

Building Capacity in Six Disadvantaged Communities Vulnerable to Natural Disasters

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Abstract

Problem. Disaster plans almost always do not benefit from the knowledge and values of disadvantaged people who are frequently underrepresented in planning processes. Consequently, the plans are inconsistent with the conditions, concerns, and capabilities of disadvantaged people.

Purpose. To describe and analyze an Emergency Preparedness Demonstration (EPD) project aimed at reducing the risk to life and property in six disadvantaged communities in Delaware, Maryland, North Carolina, Pennsylvania, Virginia, and West Virginia. EPD involves a community-based participatory planning process aimed at building the capacity of disadvantaged communities threatened by disasters.

Methods. To understand the successes and limitations of the EDP approach we used multiple sources of evidence. Semi-structured interviews were conducted with 30 key informants, field notes were taken during attendance of community planning meetings, and documentary materials prepared by local planning teams (memoranda, vulnerability assessments, household surveys) were content analyzed.

Results and conclusions. Five implications were derived from the EDP experience that were found to be critical for success in organizing, planning, and capacity building in the EDP communities: recruit participants for inclusive collaboration; provide analytical tools to co-develop information and empower people; employ coaches to organize and facilitate sustainable community change; design a review bottom-up process for selection of strategies that holds communities accountable; and build capacity for implementation of strategies.

Takeaway for practice. Disadvantaged population groups can reduce their vulnerability to hazards through planning. However, they need assistance from an external organization to make positive progress. A team of planners with expertise in community development and disaster planning can serve this function, but they must have sufficient funding and commitment from donor organizations to do deep and sustained civic engagement work.

Keywords: disaster planning, disadvantaged communities, social vulnerability, civic engagement, empowerment

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The 2005 Hurricane Katrina offers a vivid portrayal of the inequalities of disaster planning in American society (Cutter 2001, Lindell and Perry 2004, NRC 2006, Peacock, Morrow and Gladwin 1997). While the inequalities may have been news to some, they were not news to the displaced people in many other communities along the Louisiana, Mississippi, and Alabama coasts. If the people in the poor wards of New Orleans, for example, had been consulted, they would have easily identified the significant weaknesses of the evacuation plan. They would have made clear that the elderly, the disabled and the poor would not be able to leave. They would have said that most of those without cars -- 25 percent of households in New Orleans, overwhelmingly African-Americans -- would not be able to leave. Many in the media accused the victims who were left behind of creating their own human disaster because of their own poor planning (Bourque et al. 2006).

In the Hurricane Katrina case and in many other vulnerable communities across the nation, disaster plans do not benefit from local knowledge, and are inconsistent with local conditions, concerns, and capabilities (Cooper 2004).¹ The few studies that have examined the links between local disaster plans and disadvantaged populations indicate that plans are less effective in meeting the needs and values of the disadvantaged compared to the general population in the context of emergency preparedness and response (Horney et al. 2010, Perry and Lindell 1991), mitigation (Cooper 2004, Maskrey 1994), and recovery (Berke and Beatley 1997, Ganapati and Ganapati 2009, Oliver-Smith 1991).

In this paper, we describe a community-based participatory planning project aimed at building the capacity of socially vulnerable (or disadvantaged) communities threatened by disasters. Social vulnerability consists of key social characteristics (women, racial/ethnic minorities, low-wealth, and the elderly) that lead to the disproportionate susceptibility of various groups to harm and also govern their ability to respond.² The project was undertaken by the authors of this report who formed a partnership that included community development planners at MDC Inc., a non-profit organization, and the faculty and students of the University of [to be named]. With an emphasis on community-driven issue selection, community collaboration in discovery and diagnosis, and action to effect change as a part of the decision process (Minkler et al. 2008, Reardon 1998), we believe that our approach is particularly well suited to collaborative efforts focused on the deep disparities in disaster vulnerability.

We address two core questions. What factors hinder participation by disadvantaged groups in disaster planning? How can planners and policy makers overcome these barriers to enable participatory planning in socially vulnerable communities? Addressing these questions responds to calls for improving knowledge on public engagement strategies aimed at building the capacity of disadvantaged communities to improve their disaster resiliency and reduce vulnerability (Berke and Campanella 2006, Ganapati and Ganapati 2009, Peacock et al 2008). A recent consensus document prepared by leading experts in the human dimensions of disasters observes that there is remarkably little evidence focused on this problem (National Research Council 2006, chs. 2, 3 and 6). The authors of this document contend that while there is an emerging body of research that has examined public participation in disaster planning, less is known about factors that motivate engagement by marginalized people (National Research Council (2006, chs. 2, 3 and 6).

The paper consists of three parts. We initially describe the roots of an Emergency Preparedness Demonstration (EPD) project aimed at reducing the risk to life and property in six disadvantaged communities in Delaware, Maryland, North Carolina, Pennsylvania, Virginia, and West Virginia. We then discuss the community selection process, and data collection and analysis procedures used to assess the capacity building efforts in EPD communities. Next, we chronicle six critical factors that explain the degree of success (and failure) of the organizing, planning, and capacity building activities in each community. Finally, we review implications of the partnership's grassroots activities to offer guidance for prospective non-profit and university collaborative initiatives engaged in disaster resiliency planning in disadvantaged communities.

Principles for Building Community Capacity

While scholars and practitioners emphasize the need for participation in planning, the problem of general apathy for some issues (e.g., disaster preparedness and mitigation, biodiversity, and maintenance of infrastructure) that are central to planning has been well-documented (see, for example, Burby 2003, Brody et al 2003, May 1991). Attention to participation in planning assumes that people with a stake in the outcomes of planning decisions will engage in public debate, and that the core challenge is to educate, mediate disputes, and build consensus on proposals for action (Burby 2003). However, seeking resolution of these issues is particularly problematic without a supportive public willing to act (May 1991).

The problem is especially serious for disadvantaged groups who often face racial discrimination and class inequalities, and the uncertainty and suspicion that accompanies these conditions. Breaking down these barriers hinges on community-based planning that embraces democratic decision making, where public officials and local people work together in a process

of mutual learning in which local people have control over the process (Innes and Booher 2004). The core aim is to build local capacity to engage, organize, and take action on locally defined priorities. Berke (1995), Ganapati and Ganapati (2009), and Maskrey (1994) maintain that the single most striking feature of an empowerment in the disaster planning context lies less in the use of specific techniques and methods but in who defines vulnerability problems and who generates analyses, represents, owns and acts on the information which is sought. Asking the “who” question enables planners to look more closely at what is meant by public engagement. Rather than just taking part, the focus is on the central issues of empowerment and control in making and acting on choices.

