Resilience, integrated development and family planning: building long-term solutions

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Abstract: For the many individuals and communities experiencing natural disasters and environmental degradation, building resilience means becoming more proficient at anticipating, preventing, recovering, and rebuilding following negative shocks and stresses. Development practitioners have been working to build this proficiency in vulnerable communities around the world for several decades. This article first examines the meaning of resilience as a component of responding to disasters and some of the key components of building resilience. It then summarises approaches to resilience developed by the Rockefeller and Packard Foundations, the Intergovernmental Panel on Climate Change, USAID and DFID, which show how family planning services can contribute to resilience. Next, it gives some examples of how family planning has been integrated into some current environment and development programmes. Finally, it describes how these integrated programmes have succeeded in helping communities to diversify livelihoods, bolster community engagement and resilience, build new governance structures, and position women as agents of change. © 2014 Reproductive Health Matters

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The concept of resilience has been used in many fields, e.g. in psychology (individual resilience, particularly among children in times of trauma), engineering (structural resilience of bridges for example), security (i.e. ways to manage and plan for political and economic disruptions or outbreaks of conflict), and ecology (the fortitude of natural systems to rebound when disruptions inhibit their functioning). 1

Today, we are witnessing an expanding interest in the concept of resilience and its application from the international development and climate change communities. 1–5 The Rockefeller Foundation, for example, is interested in systems-related ways of building resilience:

“Given that building resilience is an interdisciplinary, cross-initiative objective at the Foundation, we continue to push our thinking on how “resilience thinking” can be put into practice to improve people’s well-being. This often requires a systems perspective. Crises and shocks present at varied levels of scale and duration and often have interlinking economic, environmental, political, and social dimensions. Resilience building as the Foundation describes it – increasing the capacity of an individual, community or institution to survive, adapt, and grow in the face of acute crises and chronic stresses – is an activity that requires a multifaceted, interdisciplinary strategy and a systems view to grasp the interconnected and cross-sectoral nature of particularly “wicked” problems like chronic poverty and global warming.” (p.2) 1

In a similar vein, in a 2012 report on managing the risks of extreme events and disasters, the Intergovernmental Panel on Climate Change (IPCC) defines resilience as:

“the ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner.” (p.3) 6

But what does resilience mean, in practical terms, and what can be done to cultivate it? This article: 1) examines the meaning of resilience as a component of responding to and overcoming disasters and stresses; 2) gives examples of how development programmes are supporting countries and communities to plan for disasters, adapt
to the consequences and transform their policies and programmes; 3) discusses some key resilience principles; 4) gives examples of how family planning has been integrated into environment and development programmes successfully in support of resilience; and 5) describes how these programmes have succeeded in diversifying livelihoods, bolstering community engagement and resilience, building new governance structures, and positioning women as agents of change.

What resilience means

Programmes based on the concept of resilience aim to address environmental shocks, e.g. from flooding, tornadoes and earthquakes, and support rebuilding work following such shocks. They require short- and longer-terms inputs of finance, planning, materials and resources, and a wide range of expertise, and are likely to involve both local and national government and whole communities. The extent of exposure to risk and the extent of the vulnerability of affected populations and geographical areas are key determinants of the impact experienced when a disaster hits.6

The complexity of the transformation efforts required following a disaster is one of the reasons why programmatic plans for building resilience need to be evidence-based and specific to both the extent and type of risk and the populations likely to experience them. Post-disaster recovery and reconstruction provide an opportunity for reducing disaster risk and improving adaptive capacity. However, the IPCC says that an emphasis on rapidly rebuilding houses, reconstructing infrastructure, and rehabilitating livelihoods often leads to recovering in ways that recreate or even increase existing vulnerabilities, when in fact what they call transformative longer-term planning and policy changes for enhancing resilience and sustainable development are what is required.6

Donors and other organizations are increasingly using a resilience framework for funding humanitarian and development programmes. Indeed, as Misha Hussain has noted:

“The term [resilience] has assumed such political and financial clout, whether you’re working in family planning or disaster management, it seems as if every funding proposal, every program, every result has to be seen to be contributing to resilience.”7

Such donors include the UK Department for International Development (DFID), World Bank, United Nations Office for Disaster Risk Reduction, World Food Programme, Swiss Agency for Development and Cooperation, US Agency for International Development (USAID), and the former AusAID.8 This is not just a reflection of donor whims – increasingly resilience is being treated as a development approach that encourages long-term planning of all kinds.

