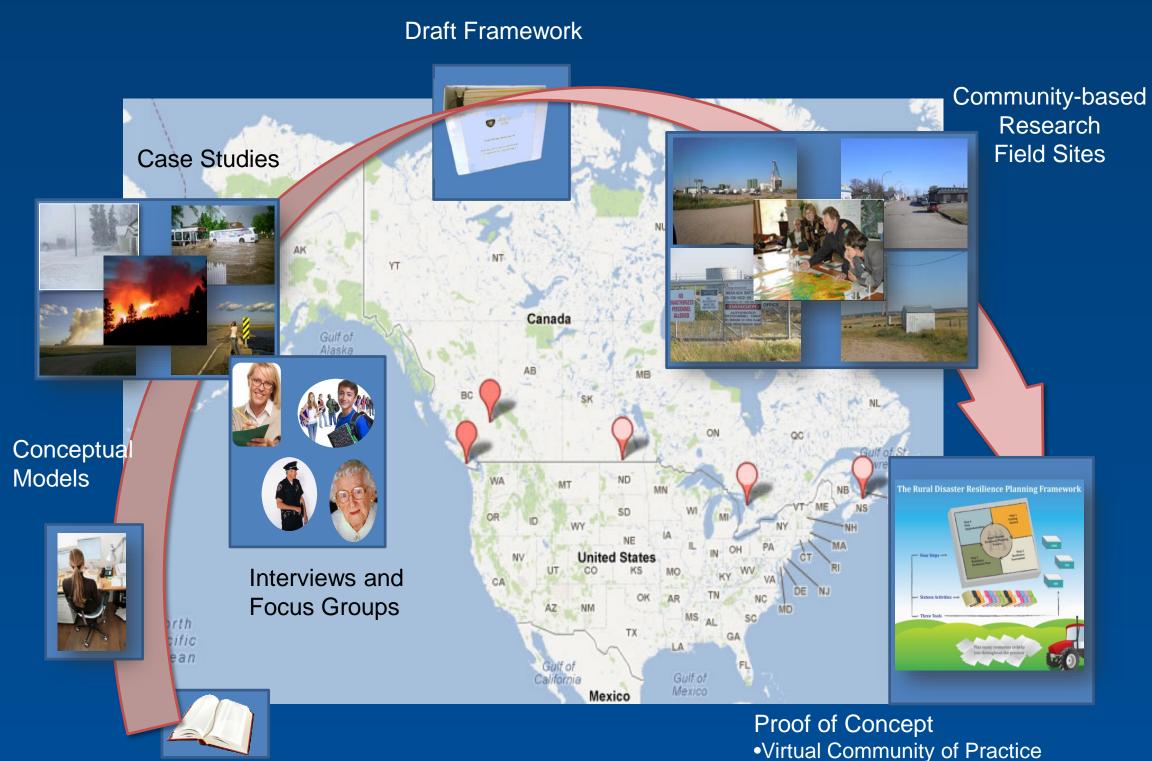


The Rural Disaster Resilience Project

Disaster Resilience - the ability to survive and thrive in the face of uncertainty - is the foundation of rural life. It is also the cornerstone of effective emergency management across all phases of a disaster from preparedness through response and recovery. There is much to learn about resilience from remote, rural, and coastal communities; their resilience is one of Canada's biggest assets. At the same time, the emergency planning capacity of RRC communities is often constrained by a lack of resources and access to user-friendly risk mitigation planning tools and processes.

The Justice Institute of British Columbia (JIBC) launched the Rural Disaster Resilience Project (RDRP) in 2008. This multi-year research project strengthens the community disaster management and health system capabilities of rural, remote, and coastal communities (RRC) through community-based action research that informs and influences policy and practice.



Literature Review

•Online Planning Framework

The project is funded through the Centre for Security Science, in partnership with the Public Health Agency of Canada. Participating partners include Natural Resources Canada, Public Safety Canada, Royal Roads University, and Pearces2 Consulting.