The bottom-up participatory approach raises several choices about how disadvantaged people can become engaged in the disaster planning process. For purposes of this article, we identify five critical principles that communities must consider in the design of planning programs aimed at overcoming the obstacles to engagement and reducing vulnerability of marginalized populations:

1. *Strengthen networks through diversity in participation.* Planning initiatives in disadvantaged communities should reflect the composition of their communities to fundamentally address pre-existing inequities (Berke et al. 2002, Grengre 2002, Zaferatos 1998, Sirianni 2007). Building capacity to reduce disaster vulnerability and underlying inequities is beyond the scope of a single individual or organization and requires an inclusive, supportive team of allies to facilitate action.
2. *Co-develop information.* Planning experts and local people should co-develop information to aid local people in defining the most pressing disaster issues and selecting strategies most relevant to them. Communities should be engaged to define study objectives, and collect and analyze information (Innes 1998, Schon 1983). Local people should be empowered to be involved in investigations. Analytical tools should be made available and local people trained to use the tools.
3. *Coaching to build trust and motivate change.* Planners should pursue a coaching role to serve as community change agents. The core aims are to serve as a catalyzing agent to stimulate action, maintain a flexible approach to the unique circumstances in each community as they evolved, translate multiple sources information to action, mediated

conflict, and ensured that all voices be heard ((Dodson, Thomasson and Totten 2002, Emery, Hubbell, Salant 2005, Susskind et al, 1999).

4. *Select strategies that fit local conditions and values.* Disaster vulnerability reduction strategies should be based on a deliberative process among those groups affected by the strategies (Berke, Kartez and Wenger 1993). Strategy formulation enhances understanding among participants, improves the likelihood that solutions are internally consistent with the issues, and enhances prospects for clear guidance to implementation decisions (Berke et al. 2006, Deyle, Chapin and Baker 2008).
5. *Build capacity for implementation and sustainable change.* Create partnerships so that, over time, representatives of disadvantaged groups, community-based organizations, and professional agency staff (e.g., planners and emergency managers) would be committed and capable to carry the work forward. Creating active publics is needed for implementation of plans and, most importantly, for fostering sustainable change in relations with underserved populations (Briggs 2004, Sirianni 2007).

We examine the choices made by the EPD case communities discussed in this article to achieve each principle. Understanding the alternative pathways has important implications for creating disaster plans that matter to disadvantaged people.

Background: Roots of the Emergency Preparedness Demonstration Project

In 2004, MDC and the university initiated a partnership called the Emergency Demonstration (EPD) project with the support of the Federal Emergency Management Agency (FEMA). MDC is a private non-profit organization based in [town, state] that has worked for over four decades on development issues in underserved communities throughout the American south. The university group consisted of a core of faculty investigators (assisted by graduate students in anthropology, public health, and urban planning) with considerable experience in hazard vulnerability analyses and disaster planning who added a research assistance dimension.

Between 2005 and 2008 the MDC/university partnership initiated and completed six community-based demonstration projects aimed at creating disaster plans and taking action to implement prioritized strategies.³ We were well aware of the long history of deep

disappointment in past externally-driven initiatives, especially those associated with university and government researchers, which had failed to produce significant physical development improvements and social programs benefiting distressed communities in the arenas of community development (Reardon 1998), environmental justice (Minkler et al. 2008) and disaster resiliency (Peacock, Morrow and Gladwin 1997). This history prompted the MDC/university partners to pursue a bottom-up, participatory action research approach to disaster planning.⁴

Site Selection, and Data Collection and Analysis

To test the efficacy of our participatory research approach our fieldwork focused on communities that were selected based on the following procedure. Initially, disadvantaged communities within the 2003 Hurricane Isabel impact zone were identified using census data on socio-economic and minority characteristics. The impact zone covered areas that sustained moderate to severe damage extending along the Atlantic Coast from South Carolina to Maine and as far inland as West Virginia.

Next, a preliminary list of communities was developed and reviewed by staff from state divisions of emergency management and FEMA to identify the best candidates based on potential barriers and opportunities to working with such communities, and the commitment and capacity of communities to participate in the demonstration project. Site visits were then conducted by the MDC/university team that included exploratory meetings with a diverse set of local representatives in potential communities, to determine the willingness and ability of the communities to participate.⁵ Six communities were selected from rural and urban areas: Chester

County, PA; Dorchester County, MD; Hampton City, VA; Hampshire County, WV; Hertford County, NC; and Wilmington, DE.

In the beginning, the MDC/university partners decided to initiate on-the-ground work in 2005 with a pilot community (Hertford County, NC). The aim was to initially concentrate planning efforts within a single community to enable a learning process in project design. Team members hoped success in a pilot project would offer lessons to refine work subsequent EDP sites that would lead to wider success, and, over time, produce a wider movement for reform. Planning in Hertford County lasted about 18 months, while the remaining sites were more short-term that lasted approximately 9 to 10 months.

To understand the successes and limitations of our approach we used multiple sources of evidence. Between September 2007 and March 2008 semi-structured interviews were conducted with 30 key informants from the EPD sites. Informants were individuals who were knowledgeable and influential about disaster vulnerability and community development efforts in their respective communities. They included participants on the core EPD planning teams who are representatives from community-based organizations (e.g., churches, neighborhood groups) local government agencies (e.g., emergency management, social services, health, neighborhood planning), unaffiliated residents, and external organizational representatives from state agencies and national humanitarian aid organizations (Citizen Corps, Red Cross, United Way). An interview protocol was used that included questions designed to gauge success (and failure) in recruitment of key participants, internal and external relationship building, coaching, formulation of strategies, and prospects for implementation.

The interviews were supplemented by field notes taken during attendance of community planning meetings by MDC/university staff, and a two-day summit that convened representatives

of all EPD sites in Baltimore during June 2007. The intent of the summit was for local participants and coaches to describe their experiences in working on the EPD projects, exchange ideas about how to improve the EPD process, and learn from each other. In addition, we collected documentary materials that were prepared by core EPD planning teams (memoranda, vulnerability assessment studies, household surveys, and media releases). Content analysis of transcribed interviews and field notes was based on standard coding procedures specified by Miles and Huberman (1994).⁶

Disaster Planning in Socially Vulnerable Communities

The following discussion reviews the experiences of the six community-based EPD projects. The discussion is organized under each of the six core principles for disaster planning in socially vulnerable communities.

1. Strengthen Networks and Diversity in Participation

For planning initiatives to make a difference, marginalized communities should be supported by planners to identify their own scope of work. Collaborative arrangements aimed at strengthen networks should proceed with a holistic perspective, rather than developing recommended actions for a particular group separately.

To achieve this principle meant that the core planning team for each site needed members that represent marginalized stakeholder groups with little or no formal power but with knowledge about local conditions and values, and groups with power to change the status quo. MDC/university partners used a two part strategy that included: recruiting participants to work on the core planning team; and engaging them early-on to increase likelihood of sustained commitment.

Recruit Participants. During the initial phase, each EPD community received a \$15,000 planning grant to cover time of a site coordinator (supplied by a community-based organization active on the core planning team) to support recruitment, and other key planning activities like arranging meetings, assisting in data collection, and disseminating information. To prevent any one group or narrow set of interests from dominating the process, each EDP initiative worked with a coach to formulate a recruitment strategy for engaging a full diversity of interests. MDC provided each local team a recruitment chart with guidance about how to engage those who might not otherwise participate (notably the most marginalized), how key public service provider agencies and voluntary institutions could play a role, and how affected local businesses could be brought into the process (see appendix A).