For example, in a November 2011 report, DFID describes disaster resilience as “a new and vital component of humanitarian and development work”, in response to the fact that in 2010 alone, natural disasters affected more than 200 million people, killing nearly 270,000 and causing US $110 billion in damages. Then 2011 saw the first famine of the 21st century in parts of the Horn of Africa and multiple earthquakes, tsunamis and other natural disasters across the world. Given a World Bank prediction that the frequency and intensity of disasters will continue to increase over the coming decades, DFID developed a UK humanitarian policy, entitled Saving lives, preventing suffering and building resilience, which:

“…includes commitments to embed resilience-building in all DFID country programmes by 2015, integrate resilience into our work on climate change and conflict prevention, and improve the coherence of our development and humanitarian work.”8

Key resilience principles

A number of key resilience principles have emerged to inform the building of resilience. These principles include focusing on social justice and equity; encouraging adaptive and continual learning; building effective governance mechanisms and institutions; making interventions specific to the local context; promoting local and national ownership; and fostering strategic and long-term engagement with key stakeholders, including community members and leaders.1,3,8–10

In addition, there are three operating principles that, in my estimation, are strongly associated with building resilience but are not always observed in other approaches. The first is what I call the inter-relatedness of systems. This principle recognizes that there are different types of threats: “shocks” – which are sudden events, such as disease outbreaks, floods, landslides, droughts, or outbreaks of violence that affect the vulnerability of the system and its components, and “stresses” – which are longer-term...
trends, such as those arising from natural resource degradation, urbanization, demographic changes, and climate change.*

In building resilience, there must be a focus on the interconnectivity of ecological and human systems so as to emphasize that shocks occur in multiple spheres and across various scales. These shocks are likely to increase, for example, when the physical effects of climate change are geographically concentrated, leading to overlapping risks at the local level. At the same time, they require responses at different spatial and temporal levels of the response system – i.e., the individual, household and community level – but they also require long-term planning to address the stresses that contribute to underlying vulnerabilities.

The second resilience-building principle is a focus on adaptive capacities, that is the ability of individuals in a community to deal with shocks, based on levels of exposure (the magnitude and frequency of shocks or degree of stress) and levels of sensitivity (the degree to which a system or actor is affected). The adaptive capacity of individuals, communities, regions, governments, organizations and institutions is determined by their ability to adjust, moderate the damage, take advantage of opportunities and cope with the consequences. In these and other similar contexts around the world, women's more limited mobility, skills sets and social status exacerbate their sensitivity to shocks. Thus, for example, during the 2004 Indian Ocean tsunami, women accounted for up to 80% of the dead, and during the 1991 Bangladesh cyclone, death rates among women were almost four times higher than those among men. Hence, some organizations focus on gender equality and women's empowerment as important components for building resilience, notably USAID and the UN Development Programme (UNDP).

The Rockefeller Foundation describes developing adaptive capacity this way:

"Adaptive capacity or adaptability… is not just adaptation – change – in response to conditions. It is the ability of systems – households, people, communities, ecosystems, nations – to generate new ways of operating, new systemic relationships. If we consider that parts or connections in systems fail or become untenable, adaptive capacity is a key determiner of resilience. Hence in complex adaptive systems, resilience is best defined as the ability to withstand, recover from, and reorganize in response to crises."

The third resilience principle is the encouragement of a dynamic process of innovation and transformation. This approach to “learning as you go” is a cornerstone of resilience programming and allows for greater inclusion of innovations and receptivity to emerging needs. UNDP discusses its resilience strategy as one that empowers communities and systems with knowledge and promotes a culture of inclusive and participatory learning, reflecting and acting. It builds organizational capacity, strengthens productive feedback systems, and builds or enhances collective problem-solving skills.

