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MULTI-HAZARD EARLY WARNING SYSTEMS

CHANGE
MANAGEMENT
MODEL APPLIED
TO IMPACT-
BASED
FORECASTING
FOR WARNING
SERVICES, FOR
NDRMOs, METS
AND PRIVATE
SECTOR

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A “Change Management Model applied to Impact-Based Forecasting”

Implementing impact-based forecasting and warning services requires significant behavioral changes of staff within National Disaster Risk Management Offices and their regional and national partners. One successful approach is to adopt a change management framework policy that enables a smooth transition from hazard (weather) forecasting to impact-based forecasting. This chapter provides a systematic approach for how a framework could be applied, based on a five-step approach:

“Awareness, Desire, Knowledge, Application and Reinforcement”, this is called the “ADKAR” model (Hiatt, 2006).

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Stage 1. Awareness: Secure consent

- Initiate discussion to raise awareness of the issues and need for impact-based forecasting and warning services within National Disaster Risk Management Offices and among national scientific institutions, such as Meteorological, biological and geological services. Government Departments play an essential role as well as the Private Sector and it is essential to ensure that they are included in the conversation and their role clarified early in the engagement process.
- Extend consultations among stakeholders, including government sectorial agencies and academia.
- Coordinate with these agencies to raise relevance of impact-based forecasting and warning services, and its benefits;
- Agree initial communications and messaging for internal and external use;
- Forge consensus and support the need to proceed to the next step (Stage 2).

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Stage 2. Desire: Endorsement and Assessment

- Bring together partners and experts, through a workshop, preferably hosted at a neutral site to:
- Introduce the benefits of impact-based forecasting;
- Analyze and review the issues and gaps;
- Find what each partner wants from the partnership and does not want;
- Reach a common ground on the proposed level of impact-based forecasting from simple impact-based forecasts and warnings (see Section 3.5) to user-specific, tailored impact-based forecasting and warnings (see Section 3.6);
- Develop a Strength, Weakness, Opportunities, Threats (SWOT) analysis to identify the capacity and capabilities of each partner; for example, the capacity to respond to warnings issued by meteorological, biological and geological services, among others .
- Explore, prioritize and rate the level of exposure to existing hazards and potential impacts that are of importance in the different territorial units of country.
- Determine current status of vulnerability, by analyzing existing risk assessments to the prioritized hazards, identifying gaps in knowledge; and develop a plan to address these gaps;
- Develop hazard-specific, time-dependent exposure information for human activities.
- Innovate using the science-to-service ethos to identify new, enhance, or retire existing impact services.

IT IS important to assess the kind and availability of Data coming from the different partners that contribute to impact-based forecasting.

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Stage 3 Knowledge: Planning and Integration

- Develop a Memorandum of Understanding (MOU)
- Introduce project management and control to:
- Develop an operating plan with an agreed vision, mission, objectives, milestones, funding model and financing trials, benefits realization plan, risk register, etc.;
- Create a legal framework for intellectual property and data exchange/usage etc.;
- Collect, manage, categorize, store and exploit data;
- Establish working groups, chairs and associated Terms of Reference (TOR);
- Build trials to develop new services, or to enhance or retire existing ones;
- Ensure minute taking and recording.
- Communicate and engage with stakeholders.
- Set up institutional framework, as required.
- Train providers and users of services based around a competencies framework.
- Formulate monitoring and evaluation tools to assess service progress and improvements.
- Identify Governance issues and the roles and responsibilities of Key actors and stakeholders.

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Stage 4: Apply and Implement

- Implement the impact-based forecasting and warning services;
- Monitor implementation and communicate with users;
- Prepare regular updates between partners and users;
- Newsletters/news group/website/meetings;
- Create a user group of customers and establish terms of agreement;
- Establish feedback protocols and Quality Assurance (QA) with the user group so that during trials the partnership can evaluate and verify the usefulness and relevance of new services;
- Create a core stakeholder and funder partner group to challenge, support and assist in the building and implementation of a sustainable business/funding model;
- Develop a branding and marketing strategy (attribution to partners);
- Conduct post-event evaluation and promote benefits;
- Continue to refine protocols and services;
- Challenge science to develop impact, risk and social science research;
- Challenge technology to deliver application layers, e.g., GIS tools, to mash data and delivery channels to disseminate information;
- Develop databases to capture impacts.

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Stage 5: Reinforcement

- Operationalize and implement those services trialed; those that were cost effective and delivered the most value to customers;
- Operate a Quality Management System (QMS);
- Enhance partner and user coordination;
- Sustain resources and funding to enhance services;
- Provide continuous training and mentoring;
- Focus on continuous improvement;
- Consider expanding partnerships.

References

1. Hiatt, J. M. (2006). ADKAR: a model for change in business, government and our community. Prosci Learning Center.
2. Hiatt, J. M. & Creasey, T. J. (2003). Change management: The people side of change. Prosci.