In some cases, recruitment of EPD participants was facilitated by strong pre-existing networks of people. Hampton City, VA, for instance, initiated an EPD with a lead organization – Hampton City Neighborhood Unit -- that had been operating for nearly 20 years. According to the coach of this site, the Neighborhood Unit had “deep networks that could energize people into action...lots of contacts, lots of trust, and person-to-person relationships.” Because the relationships were highly functioning, the groundwork undertaken in other EPD sites was not necessary in the Hampton City. The recruitment strategy was multi-pronged with potential participants identified during initial meetings, initial invitations issued by email or personal contact, and then follow-up from a long-time staffer in the Neighborhood Office who was a very highly respected in the community.

In contrast, a highly developed network was not present in rural Hertford County, NC. The lead organization in Hertford County -- Roanoke Economic Development, Inc (RECI) – initially relied on a single person who was energetic, very engaged in the process, and immersed

in the subject matter, but was new to the area and did not have a well-developed network of relationships with residents. To assist recruitment of members for the core planning team, the coach and RECI staff member decided to personalize the recruitment process by employing three long-time residents to recruit individuals unaffiliated with a particular group and representatives of community-based service providers (e.g., churches, child care services, and the housing cooperative). After the core planning team approached the county manager, the manager used her influence by personally tasking key representatives of county agencies, notably emergency management, to participate.

Other outreach strategies focused on discovering existing levels of disaster awareness and preparedness among disadvantaged groups, and concerns of these groups about future disasters. Because disadvantaged people often have low rates of participation in public meetings, the City of Hampton and Hertford County core planning teams administered surveys and focus groups aimed at eliciting concerns, and levels of awareness and preparedness of residents. In Dorchester County, when immigrants and people of color did not come to officially sponsored events efforts were made to interview parents of children at Head Start Centers. According to the coach at this site, because these Centers “are great generators of trust...parents were more willing to reveal personal information about themselves and their families.” These experiences revealed how EPD communities were challenged to discover and recruit for a diversity of interests.

Engage Early-on to Sustain Commitment. Each EPD was notified by the MDC/university partners to engage stakeholders early-on and cautioned that their efforts would unravel if they failed to be inclusive, and that the initial planning grant could be withdrawn. For instance, in Wilmington, DE, although there was support to work on the core planning team, attendance in early meetings was almost non-existent. Several key staff of local government and

state agencies from the core planning team did not attend. With prodding by MDC staff, the executive director of West End Neighborhood House stepped in to aid in recruitment of higher-ups in state and local agencies. This person was well-respected in the community. By reaching out personally and offering support to the EDP he legitimized the project in the eyes of his colleagues.

In two other EPDs, county emergency managers had some initial reluctance to buy-in to the project. They felt threatened or at least didn't see the value in participating. In these cases, MDC/university became involved in building trust and relations. Two MDC/university staff had been emergency management practitioners. Once MDC/university staff met these local officials and explained the intent of the EPD, local officials agreed to at least initially participate.

Comments like we became more likely to at least "lend an ear," "our fears were put to rest...that the process would not be used to criticize emergency managers like everyone else was doing after Hurricane Katrina," and that "we are all after the same thing argument" indicated that reluctance and tempers were eased. One emergency manager summed-up the feeling among the initially reluctant EPD sites, stating that the process "could actually make their job easier, rather than harder." Thus, a lesson learned here is the importance of involving the emergency managers very early in the process so that they will be more likely to actively participate.

While MDC/university challenged each EPD community to devise ways to ensure diversity in participation, not all communities achieved this aspiration. In Hampshire County, WV, for instance, engagement was narrower in scope compared to other EPDs. The lead organization emphasized recruitment based on networking among public agency staff rather than grassroots networking. The ultimate group of participants consisted of four to seven staff from various county departments (Office of Emergency Management, Department of Health and

Human Services, Committee on Aging) made up the backbone of the planning team. Members tasked themselves to gather information and select action strategies focused on their definition of disadvantaged populations in the county which centered on the elderly. In Wilmington, DE engagement of local emergencies was limited to only the emergency management, but other key agencies were not engaged.

Table 1 reveals the pattern of results of the determined efforts to enhance participation and strengthen networks among diverse organizations both internal and external to the communities. Attendance lists, meeting notes, and follow up post-plan making interviews were used to identify the groups that were most active and participated in most meetings. Results aimed at participation internal to the EPD sites were successful at five EPD sites, with multiple local government agencies and community-based organizations active in the more successful sites. Hampshire County, however, was dominated by local government agency staff. Residents that were unaffiliated with an organization, elected officials and other local institutions showed mixed results. Participation of external organizations was mixed with local chapters of national non-governmental organizations (NGOs) like United Way and Red Cross participating in the majority of sites (four of six sites), but state agencies were active at only in Dorchester County and Wilmington. Participation by these external NGOs is particularly critical since they provide considerable resources to disaster stricken communities. However, the needs of disadvantaged populations are often overlooked unless outside donors understand the issues and needs before a disaster strikes (Berke, Kartez and Wenger 1993, Graham 2007).

Table 1 here

Overall, the Hertford County EDP has the greatest number of active participants because they had more time relative to other sites to conduct deep penetration in relational and trust

building. As noted, this Hertford County was the pilot site that was engaged for 18 months while other sites were engaged for a six to eight month period. This extra time provided the opportunity for the coach and core planning team to “do things side-by-side which is the way you break down race and other barriers to building trust and establishing respect,” as one local participant noted.

2. Co-develop Information

A second principle entailed local people and expert planning staff to co-develop information. In conducting an assessment of local vulnerabilities, the partners wanted to make sure that they tap into local knowledge so that policy proposals are relevant to those that are supposed to benefit.

Once MDC was assured that the initial organizational and outreach was broadly engaged and the scope of the proposed planning made sense, each EPD community received technical assistance to conduct the next phases of planning that involved diagnosis and discovery, goal setting, strategy selection, and implementation. A range of analysis tools and sources of information were made available including GIS hazards maps, vulnerability assessments, surveys of households, presentation by experts, and best practices for other communities that were promising models for the EPD work (see Table 2 for tools used by each EPD site). The intent was to enable participants to access community-specific information on land use, hazard areas, evacuation routes, and demographic profiles of at-risk population groups. In particular, maps that show hazards and exposed residences provided powerful images that could not be explained in words (Nueman 1998). One core planning team participant in Hertford County stated that the lines delineating hazard zones on maps were effective because they answered the question,

“Where am I?” When coupled with intense community capacity building and empowerment work of coaches (to be discussed), the planning support system exemplified what Berke, Godschalk and Kaiser (2006, p. 55) refer to as a “collaborative process that combines technical information, values, and place-making.”

Table 2 here

University specialists offered GIS mapping and vulnerability assessment databases, and technical assistance in interpretation of maps and data, which were made available to all EPD planning teams that requested this resource (Authors et al. 2008). A vulnerability assessment serves as the basis for developing strategies to reduce the risks from disasters. It entails identification and mapping of hazards and vulnerable people and property, including critical facilities such as hospitals and schools. Specific attention was given to socially vulnerable populations (e.g., elderly, low income households, and people with disabilities) and to map the locations of these populations when possible. Historical and cultural knowledge of people who have lived through disasters and who understand how such disasters make them vulnerable was fed back into the process.