"In everyday usage, ‘capacity’ and ‘coping capacity’ often mean the same as ‘resilience’. A focus on resilience means putting greater emphasis on what communities can do for themselves and how to strengthen their capacities, rather than concentrating on their vulnerability to disaster or their needs in an emergency."

**Integrating family planning into environment and development programmes**

Not surprisingly, improving health and well-being are central aspects of increasing capacity and therefore resilience. In this regard, since the early 1990s, a number of environment and development programmes have included various health services. Most commonly they have combined environmental and conservation efforts, family planning, gender and empowerment programming, and other primary health care services for under-served communities, especially where population pressures have been increasing vulnerability and leading to unsustainable use of natural resources and food insecurity.

In June 2000, for example, the Packard Foundation launched a population and environment (PE) initiative that funded integrated conservation and family planning programmes at the community level within selected areas of high biodiversity, and supported leadership development

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*There is robust evidence, for example, that rapid urbanization and the growth of megacities, especially in developing countries, have led to the emergence of highly vulnerable urban communities, particularly through informal settlements and inadequate land management."
and increased awareness of population–environment linkages, with three main objectives:

- improve the quality of life in focal areas by improving reproductive health, natural resource management and options for alternative economic livelihoods;
- increase collaboration and leadership on interdisciplinary topics;
- use mass media and targeted campaigns to increase the public and policymakers’ awareness of the linkages and solutions.

In 2002 and subsequent years, USAID initiated a Population-Health-Environment (PHE) programme in which they allocated funding for family planning/reproductive health in areas where “population growth threatened biodiversity or endangered species”. They worked with the Packard and Summit Foundations and the Critical Ecosystem Protection Fund, focusing on biodiversity hotspots and the communities living in and around them. Reviews in 2005\(^\text{12}\) and 2007\(^\text{13}\) of some 30+ such joint projects found the following benefits:

- three major advantages to family planning efforts: greater access to men, greater access to adolescent boys, and positive changes in communities’ perceptions of women and in women’s self-perception when they had access to and control of money and credit;
- benefits when family planning was packaged with the quickly perceived effects of health interventions, such as immunization and improved water quality; and
- value added to environment/conservation efforts via greater involvement of women and adolescents of both sexes in activities, and an entry point whereby integrated projects could quickly and visibly respond to the priority demands of the community (often health needs) and gain their trust.

Operations research in the Philippines, published in 2008, tested the effectiveness of synergies between reproductive health, natural resource management and food security programmes.\(^\text{14}\) The research demonstrated that the communities where an integrated approach was used were more resilient, e.g. in terms of better health outcomes, coastal resource management and food security, than communities without an integrated approach.

A more recent analysis published in 2013 by the development NGO FHI360 demonstrated that integrating voluntary family planning into broader development programmes builds community self-reliance, empowerment and overall well-being – the very characteristics identified as key to resilience. The analysis assessed several models for integrating family planning services and referrals into non-health programmes, including microfinance, agricultural and environmental programmes. Furthermore, the study found that many of FHI360’s development partners’ existing infrastructure, community relationships and systems of delivering services provided a solid base on which to add family planning services.\(^\text{15}\)

**Integrated development: how does family planning build resilience?**

International and local development and conservation groups that are implementing these programmes have determined that an integrated approach helps to build a solid base for communities to meet their most pressing needs and preserve their future. This includes helping women and couples meet their fertility desires and preserve the environment that they raise their families in and depend upon for their livelihoods. Various researchers have determined that rights-based, voluntary family planning can improve individual and community-level assets, capacity, flexibility and mobility,\(^\text{16–21}\) thereby improving resilience and adaptive capacity, especially among women.

Family planning is known to improve adaptive capacities at the individual and household level in several ways. First, by helping women and families determine their desired family size, family planning allows them to plan for emergencies, create safety nets and evacuate and migrate more safely and easily.\(^\text{22–24}\) Second, family planning improves maternal health outcomes by reducing too closely spaced, high-risk births and decreasing domestic workloads. Third, improved climate change adaptability can come from a woman’s increased perception of self-efficacy and having control over familial, socioeconomic and psychological spheres.\(^\text{19–21}\) For example, in a deconstruction of disaster resilience, Thurairajah et al found that having a say in household decisions, including reproductive health decisions, empowered women during disaster recovery.\(^\text{20}\)

Women have been able to achieve improved resilience through better health and education, become more flexible in their adaptive strategies, gain greater access to higher wage-earning
work and greater participation in climate change response efforts and environmental stewardship. The broader goal is then that both individuals and households become more resilient to environmental fluctuations and climate change events, that women can advance their economic and social standing and feelings of self-efficacy and empowerment, and thereby improve adaptability to climate change as well as the quality of climate change responses.