The project designed, developed, and implemented:

• The **Disaster Resilience Planning Network** – an online Virtual Community of Practice to support community disaster resilience planning

• The Rural Disaster Resilience Planning Framework – a disaster resilience planning process designed for remote, rural, and coastal communities

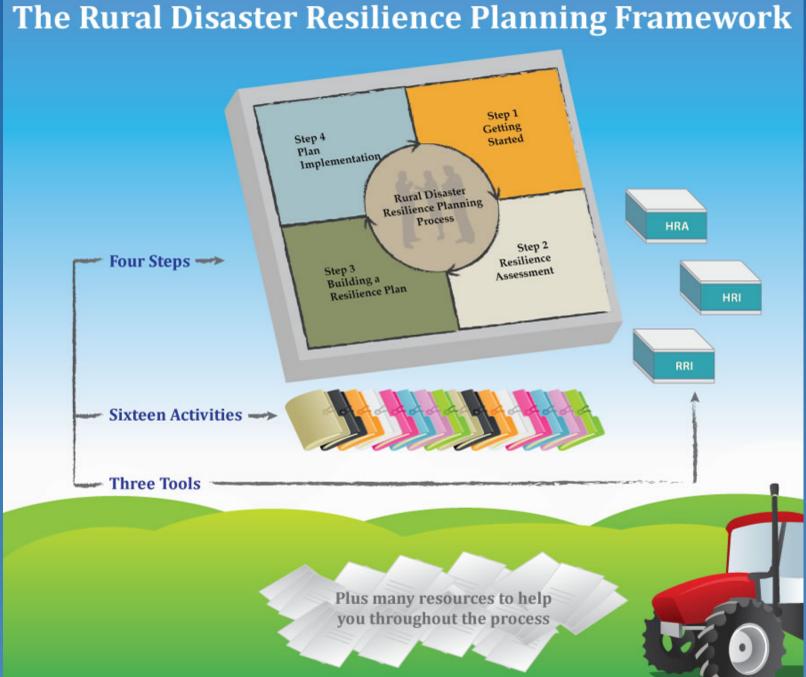
• Three tools for community resilience assessment and planning: the **Rural Resilience Index** (RRI), **Hazard Resilience** Assessment (HRA), and Hazard Resilience Index (HRI)

Over four years, the project involved an extensive literature review and synthesis, interviews and case study reviews with Canadian remote, rural, and coastal communities, development of the draft framework with two pilot sites, and communitybased research with three field sites to validate and refine the process and tools.

The RDRP Planning Framework

is a comprehensive risk and resilience management framework that supports the ability of RRC communities to engage in disaster preparedness and resilience enhancement planning. The framework provides a flexible, user-friendly guided resilience enhancement planning process that includes participatory, qualitative disaster risk and resilience assessment tools.

The framework consists of 4 steps and 16 activities and is supported through an extensive pool of related resources. The HRA and HRI tools provide communities with a comprehensive tool for determining a community's resilience in the face of locally identified hazard-risk priorities. The Rural Resilience Index (RRI) focuses on the strengths and challenges facing a community in terms of disaster resilience. Together, these assessments identify resilience enhancement priorities that will guide the development of the community disaster resilience plan.



Rural Resilence

Bowles, R., Amaratunga, C., Anderson, G., Cox, R., Pearce, L., & Ursuliak, D.

Rural Disaster Resilience Index

The RRI allows remote, rural, and coastal communities to assess their community's disaster resilience in a simple, easy-to-use, yet robust way. The RRI is a flexible, scalable process; communities can work with either the full instrument or a subset of community disaster resilience dimensions and indicators that fit with the resources, priorities, values and capabilities of their particular community and planning team.

2 RRI Categories:

The RRI assesses communities on two categories of community resilience:

- Community Resources
- Disaster Management

Community Resources include community characteristics associated with the quality and strength of residents' connections to each other, and the self-reliance, self-determination and selfsufficiency of the community. It also includes other characteristics of community functioning such as the presence of effective leadership, inclusive decision-making processes, and open, clear, and transparent communication channels also influence resilience.

Disaster Management focuses attention on factors associated with disaster preparedness and disaster management. This includes things such as awareness of risks and threats and what individual households, businesses and the community as a whole have put in place to reduce those threats and prepare for them should they occur.

16 Dimensions

Both sections of the RRI contain a number of dimensions of community resilience. These dimensions are presented as statements indicative of resilience characteristics within a community.

Characteristics

Each dimension is assessed by considering a final level of characteristics – statements associated with specific features of a community or its resilience.

Communities can rank their community as "high" or "low" resilience in each dimension, identify those dimensions that are particularly important to their community, and flag areas that require further exploration or discussion.

Development of the RRI

The development of the RRI combines the insights of researchers and experts in disaster resilience with those of individuals living in rural environments. The RRI incorporates the need for a contextual, flexible approach to emergency management, recognizing the value of engaging stakeholders as active participants in the development of plans, planning tools, and processes rather than as passive recipients.