Involving the community in the preparation of the vulnerability assessment helped ensure that the assessment is relevant to those most at risk. One of the most important aspects of the mapping exercise was to bring out stories about how local people were affected by disaster events, and to empower them to revise the maps prepared by experts based on local knowledge and experience. In Hampshire County, WV participants challenged the vulnerability assessment. They pointed out areas not highlighted on the maps where flooding occurred. In particular, one area was characterized by steep slopes and ravines, where narrow, steep creeks flooded during storms that made roads impassable. Some people told of being cut off from work or from

necessities (e.g., medicines). Others talked about how people in the more rural areas were isolated and cut off because of flooding or downed trees. They also explained how the vulnerability map inaccurately indicated the presence of a Hispanic neighborhood in a part of the county prone to flooding. Participants remarked that there were few, if any, Hispanics remained in the neighborhood after an apple orchard shut down as many came to the area to pick apples. During Hertford County, NC planning team meetings, participants were split into three groups to comment on the maps and point out discrepancies in the location of critical facilities, housing, employment centers, and environmental threats. Comments like “that facility is located across the street from where it is shown,” and “that facility no longer exists” reflect the importance of indigenous knowledge.

In contrast, Dorchester County’s experience with the maps was not as successful as Hampshire County and Hertford County. Most participants thought the maps were helpful at framing the issues associated with potential hazards in the area, but that some of the data was outdated or simply not accurate. Staff from the county’s Office of Emergency Management’s (OEM) were vocal critics of the maps. For example, they pointed out that hazardous facility data was not current and the group made numerous corrections immediately once maps were unveiled. In this case, OEM staff felt that they should have been consulted early-on about the maps as they had the more reliable data that was used to revise the maps. According to one planning team member, “Earlier involvement by OEM would have saved the project time, resources, and heartburn.”

Analytical tools were used in a variety other ways to help residents understand the issues and options. The Hampton EPD engaged neighborhood residents to assist with the door-to-door household survey and university specialists assisted with data analysis. A Neighborhood Office

staff member from the City of Hampton observed that, “People really cared a lot about the results as the neighborhood was deeply involved in collecting the data.” The Dorchester County, Hampshire County, Hertford County, and Hampton EPDs drew on presentations from local agency experts (e.g., emergency management, health, social services) and outside experts from universities and state agencies. The presentations elicited many questions that local groups went through together with various attendees piping in when they needed to. Finally, MDC/university partners cataloged promising practices from across the country that were intended to offer guidance to EPD communities about how other places in similar situations dealt with preparedness and mitigation.

3. Coaching to Build Trust and Motivate Change

A critical third principle of the EDP planning is for planners to serve as coaches that serve as community change agents. Coaching for community change is attracting increasing attention from the development and social change fields across the country (Emery, Hubbell and Salant 2005). The practice dates back to the mid-1980s when organizations like MDC began employ planners as coaches to provide community-based technical assistance to increase the pace and success rates of local committees that were reshaping educational and community development reforms (Dodson, Thomasson and Totten 2002, Susskind et al, 1999).⁷ The aim of coaches was to support and catalyze communities to create a vision, set goals, select strategies, and take action that must be sustained well into the future.

The EPD process revealed how well planners serving a coaching role were able to engage and build community capacity based on four core skills previously discussed. First, at all sites coaching stimulated action, or as staff planner indicated that she strived to be a “lightning rods”

for change. Comments about effective coaching by various participants on the core planning teams included, “be persistent,” “push and promote,” and “ask tough questions,” like “Who is missing from this room? What data do we need?” However, these same participants further explained that coaches were adroit in understanding that sustainable change would only come about as long as coaches “...didn’t project a feeling as if we were being evaluated...local people especially disadvantaged folks don’t want to be evaluated,”...“they don’t want to be told that they were doing something wrong.” They needed to “understand that the process was not a threat to them.”

Second, coaches must have an ability to respond to change. Effective coaching at the EPD sites suggests that is not formulaic as successful practitioners understand that there is no set strategy that fits all communities. Each community is unique and requires different approaches to that lead to building capacity and taking action. A flexible approach is needed to work with communities’ (or core planning teams) in light of local concerns, conditions, and capacity.

For example, at one EPD site, the first meeting was held in the basement of the county Office of Emergency Management, but was not well attended. Coaches were told by residents that this location was “frightening” and “insensitive” to marginalized groups. For the marginalized groups, who often hold deep suspicions of law enforcement, coming to this location was a threat. Coaches worked with emergency management staff by offering to meet in the neighborhoods and at culturally safe places (e.g., churches and neighborhood centers). At other sites, coaches recognized that communities varied in organizational capability and thus coaching approaches had to be adapted accordingly. One coach worked in both the City of Hampton, which had a deeply rooted neighborhood organization that was well-staffed and had been working in the community for decades, and Herford County where development

organizations had low capacity and had fewer community connections. In the City of Hampton, the coach's role was to advocate and prod, while in Hertford County it was to provide training and capacity building, which in the coach's words meant "...how to set up meetings, how to organize, to hire local coordinators to assist," and so forth.

Third, effective coaches displayed an ability to ensure that multiple sources of knowledge (grassroots and technical/scientific) are translated to action (Forester 1989, 1999). For example, in one community interviews with members of a core planning team consistently pointed out how the coach was skilled at explaining results of studies including, for example, data derived from automated mapping about location of hazards and vulnerable populations, and household surveys on residents' preparedness levels in the hazardous areas. The coach was considered adept at breaking down the information into digestible chunks so that residents, local emergency management staff, non-governmental service providers, and others could understand the implications of the findings. In several communities, participants indicated that an essential capability in translating knowledge to action was to be wary of "meeting fatigue" and "erosion of interest" by the community. They pointed out that coaches took steps to guard against the emergence of these potential obstacles with engagement techniques that allowed participants to elicit responses to issues raised by the data and brainstorm ideas to improve community disaster preparedness.

Fourth, coaching in all EPD sites strived to ensure that all voices are heard, especially the voices of the underserved. Coaches arranged meetings during the EDP planning process that served as informal get-togethers, learning each others' views and establishing the basis for subsequent independent contact. Or they could focus on a difficult issue, deeply held mistrusts, and disputes that pose obstacles to attend meetings and be part of ongoing deliberations.

In two communities, there was a considerable mistrust between residents and local government emergency management staff at the outset. On the one hand, residents considered staff to be distant, top-down authorities who had little understanding of distressed communities and people of color. Many residents expressed their deep disappointment in prior local government disaster responses that had failed to, for example, effectively communicate emergency warnings, and account for evacuation, sheltering, medical and long-term housing assistance needs of underserved people. On the other hand, staff felt threatened by what they considered to be an intrusive intervention of outsiders (MDC/university partners). They felt that work initiated by outsiders could potentially exclude their organizations' resources and expertise. In response, coaches in these communities focused on getting residents and emergency management staff to attend planning meetings together, and at times would arrange for one-on-one discussions. Helping each participant see the viewpoint of the other, including values, interests, assets and knowledge that each participant could offer, was a central role of each coach, and permitted residents, local government staff, and representatives of the non-government sector to trust the coach as an honest broker and reliable conduit of information. The comment, "the coach pushed the community to cross deep divides," by a planning team member reflects the critical role of the coaches in these two communities. Indeed, coaches acted on behalf of disadvantaged residents and local government agency staff as intermediaries skilled at building trust (Susskind, McKernan and Thomas-Larmer 1999).