This approach also helps build trust with community members because it usually addresses issues they consider important, such as health services, thus providing an entry point that otherwise might be difficult to secure. Community members come to believe in this population-health-environment (PHE) approach, and they work hard to sustain the programme after outside funding stops.

Policymakers and local NGOs, in turn, support the fact that the integrated approach addresses core community needs, poverty alleviation, disaster mitigation and food security. The bottom-up approach of PHE also helps to build grassroots movements, which can have lasting effects, e.g. greater community cohesion, that contribute to the concepts of agency and empowerment, which are so important to resilience.

Building long-term solutions through family planning and PHE

Resilience building and integrated PHE programmes share similar attributes: they both emphasize improving access to external resources; ensuring local ownership and control of assets; meeting basic community needs; and improving adaptive capacities. Based on the experiences of integrated PHE programmes, there are four critical pathways where family planning can be incorporated into resilience building activities, as follows:

• Diversifying livelihoods

One of the key characteristics of resilience programming is “diversifying for preparedness” 3,11 Integrated PHE programmes contribute to this vision by linking family planning to livelihood diversification and preparation for uncertainty and change. This approach is evident in the PHE work of the conservation group Blue Ventures, a leader in the PHE community, 25 which works with remote, semi-nomadic communities along Madagascar’s southwestern coast. Having established a locally managed marine area, they later added a health and family planning component to their work in response to local demand. Through its conservation and health programmes, Blue Ventures now provides PHE services and information to community members, and training and workshops for peer educators, all of which support livelihood diversification (through seaweed and sea cucumber farming, for instance, allowing octopus stocks to regenerate) and better health outcomes through better access to health staff and services. 26 When Cyclone Haruna hit the area in 2013, Blue Ventures was able to deliver emergency aid when no one else could – a fact that Medical Director Dr Vik Mohan attributes not only to Blue Ventures’ infrastructure, but to the trust it has built with community members. 27

• Bolstering community engagement and resilience

The importance of community engagement and the involvement of a diversity of actors have been noted as key components to resilience programming: diversity in the groups performing different functions in a community or an ecosystem; in the availability of economic opportunities; in the voices included in a resilience-building policy and programme processes; in partnerships within communities; in the natural resources on which communities may rely; and in planning, response and recovery activities. 3 This is often reflected in community involvement and the appropriation of local knowledge in a resilience-building project and in situations where communities enjoy ownership of natural resources and have a voice in relevant policy processes.

Pathfinder International, with a number of partners, is implementing an integrated PHE approach in the Health of People and Environment in the Lake Victoria Basin Project in Kenya and Uganda. 28 This project mirrors resilience approaches in that it focuses on community engagement in all aspects of programme design, including implementation and assessment; data collection; participatory activities that are relevant to addressing local behaviours and beliefs; and ongoing coordination at the community level by conservation and health groups to maximize the impact of the activities.
• Building new governance structures

Bene et al note that effective governance institutions should be decentralized, flexible and in touch with local realities; facilitate system-wide learning; and perform other specialized functions, such as translating scientific data on key trends into actionable guidance for policymakers, e.g. on climate change and deforestation. Integrated PHE programming can aid in these goals in a number of ways.

In the Philippines, Save the Children established a successful partnership with the local government units in the municipality of Concepcion to ensure that integrated PHE programming would be mainstreamed and sustained within local government activities after their involvement ended. Concepcion is located in Iloilo province, Western Visayas region. The municipality has 25 barangays (local districts/wards), 11 of which are located on small islands. In 2000, Concepcion ranked as the poorest municipality in Iloilo. Surveys indicated that 5,598 households (87% of households in the municipality) lived in poverty. Save the Children’s People and Environment Co-Existence Development Project (PESCO-Dev) aimed to improve the health of families and communities by addressing population growth and coastal resource degradation. The project was premised on the idea that couples who have an unmet need for contraception are likely to take action to address their needs if reproductive health services are available to them and if they understand the links between growing population, the local environment and their quality of life.