The development of the RRI blends a top-down and bottom-up approach that integrates the best of academic research on community disaster resilience and the insights and expertise of those living and working in RRC communities. The development process incorporates ongoing feedback from researchers and community residents in the project's five RRC field site communities.

The first step in our *top down* approach was to undertake an extensive review of the community disaster resilience literature and assessment frameworks. Eighteen critical frameworks provided a cross-section of the most well-developed and/or most-utilized disaster resilience assessment tools developed by leading national and international agencies and researchers. The cross-cutting concepts and indicators identified through this process were thematically categorized to generate seven core domains of community disaster resilience using this capital-based approach: 1) human capital, 2) built capital, 3) social capital, 4) economic capital, 5) natural capital, 6) governance, and 7) disaster preparedness.

Complimenting the analysis of the research on community disaster resilience frameworks, the researchers conducted a series of semi-structured interviews in eight RRC communities. Thematic analysis focused on how community disaster resilience was understood or defined by citizens, community disaster resilience indicators, and patterns of relationships between and amongst those indicators.

The resulting draft Rural Resilience Index was piloted as part of the overall RDRP Planning Framework in three RRC communities across Canada. Subsequent analysis of these communities' experience resulted in the current version of the RRI.

Most recently, the RRI has been adapted for online delivery through the DRRPlan.net site.

JIBC







RRI Resilience Categories and Dimensions

Community Resources	
Our community if close knit and involved	Our com
Our community is self-sufficient and resourceful	Our com protecte
Our community is diverse in skills, knowledge and culture	Our live
Our community has a strong health and social support system	Our com disaster
Our community has strong local leadership and governance	Our com disaster
Our community is stable and sustainable	Our com
Our community has adequate services and utilities	Our com emerger
Regional governance and services support our community	
Our community is disaster aware	

Disaster Management
Our community is prepared for disaster
Our community structures are protected
Our livestock, animals and farms are protected
Our community has a comprehensive disaster plan
Our community is involved in ongoing disaster planning
Our community has adequate first response capacity
Our community has adequate emergency medical response capacity

Accessing the RRI Online: The Disaster Resilience Planning Network: DRRPlan.net

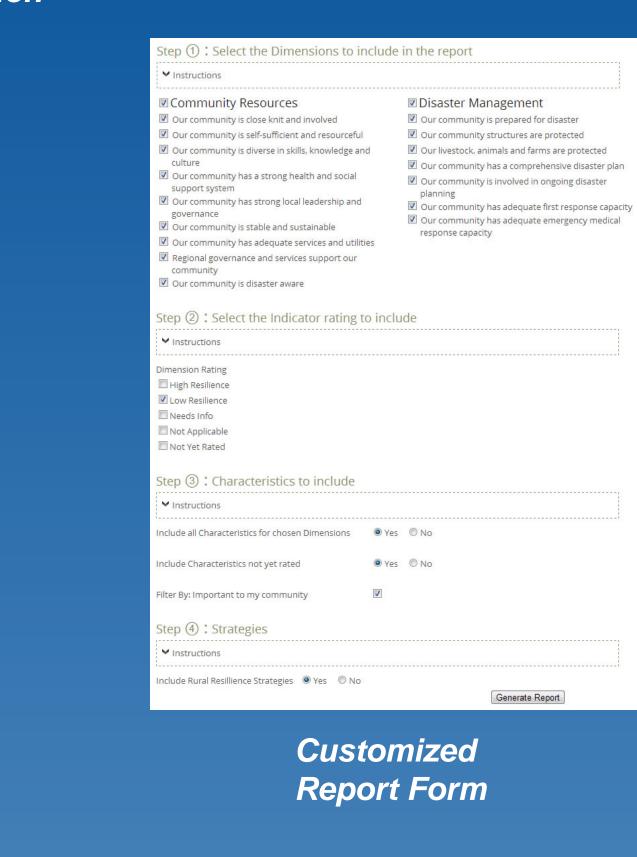
The Disaster Resilience Planning Network is a Virtual Community of Practice (VCoP) that supports remote, rural, and coastal communities engaged in disaster resilience planning.