However, coaching to get all voices to be heard did not always go smoothly. Despite considerable prodding, a coach in one community was unsuccessful in getting individual residents to participate. Members of the lead planning team were representatives of local government agencies. Consequently, it was geared more to work on formal organizational

networking rather than grassroots organizing. The coach regularly pointed out to the team that they needed residents to be engaged, but members felt that their agencies were best suited to carry the effort and local people were not interested in becoming involved in this type of effort. The coach observed that this community missed the perspectives of some vulnerable populations. Their social networks were constricted to a public administrative perspective. They narrowly viewed disadvantaged as disabled and elderly, but not low income or single parent households. Meeting times were always scheduled during daytime hours which suited agency staff but precluded attendance by residents who worked during the day.

In sum, the competences of the coaches supported informal webs of communication, coordination, and information exchange to strengthened relationships between underserved populations and formal authorities, and identify and gain access to outside resources needed by the community. They did not rely on relations that depend on top-down authority and accountability based on performance. The coaches' role clearly supports the democratic participatory ideals of comprehensibility, authenticity, legitimacy, and truth.⁸

4. Select Strategies that Fit Local Conditions and Values

The fourth key principle centers on a deliberative review process for selecting strategies to reduce local vulnerability. Strategies should be selected not based on a top-down evaluation, but on a process that emphasizes extensive discussion and one-on-one communication among those groups affected by the strategies (Berke, Kartez and Wenger 1993). They should be premised on accurate information, and internally consistent with local values and conditions. In the end, each at risk community should be able to select strategies that it believes would work, given the local political and economic circumstances (Ganapati and Ganapati. 2009).

As noted, each EDP community developed a plan that included a list of prioritized strategies for reducing vulnerability to hazards. Each community was eligible for a \$25,000 grant from MDC/university partners to implement one or more strategies in its plan assuming its plan met certain standards established by the partners. The MDC/university staff reviewed each plan as a blueprint to guide change in each community. In reviewing each plan, MDC/university staff as well as coaches asked several questions: Is the analysis accurate? Do the EPD goals flow logically from the problems identified in the plan? Are strategies internally consistent with goals, and are they politically feasible? Is there a clear implementation action program, including a timeline, identification of those responsible for implementation, resources that are available needed for implementation, and indicators to gauge progress? Few strategies can be implemented by a single entity as they typically require action by multiple organizations from various public and non-government sectors.

The act of negotiating these questions with EPD teams and pushing them to answer with rigor was sometimes contentious. Having worked hard to develop an analysis, create a vision, set goals, select strategies, and establish an action program, EPD teams did not always gain approval of their selected strategies, and sometimes became frustrated when they were challenged about their assumptions, required to do more analysis, or develop clearer indicators about who participated (and who did not) in the decisions. In negotiations that preceded acceptance of the plan and selected strategies, MDC/university staff took great care to avoid being cast as enabling facilitator in some instances and evaluators in other instances.

In Hampton, for example, the coach concluded work by assisting the local planning team in brainstorming options for their information distribution strategy. Next, the team prepared a draft of a grant application, which MDC staff reviewed in person with members of the local

planning team. The draft summarized the goals of the strategy, explained how the selected strategy will achieve the goals, and described the planning phase to implement the strategy. MDC requested more specificity about the types of actions used to implement the strategies, and detail regarding the timeline and organizations responsible for spending grant funds. The planning team continued to develop the project, narrowing the list of options for education and distribution tactics. A month later, the team submitted its final proposal which contained detailed actions to raise awareness and preparedness in Hampton. MDC/university staff recommended approval and FEMA accepted the final application for funding.

Table 3 shows the approved set of strategies for each EDP community. Different communities chose to focus on different mixes of training, shelter, and public outreach initiatives. For example, Dorchester County had the widest array, while Hampton and Wilmington chose to concentrate on a few.

Table 3 here

In sum, the intent was to have strategies selected and refined through extensive, iterative discussion and one-on-one communication. All demonstration sites produced plans that were designed to achieve goals as envisioned by the broader EPD effort, but under terms local people felt they could control. There was a clear recognition that strategies were rooted in numerous sources of local knowledge, as well as professional expertise. Each was part of a larger community vision that various participants commit to collaborate in a variety of ways to ensure implementation.

5. Build Capacity for Implementation and Sustainable Change

EPD projects were designed to catalyze and build local social capacity to act on behalf of disadvantaged residents. The core goal was to create partnerships so that, over time, professional agency staff and civic associations would be committed and capable to carry the work forward. This participatory and asset-based approach used in the EPD sites is critical to creating active publics needed for implementation of plans and, most importantly, for fostering sustainable change in relations with underserved populations (Briggs 2004, Sirianni 2007).

The MDC/university staff believed that the \$25,000 grants created a strong incentive for keeping teams committed during the difficult planning process, especially for the typically low-resourced local offices of emergency management. Thus, the work that teams did together was not speculative as “there was real money on the table,” according to one participant. And there was an immediate return on the time and energy invested during the months spent on planning.

While MDC committed funds to enable implementation, this resource would not facilitate lasting change without a well-developed capacity for such change. The funds were viewed by MDC/university as incentive grants to seed further civic innovation and progress in the reduction of disaster threats, rather than sustain ongoing programs. Several promising activities emerged during the planning stage that widen the circle of allies and increase the likelihood for successful implementation:

- In Hampshire County, two new organizations with no prior experience in disaster planning became actively engaged. One of these organizations, the Committee of Aging, also became a primary partner in the county’s newly established Preparedness Education and Assistance Project (PREAP) which is oriented toward identifying and engaging community organizations that work with target groups. The county also established a new forum for interaction with a Memorandum of Understanding among the county emergency management agency, the Potomac Valley Transportation Authority, and Christ Church of Romney that establishes the church as a secondary shelter.
- In Dorchester County, the Office of Emergency Management and a representative of the Hispanic community collaborated on a Spanish language CERT⁹ training that has been a success that the office is touting it as the first (if not only one) in the state of Maryland.

- In Hampton, the planning process created an opportunity to introduce the new director of Emergency Management to the neighborhoods, and to get to know community people on a more personal level. Even in a highly functioning community like Hampton, relationships must constantly be established, rediscovered, and maintained.
- In Hertford County, the topic of disasters was a vehicle for building new relationships within the community or strengthening existing relationships. Many people who participated already knew each other, and were able to come together as a part of the EPD since they shared a common history and, in some cases, common goals. The process improved the relationships between residents and organizations, particularly between residents and the emergency management director. They had a better understanding of the emergency manager's job and limitations and could become allies in the search for additional resources. A member of the core planning team observed that "We were successful in getting him [the director] to the meetings and after we challenged him to certain things we found out he was doing all he could do because he was a one man team." Another participant commented that originally "there was a perception that emergency management was good for nothing and I think that public perception was a key problem we overcame."