After Save the Children and the municipal government identified the barangays to work with and agreed on the general goals of improving reproductive health and coastal resource management, they then built partnerships with the barangays themselves. Getting the commitment of the barangays happened in two ways. First, Save the Children carried out workshops with barangay leaders that strengthened their skills in mobilizing community members, development planning and project decision-making. Second, Save the Children continued working directly with municipal leaders so that integrated PHE plans would get budgetary and policy support and be aligned with the annual municipal development plan.

The result was that both levels of local government—the barangays and the municipality—held each other accountable, creating mutual and sustained support and commitment. “It was the mayor and key municipal staff and not Save the Children who made sure the barangay local government unit understood the project and supported the partnership,” Rene Sobremonte, the municipal planning development coordinator, told the Population Reference Bureau. Save the Children staff have indicated that these collaborative structures continue today, even after the PHE programme has ended.

There have been other kinds of approaches to influencing governance mechanisms too. In 2001, PATH Foundation Philippines, Inc. (PFPI) launched the Integrated Population and Coastal Resources Management (IPOPCORM) PHE project to tackle similar vulnerabilities among Filipino coastal communities: rapidly shrinking fish stocks, high levels of poverty, and a range of poor health outcomes. Rather than provide assistance directly to communities, IPOPCORM partnered with existing NGOs and local resource user groups to build resilience through the provision of technical, financial and planning assistance in support of family planning, conservation and biodiversity goals.

In 2010, PFPI assessed IPOPCORM’s impact in Palawan, one of the island municipalities participating in the project. The study compared pre-project data from 2001 with post-project data in 2007 to determine the performance of three programmes: one targeting just reproductive health, a second targeting just coastal resource management, and a third targeting both in an integrated manner. Overall results indicated that there were better reproductive health and environmental outcomes at the integrated programme sites.

PFPI is now working to facilitate the development of “PHE councils” through municipal ordinances as a key part of a holistic approach to development, environmental conservation, climate change adaption and disaster risk reduction objectives. In the province of Leyte, the municipality of Hindang has created such an ordinance and notes the “Municipal Multi-Sectoral Population Health Environment (PHE) Council”, as it is called, will “integrate the PHE approach into the Municipality’s annual, short, medium and long-term development plans and programmes and appropriating funds thereof.”

Such PHE councils and additional governance structures have been effective in linking family planning to overall community well-being in a policy environment that is not generally receptive to family planning. They demonstrate the ways
that an integrated approach can help position family planning as central to development and are well positioned to build community resilience in the communities where PHE is already working.

- **Positioning women as agents of change**

Researchers note that a high degree of social and economic equity is important for resilience. Otherwise, as observed in the aftermath of the 1991 Bangladesh cyclone and 2004 Indian Ocean tsunami, risk is distributed unevenly. PHE programmes often distinguish themselves by the involvement of women in environment programming. A qualitative study conducted in Ethiopia by Population Action International indicated that people perceived family planning as a key tool for strengthening climate change adaptation.24

Because of the particular needs of women and children, study subjects noted that the number of children in a household was a crucial predictor of the household’s capacity to support itself during economic and environmental hardships. Overall, participants stated that smaller families were best positioned to overcome climate change-related challenges, as they were better able to plan and save and, when necessary, migrate, and their children were more likely to survive in transit.24

Similarly, in Ethiopia’s Guraghe zone, the Guraghe People’s Self-Help Development Organization (GPSDO) has been implementing a PHE project since 2008 which integrates environmental conservation and livelihood activities into the organization’s reproductive health education and community-based family planning programme. The programme connects GPSDO volunteer community health workers with health extension workers and development agents to deliver integrated messages and services in five woredas (districts). GPSDO also works with youth clubs and women’s groups on livelihood and conservation activities as well as raising awareness of reproductive health.