The site provides communities with a link to the RDRP Planning Framework, access to a range of disaster resilience planning resources, and collaborative work spaces to support their planning efforts.



	ex (F
y Resources anagement	
community Resources	
ity is close knit and involved	
High Low Need More Ni Resilience Info Appli	
CHARACTERISTICS	This is important to my community
There is generally a strong sense of belonging	
Residents generally trust and value each other	
Residents are proud of their community	
Residents work together to accomplish shared goals	
Many residents turn out at community events (parades, fairs, meetings)	
Inter-generational ties within and between families are strong	
The community offers a wide-range of recreational and cultural activities	
,	
Many residents participate in community groups, clubs, churches, and other shared activities	
Many residents participate in community groups, clubs, churches, and	
Many residents participate in community groups, clubs, churches, and other shared activities Many residents get involved in addressing community problems and	

Paper-based version



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Using the RRI

The Rural Resilience Index (RRI) helps communities assess their disaster resilience in order to provide information on areas of resilience that can be enhanced. The RRI is most useful when it includes broad participation from stakeholders and residents in a community. A significant benefit of the process of assessing resilience arises from the discussions it generates and the increased awareness of disaster preparedness, disaster risk reduction, and disaster resilience this can create in the community.

Communities complete the RRI using either web- based or paper-based forms. Each format has the same information and process.

Communities start by choosing one of the 16 RRI dimensions. Each dimension has a list of characteristics related to the resilience dimension. For example, one characteristic of the dimension "Our community is close knit and involved" is "Residents work together to accomplish shared goals." The community reviews the characteristics and, through a process of gathering necessary information, discussion, and consensus building, rates their community as having either "high" or "low" resilience. Communities can also flag specific dimensions or characteristics as "important" for future consideration.

Our community if close knit and involved imension Rating: Low Resilience

silience Strategies se collaborative, whole-of-community resource mapping to identify capacity, needs, strengths and deficits within and cross different groups in the community. sign and initiate community events that bring together a wide range of the community (across ages, cultural and ethnic ifferences). Such events can increase a sense of connection and belonging and foster a stronger sense of community hile enhancing disaster preparedness awareness (e.g., information event that outlines disaster planning, response, and covery roles and resources)

ommunity projects that bring together residents to accomplish shared goals can build a sense of community. Conside rganizing events or other ways of identifying a project and initiating activities to accomplish this shared goal (e.g., building a playground; undertaking a community clean up to reduce fire hazards; creating a community garden). ommunity story projects can bring together young people and elders to build a historical record of the community

through stories and photos. These stories can be about the community's general history or focused on previous isasters/emergencies to provide lessons learned that can guide future planning (see http://www.orton.org/blog/participation_by_design for ideas). e greater the variety of spaces that exist in a community the more likely the various interests, passions and skills of al

sidents will be addressed resulting in greater involvement of youth, seniors and various cultural/ethnic minorities in tivities and programs, Identify existing spaces in the community that have fallen out of use and consider revitalizing em for new activities (i.e. an idle basement at the local Rotary Club could be used as an alcohol free music venue fo teenagers. Sharing existing space can maximize their use and create more opportunities for a wider range of community members and events. For example, in Memphis, Tennessee, a Church agreed to share building space with a local Mosque order to create a place for Muslims in the community to worship. ireen space has been shown to enhance the quality of life in communities. Work with residents, local businesses, and

mmunity organizations (e.g., Chamber of Commerce) to identify unused or under-used spaces that might be

Our community if close knit and involved

IMENSION RATING 🛛 🗇 High Resilience 💿 Low Resilience 🔘 Needs Info 🔘 Not Applicable CHARACTERISTICS Image: 0 0 0 0 sidents are proud of their communit sidents work together to accomplish shared goals 0 0 0 Many residents turn out at community events (parades, fairs, meeting 🕥 🔘 🔘 Inter-generational ties within and between families are strong The community offers a wide-range of recreational and cultural activitie Many residents participate in community groups, clubs, churches, and other shared 🖻 💿 💿 Many residents get involved in addressing community problems and issues There is a variety of indoor & outdoor spaces for cultural, social and recreational activities Image: O O There is a wide range of volunteer opportunitie O O Local organizations are able to recruit and retain volunteer

Web version



ransformed into green space

CANADA'S *leading* PUBLIC SAFETY EDUCATOR

Simply participating in the process increases a community's resilience!

Communities next use the RRI's customized reporting features to generate a comprehensive assessment of both areas of strength ("high" resilience) and those in need of improvement ("low" resilience). Communities complete the RRI process by identifying specific areas (dimensions) in which they would like to focus their resiliency efforts. The RRI provides a comprehensive series of suggested strategies for increasing resilience for each resilience dimension. The result is a comprehensive action plan for addressing resilience building within the community.