Another activity for building capacity to sustain community work involved creating an expanded learning network of EDP participants. As noted, participants on the EPD planning teams were invited to a summit that was convened in June 2007 by MDC in Baltimore to cross fertilize and learn from each other, and to further ensure that the overall EPD program was the result of an open and inclusive process. Thirty-two people attended the summit, and over 100 people participated in EPD project planning activities at the six sites. The intent of the learning network was to generate broader networking capacity to facilitate sustained innovation and commitment beyond the end date of the EDP.

A key constraint in building capacity to implement plans was the insufficient amount of time devoted to each EPD community. This limitation precluded deeper work in development of trusted partnerships. In Wilmington, for example, there was not enough time to really build any new relationships. At the very best, people were able to place names with faces and to get a sense that there were many groups out there with a stake in reducing vulnerability. In Chester

County, contacts were improved across the three boroughs (Avondale, Downington, and Kennett Square), but there was insufficient time to work out how the strategies in their plan could foster inter-jurisdictional coordination.

Finally, an important part of the EPD process was to leverage and pool resources from a variety of sources to help implement the strategies. In Hampshire County, the coach observed, “No one organization has to do all the work with too few resources. For example, the OEM and the Hampshire Department of Health now talk almost daily.” In Hertford, participants in the local EPD project coordinated with the local emergency management director to apply for a \$8,500 grant from the State of North Carolina to establish a Hertford County Citizen Core Council. Not all communities had equal access to external sources. However, when combined with an inclusive collaborative approach and the asset-based disaster planning process of the EPD, this leveraging enabled groups to achieve together what they could not achieve on their own. In the words of a neighborhood planner, whose views were echoed by many participants, the EDP was an “important catalyst for change.”

Implications for Mending a Broken Contract: Involving Disadvantaged Communities in Disaster Planning

The EPD initiative reported here attempts to address a basic duty of democratic governance that entails upholding a human rights contract to consult the public, particularly those who are marginalized and underserved, and involve them in decisions and plans that will affect them. There has been a long history of broken contracts by institutions charged to protect disadvantaged communities from natural disasters. Our intent was redress prior failures by empowering residents to identify issues to be examined, participate in collection and verification of field data, collaborate in the analysis of the data, and select strategies aimed at resolving the

issues. Our approach is closely aligned with the essence of planning and community development practice wherein good practitioners learn from reflecting on their experience and on the quality of their work with the public (Schon 1983).

In the context of the five principles for building community capacity, we derive several implications (and associated obstacles) from the EPD experiences that can serve to guide similar efforts aimed at the idea that people can be enabled to have the power to renew their communities from within. First, there was a determined effort at each EPD community to enhance participation and strengthen networks among diverse organizations. Although recruitment of EPD participants was made easier when pre-existing social networks were strong and could readily be energized (e.g., Hampton City, VA), the more successful recruitment strategies in all sites required personal contacts that were facilitated by trust and one-on-one relationships.

MDC challenged each EPD community to devise ways to ensure diversity in participation, but not all communities achieved this aspiration. Organizing and building capacity in low-wealth and minority communities has a long history that reveals the difficulties in engaging traditionally disadvantaged people. The EPD planning project made inroads in engagement, but it did not lead to success in all sites. Hertford County, for example, received more assistance from MDC/university staff over a longer period compared to other EDP sites. This resulted in comparatively higher levels of participation. It takes considerable time, staffing and budget to conduct deep penetration in building trust and effective partnerships.

Moreover, local government staff were considered key members of core planning teams. In most sites, staff became more engaged and supportive. Their views changed from pursuing a purely top-down, expert-driven model that assumes disadvantaged people and their community-

based organizations are incapable of helping themselves. They became more willing to share information, attend meetings, and learn from disadvantaged people about the threats they face and potential solutions.

Second, a key principle of the EPD initiative was for staff from MDC/university and core local planning teams to co-develop information to aid local people in defining the most pressing disasters issues and selecting strategies most relevant to them. A range of analysis tools and sources of information were made available to each EPD, but involving the community in the preparation, collection, and analysis of information helped ensure that the assessments were relevant to them. People cared more about the results when they were deeply involved in collecting the data. Experts who were invited to give presentations raised issues and elicited many questions that local groups deliberated together. Vulnerability mapping exercises brought out stories about how people were affected by prior disaster events and how best to reduce future threats.

In some instances, information was not co-developed. At one site, local officials felt that they were not sufficiently consulted early-on about preparing maps that identified hazards and vulnerability community facilities (e.g, Dorchester County, MD), and there was a sense that work initiated by outsiders could potentially exclude local resources and expertise. There was a strong sense that if they had been treated as partners early-on more trustworthy maps would have been prepared as some of the initial mapped hazards data was outdated or simply not accurate.

Third, the EPD initiative used independent coaches to support local organizations in identifying and achieving goals. They were catalytic agents who stimulate action, maintained a flexible approach to the unique circumstances in each community as they evolved, translate multiple sources information to action, mediated conflict, and ensured that all voices be heard,

especially the voices of the underserved. The use of coaches in the EPD communities provided encouragement when teams were struggling or unclear how to proceed. They did not operate as consultants, but provided recommendations for action, asked tough questions, reminded teams of the big picture, and identified resources, both internally and externally.

However, coaching was not always effective. Despite considerable urging, a coach in one community was unable to convince the core planning team to expand the diversity of participants on the team. Consequently, the team was better geared to work on formal organizational networking that deals with local government agencies but this approach did not spill over to grassroots organizing among disadvantaged people.

Fourth, MDC/university staff worked with each local EDP partner in reviewing the efficacy of a range of proposed strategies. Staff asked questions about the accuracy of the information used to define problems and craft solutions, and the internal consistency between goals and strategies. Additional questions were put forward on whether a clear implementation action program was included in each plan. The intent was not to be evaluative, but to have strategies selected and refined through extensive discussion and one-on-one communication. In the end, each EPD community selected a strategy that they felt would work, given their local political and economic circumstances, to reduce their vulnerability to disasters.

Fifth, a number of practices were applied to develop, implement and sustain the disaster vulnerability work of the EDP. One was an inclusive collaborative plan-making process in each local EDP was aimed at widening the circle of allies in order to increase the likelihood for successful implementation of selected strategies. Another practice involved grants to implement selected strategies were used as an incentive to seed further civic innovation and progress in the reduction of disaster threats, rather than sustain ongoing programs. Finally, the EDP process was

designed to leverage and pool resources from a variety of sources to help implement the strategies. No one organization could hope to perform all the work.

A key constraint in building capacity to implement plans was the insufficient amount of time devoted to each EDP community. At five of the EDP sites, participants frequently indicated that the nine to ten month planning process was not sufficient for building new, sustainable partnerships built on mutual interests.

In sum, all of the above supports the idea that people have the power to renew their communities from within (Sirianni 2007). Such grassroots capacity building did stem from a carefully scripted, linear and orderly process. There were innovations and struggles from all groups involved. Community-based participatory planning is not fail safe despite the best efforts of planning practitioners. The disparities between disadvantaged people and the general population in disaster vulnerability and ability to self-govern are deeply entrenched and cannot be undone through a single participatory initiative. To remain vital and capable to meeting needs, a plan and the engagement process must be continuously revisited. The EDP work presented here shows that a team of planners with expertise in community development and disaster planning can serve this function, but only if they are provided with funds and institutional support needed to do the time consuming work.

