farm animal-rearing, fish farming and tourism resorts (Himanchal Education Foundation 2005).

The villages are generally subsistence communities, relying on their own animals and vegetable cultivation. The only income has been from men joining the military, but this may change as children acquire ICT and other skills.

Both Nepal Wireless and the Himanchal Education Foundation rely heavily on volunteer support and commitment. Mahabir Pun has been the driving force, operating in a pragmatic way and taking account of complex political circumstances. There are no reported evaluations of the project in the public domain as yet. The considerable interest in the international community suggests there are worthwhile achievements to report.

4.4.5 Jhai Foundation – Laos

The Jhai Foundation is an organisation that works with the people of Laos. The purpose of engagement was to create various ICT applications that support community economic and social development. Broadly-based participation of many stakeholders characterises the initiative. The foundation has a board of directors consisting of people with varying backgrounds and skills (e.g. employment specialist, computer company executive, lawyer, information technology professor, social worker etc.), an advisory board including a "*project management engineer and development specialist, an investment banker, three highly trained nurses, a veterinarian programme*

director, a farmer, computer experts, a psychologist, three medical doctors, two priests, business executives, and a former senior executive of Applied Materials" (The Jhai Foundation n.d.). The foundation has a number of active projects in which local people can choose to participate on the basis of their preferences and skills. The participants in the projects are volunteers and any project can have up to 225 volunteers per week. Volunteers come from many domains and walks of life. The Jhai Foundation website lists amongst the volunteers "*farmers, attorneys, business people, accountants, graphic designers, website designers, database management experts, construction workers, computer programme trainers, agricultural experts, small business developers, coffee tasters, coffee industry experts, clerical workers, bankers, warehousemen, procurement specialists, doctors, nurses, hospital administrators, food industry technologists, weavers, engineers, telecommunication specialists, well-diggers, teachers, and non-profit management experts. The ethnicity of the volunteers are typically ¼ Laotians, ¼ Lao-Americans, and ¼ are veterans of the Vietnam war*" (The Jhai Foundation n.d.).

The projects supported by the foundation initiative include coffee growing, education, information technology and economic development. The information technology project in particular has introduced computers into the schools on Laos, created four Internet learning centres to teach both adults and children, and has plans to establish 20 more. Regarding the first learning centre, the Foundation reports: "*the whole community feels it owns it. It teaches both kids and adults. And it is initiating a collaborative, project-based learning project that is unique in the world. Its project is to collaborate with schools in similar latitudes and in the U.S. to discover ways to experiment with local organic cash crops for local and international markets. From the beginning kids make money, their parents find ways to keep their kids home, and the school gets new community resources – parents who are farmers, agriculture extension agents – that they never had before*" (The Jhai Foundation n.d.).

Overall, the foundation has helped 25 villages improve their social and economic well-being, helped villages create many new businesses and moved 10 tons of medical supplies. The projects produce high impact because their communities own them. "*We always hire locally, if possible, and help fund contracts, signed by local people, with local experts…Jhai helps create change that is sustainable, because it is locally conceived and implemented to be that way, with minimal interference and direction from outsiders. And we always try to start slow, making sure everyone is on board, building momentum as we go*" (Jhai Foundation n.d.).

The perceived benefits are significant for the individuals and communities involved. It appears that the Jhai Foundation demonstrates considerable

good practice in engagement/participation, giving rise to positive outcomes and significant benefits for the individuals and communities involved. The Foundation has received a "*Best Practices*" award from the United Nations Secretariat, e-ASEAN, and UNESCO (Bangkok) (Jhai Foundation n.d.).

4.5 Conclusions

The cases considered in this chapter reveal a wide variety of practice in existing citizen engagement and participation projects. There is great diversity in every respect, from the objectives of the engagement (analysing information needs, improving services, and informing/influencing government policy) to the nature of the impact of the various initiatives. Initiatives take place in both developed and developing countries, and involve a wide range of people differing on numerous attributes, including levels of education, trades and professions, social position and economic standing, background and experience. The exponential growth of interest, research and experience in these topics is demonstrated by the scale of an international conference on Engaging Communities held in August 2005. The conference attracted 400 papers and delegates from 26 countries. When these are published, the content of the papers will represent a rich resource and will merit analysis on the basis of the framework developed in this book.

Although the processes of citizen participation are often not fully documented, the progress and successes reported by the projects described here could not have been achieved without the active cooperation and support of participants. Despite the immense diversity of the cases examined, common themes emerge. The next chapter continues with the reporting of case material, this time with a specific focus upon the engagement of citizens who are regarded as marginalized or in danger of social exclusion. Key issues and implications arising from all of the 20 examples are analysed in Chapter 6 to reveal the generic processes and benefits of citizen engagement.

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