In the evaluation of the programme, 962 married women of reproductive age were interviewed about family planning and fertility management from one woreda where GPSDO implements its PHE programme and one woreda where they implement a vertical, family planning-only programme. Women in the PHE woreda were over four times more likely to use contraception during the study period than women in the non-PHE woreda. Women also had greater access to cash, as a significant number had more control over income-generating resources, and there were better value-added outcomes, such as a higher percentage of households using energy-saving stoves and more diverse and targeted income-generating activities working towards environmental and food security outcomes.33

**Conclusions**

The popularity of the resilience approach as a response to both shocks and stresses, and to increase systems resilience and adaptability of individuals and communities, provides an opening to demonstrate how family planning as part of broader environment and development programmes contributes to well-being. This paper has argued that integrated projects such as these present unique opportunities to strengthen community resilience through risk reduction, livelihood diversification, creating community involvement and trust, improving governance structures, and strengthening women’s involvement in decision-making and positioning them as agents of change. For communities, and women in particular, these programmes:

- empower women to have a greater role in the economic and political life of their communities,
- incorporate feedback from all segments of society to ensure participatory planning,
- strengthen social cohesion that underpins community resilience to disasters, conflict and other shocks, and
- introduce participatory ways to manage gender and social/power dimensions.

With the increasing frequency of short-term shocks such as natural disasters, outbreaks of conflict and food crises, and the long-term incremental threats from stresses arising from climate change and environmental depletion, development efforts must increase the ability of communities to manage, plan for and recover from major and life-threatening disruptions and destruction. Capitalizing on opportunities to integrate family planning into resilience programming, through integrated programmes such as those combining population, health and environment, offers an opportunity to package together a number of long-term, resilience-based solutions, increasing the effectiveness of each approach.
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Résumé

Pour les nombreux individus et communautés connaissant des catastrophes naturelles et une détérioration de l’environnement, accroître la résilience signifie renforcer la capacité d’anticiper, de prévenir, de récupérer et de reconstruire après des chocs et des tensions négatives. Depuis plusieurs décennies, les praticiens du développement s’emploient à renforcer ces aptitudes dans les communautés vulnérables autour du monde. Cet article examine d’abord le sens de la résilience comme composante de la réponse aux catastrophes et certains des éléments clés du renforcement de la résilience. Il résume ensuite les approches à la résilience élaborées par les Fondations Rockefeller et Packard, le Groupe intergouvernemental d’experts sur l’évolution du climat, USAID et le DFID, qui montrent comment les services de planification familiale peuvent contribuer à la résilience. Puis il donne quelques exemples de l’intégration de la planification familiale dans des programmes actuels de développement et de protection de l’environnement. Enfin, il décrit comment ces programmes intégrés ont réussi à aider les communautés à diversifier leurs moyens de subsistance, stimuler leur participation et leur résilience, consolider les structures gouvernementales et positionner les femmes comme agents du changement.

Resumen

Para el gran número de personas y comunidades que experimentan peligros naturales y degradación ambiental, desarrollar capacidad de recuperación significa adquirir más competencia para prever, prevenir, recuperarse y reconstruir tras negativos shocks y estrés. Profesionales del área de desarrollo llevan varias décadas trabajando para desarrollar esta competencia en comunidades vulnerables del mundo. Este artículo primero examina el significado de capacidad de recuperación como un componente de responder a los desastres y algunos de los componentes clave de desarrollar capacidad de recuperación. Luego resume las estrategias para desarrollar capacidad de recuperación formuladas por las Fundaciones Rockefeller y Packard, el Grupo Intergubernamental de Expertos sobre el Cambio Climático, USAID y DFID, que muestran cómo los servicios de planificación familiar pueden contribuir a la capacidad de recuperación. A continuación, da ejemplos de cómo la planificación familiar ha sido integrada en algunos programas actuales de medio ambiente y desarrollo. Por último, describe cómo estos programas integrados han logrado ayudar a las comunidades a diversificar sus medios de sustento, incrementar la participación y capacidad de recuperación comunitaria, construir nuevas estructuras de gobernanza y posicionar a las mujeres como agentes de cambio.

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