References

Berke, Philip, Jack Kartez and Dennis Wenger. (1993). Recovery after disasters: Achieving sustainable development mitigation, and equity. *Disasters: The Journal of Disaster Studies and Management*, 17 (2), 93-109.

Berke, Philip. 2006. Natural hazard reduction and sustainable development: A global assessment, Philip Berke, *Journal of Planning Literature*, 9(4), 370-382, 1995.

Berke, Philip and Timothy Beatley. 1997. *After the hurricane: Linking recovery to sustainable development in the Caribbean*. Baltimore: Johns Hopkins University Press.

Berke, Philip, Neil Ericksen, Jan Crawford, and Jenny Dixon. (2002). Planning and indigenous people: Human rights and environmental protection in New Zealand, *Journal of Planning Education and Research*, 22 (2), 115-34.

Berke, Philip, David Godschalk, Edward Kaiser with Daniel Rodriguez. (2006). *Urban land use planning, 5th Edition*. Chicago: University of Illinois Press.

Bourque, Linda, Judith Siegel, Megumi Kano, and Michele Wood. (2006). Weathering the storm: The impact of hurricanes on physical and mental health. *The Annals of the American Academy of Political and Social Science*, 604 (March).

Burby, Raymond. (2003). Making plans that matter: Citizen involvement and government action, *Journal of the American Planning Association*, 69 (1), 33-49.

Briggs, Xavier. (2004). Social capital: Easy beauty or meaningful resource?, *Journal of the American Planning Association*, 70 (2), 151-158.

Copper, John. (2004). *The disadvantaged in community rating system hazard mitigation planning*. Chapel Hill, NC: Department of City and Regional Planning, University of North Carolina.

Cutter, Susan, ed. (2001). *American hazardscapes: The regionalization of hazards and disasters*. Washington, DC: Joseph Henry/National Academy of Sciences Press.

Deyle, Robert, Timothy Chapin, and Earl J. Baker. (2008). An evaluation of the planning is in the platting: An evaluation of Florida's hurricane exposure mitigation planning mandate, *Journal of the American Planning Association*, 74 (3), 370.

Dodson, David, Julie Thomasson, and Leah Totten. (2002). *Building community by design: A resource guide for community change leaders*. Chapel Hill, NC: MDC, Inc.

Emery, Mary, Ken Hubbell, and Priscilla Salant. (2005). Coaching for community and organizational change. Boise, Idaho: Paper presented at the Community Coaching Round Table.

Forester, John. (1989). *Planning in the face of power*. Berkeley, CA: University of California Press.

Forester, John. (1999). *The deliberative practitioner: Emerging participatory planning processes*. Cambridge, MA: MIT Press.

Ganapati, N. Emel and Sukumar Ganapati. 2009. Enabling Participatory Planning after disasters: A case study of the World Bank's housing reconstruction in Turkey, *Journal of the American Planning Association*, 75(1), 41-59.

Godschalk, David, Samuel Brody, and Raymond Burby. (2003). Public participation in natural hazard mitigation policy: Challenges in comprehensive planning, *Journal of Environmental Planning and Management*, 46 (5), 733-754.

Graham, Leigh. (2007). *The Louisiana disaster recovery foundation's (LDRF) equity and inclusion campaign*. New Orleans: LDRF.

Greenwood, Davydd and Morten Levin. (1998). *Introduction to action research: Social research for social change*. Thousand Oaks, CA: Sage Publications.

Grenge, Joe. (2002). Community-based planning as a source of political change: The transit equity movement of Los Angeles' bus riders union, *Journal of the American Planning Association*, 68 (2), 165-178.

Habermas, Jurgen. (1984). *The theory of communicative action*. Boston: Bacon Press.

Innes, Judith. (1995). Planning theory's emerging paradigm: Communicative action and interactive practice. *Journal of Planning Education and Research*, 14 (3), 183-189.

Innes, Judith. (1998). Information in communicative planning. *Journal of the American Planning Association*, 64(1), 52-63.

Innes, Judith and David Booher. (2004). Reframing public participation: strategies for the 21st century. *Planning Theory and Practice* 5, 419-436.

Lindell, Michael and Ronald Perry. (2004). *Communicating environmental risk in multiethnic communities*. Thousand Oaks, CA: Sage Publications.

Maskrey, Andrew. 1994. Disaster mitigation as a crisis paradigm: Reconstruction after the Alto Mayo Earthquake, Peru. In A. Varely (Ed.), *Disasters, Development and Environment* (pp. 109-123). New York: John Wiley & Sons.

Miles, M. and A.M. Huberman. 1994. *Qualitative data analysis: An expanded sourcebook*. Newbury Park, CA: Sage.

Minkler, Meredith, Victoria Breckwich Vásquez , Mansoureh Tajik and Dana Petersen. (2008). Promoting environmental justice through community-based participatory research: The role of community and partnership capacity, *Health & Education Behavior* 35 (1), 199-137.

National Research Council (NRC). (2006). *Facing hazards and disasters: Understanding human dimensions*, Washington, D.C.: National Academy Press, 395 pp.

Neuman, Michael. (1998). Does planning need the plan? *Journal of the American Planning Association* 64 (2), 208-221.

Oliver-Smith, Anthony. 1991. Successes and failures in post-disaster resettlement. *Disasters*, 15(1), 12-23.

Peacock, Walter, Betty Morrow, and Hugh Gladwin. (1997). *Hurricane Andrew: Ethnicity, gender, and the sociology of disasters*. London: Routledge.

Peacock, Walter, Howard Kunreuther, William Hooke, Susan Cutter, and Stephanie Change, and Philip Berke. 2008. Toward a resiliency and vulnerability network. Working Paper. College Station, TX: Hazard Reduction and Recovery Center, Texas A&M University.

Perry, R.W. and M.K. Lindell. 1991. "The effects of ethnicity on evacuation decision making." *International Journal of Mass Emergencies and Disasters* 9, 47-68.

Reardon, Kenneth. (1998). Enhancing the capacity of community-based organizations in East St. Louis. *Journal of Planning Education and Research*, 17 (4), 323-333.

Schon, D.A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books, Inc.

Sirianni, Carmen. (2007). Neighborhood planning as collaborative democratic design. *Journal of the American Planning Association*, 73 (4), 373-387.

Susskind, Larry, McKearnan, and J. Thomas-Learner. (1999). *The consensus building handbook*. Thousand Oaks, CA: Sage.

Zaferatos, Nicholas. (1998). Planning the native American tribal community: Understanding the basis of power controlling the reservation territory, *Journal of the American Planning Association* 64 (4), 395-410.

Table 1: Most Active Participants on the Emergency Planning Team (EPT)

Participants	Chester Co, PA	Dorchester Co, MD	Hampton City, VA	Hampshire Co, WV	Hertford Co, NC	Wilmington, DE
Internal to Community						
<i>Local Gov't Agencies</i>						
Emergency man.	X	X	X	X	X	X
Elderly services				X	X	X
Health	X			X	X	
Social services		X	X	X	X	
Coop extension	X	X	X		X	
Police		X			X	
Neigh-hood dev	X		X		X	
Housing	X		X			
Planning		X				
<i>Community-based Organizations</i>						
Econ dev			X		X	X
Emergency						X
Church	X	X	X		X	X
Health care			X		X	X
Neigh-hood group	X	X	X		X	X
Child care					X	
Housing					X	X
<i>Business reps</i>						
Small business assoc.						
Individual business					X	
<i>Unaffiliated residents</i>	X	X			X	
<i>Elected Officials</i>			X		X	
<i>Other Local Institutions</i>						
Educational			X		X	
Hospital					X	X
External to Community						
<i>State agencies</i>						
Emergency man.						X
Social services						X
Health		X				
<i>NGOs</i>	X	X	X			X

Table 2: Techniques used to Provide Technical Assistance

Techniques	Chester Co, PA	Dorchester Co, DE	Hampton City, VA	Hampshire Co, WV	Hertford Co, NC	Wilmington, DE
Maps of hazard areas	X	X	X	X	X	X
Vulnerability assessment	X	X	X	X	X	X
Review of promising practices	X	X			X	X
Presentation by experts		X	X	X	X	
Survey design	X		X			

Table 3: EDP Projects Selected for Implementation

Chester Co, PA	Dorchester Co, MD	Hampton City, VA	Hampshire Co, WV	Hertford Co, NC	Wilmington, DE
-Train-the-Trainer course under “Be Red Cross Ready”	-Multi lingual brochures	-Neighborhood based edu campaign	-PREAP project*	-CERT training**	-Fun Days school kit for emergencies
-Trained residents supported to train	-Family disaster kits	-Post hoc campaign evaluation	-Establish volunteer reception centers	-Mobilze CBOs to engage in disaster planning	-Senior edu sessions
	-4-H Club training in schools	-Brochures for household preparedness	-Increase knowledge about incident man system	-Emergency aid sheltering project	-Magnets to raise awareness
	-CERT training**		-CERT training**	-County gov’t adopts resolution	
	-Reverse 911 System			-Magnets to raise awareness	
	-Distribute weather radios to trusted residents				
	-Media engagement program				

*Preparedness Education and Assistance Project (PEAP) involves identifying and engaging community organizations that work with disadvantaged and assists them through training, networking and coordinating.

**The Community Emergency Response Team (CERT) program is sponsored by Citizens Corps which helps train people to be better prepared to respond to emergency. The CERT course is taught in the community by a trained team of first responders who have completed a CERT Train-the-Trainer course conducted by their state training office for emergency management, or FEMA’s Emergency Management Institute (<http://www.citizencorps.gov/programs/cert.shtm>, accessed 8/7/08).

Appendix A: Matrix for Ensuring a Diverse Taskforce EPT Recruitment Chart

The EPT should have representation from:

1. The Local Emergency Management Coordinator / Director.
2. Disadvantaged and vulnerable communities in the identified community. The majority of team members should be from and represent institutions connected to disadvantaged communities. (It is important that a good number of team members are themselves people within these communities, not just working with institutions from these communities.)
3. Different parts of the county affected by Isabel (or other disasters). This should overlap with #2 above. In other words, people should not be on the committee just because they live in a particular area but only if they are also representing an economically disadvantaged community.
4. Key institutions or agencies that play a role in disaster awareness and preparedness and recovery. At a minimum, this should include: school system, hospital or health center, other county agencies (e.g., fire, EMS), homeless shelter.
5. Key voluntary institutions that are trusted in the community and have or could play a role in disaster awareness and preparedness and recovery (e.g., churches, homeless shelters).

Name	Community/Area	Race	Gender	Institutional Affiliation	Institution or Agency	Other Networks	Skills

Endnotes

¹ In a study of 60 randomly selected local hazard mitigation plans among a total of 202 communities that had received flood insurance premium reduction credit for plans under FEMA's Community Rating System, Cooper (2004) found that plans had weak fact bases on the vulnerability of disadvantaged populations and give almost no attention to strategies aimed at reducing their vulnerability. Reasons for such weak plans is the deep mistrust harbored among disadvantaged populations toward formal planning authorities like local health, emergency management and planning departments and the low level of understanding of the issues, conditions, and capacities of disadvantaged populations by these formal planning authorities. As a consequence of inadequate planning aimed at the conditions and capabilities of disadvantaged people, disadvantaged populations have been consistently found to have lower rates of pre-impact interventions (hazard mitigation, emergency preparedness, and recovery preparedness), or have lower rates of post-impact emergency and disaster recovery responses.

In a study of 90 hazard mitigation in three states, Cooper (2004) found that plans have weak fact bases on the vulnerability of highly socially vulnerable populations and give almost no attention to strategies aimed at reducing their vulnerability.

² Socially vulnerable populations often have greater rates of hazard zone occupancy, live and work in less hazard resistant structures within those zones (e.g., manufactured housing), have lower rates of pre-impact interventions (hazard mitigation, emergency preparedness, and recovery preparedness), or have lower rates of post-impact emergency and disaster recovery responses (NRC 2006, chs. 2-3). Thus, these population groups are more likely to experience casualties, property damage, economic impacts, or adverse political impacts (NRC 2006, chs. 2-3).

³ See, for example, Greenwood and Levin (1998) for a comprehensive review of participatory action research, and Peapck, Morrow, and Gladwin (1997) for the application of this approach to disaster recovery in socially vulnerable communities after Hurricane Andrew struck South Florida.

⁴ See, for example, Greenwood and Levin (1998) for a comprehensive review of participatory action research, and Peapck, Morrow, and Gladwin (1997) for the application of this approach to disaster recovery in socially vulnerable communities after Hurricane Andrew struck South Florida.

⁵ The criteria for assessing local interest and capacity for achieving project goals will include: a sufficient number of representatives of key constituencies that are committed to program goals and open to learning; at least one community-based organization willing and able to provide leadership to achieving program goals; a willingness among local partners to promote the meaningful inclusion of disadvantaged citizens in the decision-making process; and a willingness to invest local resources, however modest, to achieve program goals.

⁶ Themes were developed using both deductive and inductive coding procedures (Miles and Huberman 1994), such that some coding categories were created in advance based on the questions included in the protocol, and others were formulated based on individual responses and comments made during planning meetings and the summit. Because the emphasis was on capturing the range of perspectives, there was no attempt to weight one perspective over another. It was noted when a response arose from a single informant or participant during a meeting, or was common across multiple informants and participants of meetings.

⁷ By 2006, coaches in over 220 communities have worked with local leaders and social change organizations in communities throughout the U.S. (Emery, Hubbell and Salant 2005).

⁸ The ideals are clearly revealed by Sirianni's (2007) penetrating analysis of empowerment in neighborhood planning, and aligned with several critical theorists (Forester 1989, Habermas 1984, Innes 1995).

⁹ The Community Emergency Response Team (CERT) program is sponsored by Citizens Corps which helps train people to be better prepared to respond to emergency. The CERT course is taught in the community by a trained team of first responders who have completed a CERT Train-the-Trainer course conducted by their state training office for emergency management, or FEMA's Emergency Management Institute (<http://www.citizencorps.gov/programs/cert.shtm>, accessed 8/7/08).