Communication for Dam Safety Management

Nile Cooperation for Results Project (NCORE)
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Many officials, during the evolution of the failure of the spillway, came forward to assure the public that all was well. All was not well, and all is not well. All shall not be well for a long while with this dam. Why can men not simply be truthful to other men? When did some fool decide that we must placate the American public, hiding any bad thing from them as if they were children?
1. What is communication?
2. Why Dam Safety communication in the ENB context?
3. What are the salient points to consider in designing dam safety communication?
4. Who are the key stakeholders in dam safety communication and their roles?
Why is dam safety communication important in the context of Eastern Nile?

- Ref – intro (unique features of the Nile – water scarce, stressed TB river with many water resources infrastructure planned and implemented --)
- Need for coordinated planning, implementation and operation of water infrastructure → communication
- Dam Safety could be a potential either for confidence building and proactive conflict prevention – or for dis/mis-information, mobilization for regional conflict → agenda setting; framing
- Geopolitics and hydro-politics of the EN
What is communication?

1. Open, truthful exchange of factual information with affected stakeholders – to educate, alert, mobilise, inform .. = shapes (risk) informed decision making. An informed public is a safer public!

2. Is a tool for building effective working relationships and partnerships – across a range of relevant actors

3. Requires planning, preparation, practice

4. Risk communication is one type of communication

5. Dam Safety requires well planned (risk) communication
Risk Analysis Framework

- Risk Assessment
  - Science-based

- Risk Communication
  - Interactive-exchange

- Risk Management
  - Policy-based

Source: FEMA, NDSP
Communicating risk begins with understanding risk. **Risk Assessment:** Risk is the potential for an unwanted outcome resulting from an incident, event, or occurrence, as determined by its likelihood and the associated consequences.

**Emergency Action Plan (EAP):** A plan of action to be taken to reduce the potential for property damage and loss of life in an area affected by a dam failure or large flood **→** Early Warning

**Inundation Map:** A map showing areas that would be affected by flooding from releases from a dam’s reservoir. The flooding may be from either controlled or uncontrolled releases or because of a dam failure.
1. Identify a risk related issue or scenario
2. Identify key stakeholders (audiences)
3. Identify stakeholder questions and concerns
4. Develop messages consistent with risk communication principles
5. Develop supporting information
6. Conduct testing; 7. Plan for delivery
• Integrate risk communication strategies early and often — before the need arises to respond to a dam safety issue.

• Provide context for risk communication (compare with other risks).

• Focus communication on actions that individuals/organizations need to take.
Questions to ask to plan effective communication

1. What parties are involved in dam risk communication?
2. When does risk communication happen? [Before, during, and after an emergency; Mitigation, Protection, Prevention, Response and Recovery]
3. What information does the dam owner/operator have regarding the risk?
4. What/how/when what dam information does the EMA need to manage the risk?
5. What/when do the emergency support services want/need to know?
6. What/how/when would emergency support use with this info?
Develop Communication Plans For:
1. Internal use at dam safety organizations
2. Dam site and project personnel
3. Owners and stakeholders
4. Local organizations
5. Emergency Responders
6. Technical organizations or consultants
7. Decision makers
8. Upstream and downstream communities, settlements, businesses and economic entities
• Risk communication is **communicating important and life-saving information** to emergency managers, local authorities, and the public in ways that are easily received, digested, and acted upon.

• Risk **communication and stakeholder participation** should ensure that
  
  (1) **responsible and affected stakeholders** will be partners and be afforded the opportunity to participate in decisions that affect them, and
  
  (2) communications regarding **consequences, and shared solutions** should be open, transparent, and understandable.
• **Early and often**: Trusted and credible source; employs a range of medium (written; verbal; visual = suitable to specific contexts)

• **Desired outcome**
  – **Better understanding** of risk for potentially affected parties
  – Help prevent ineffective, fear-driven and potentially damaging responses to risk information and risk events
  – Open opportunities for potentially affected organizations and individuals to share risk management responsibility and enhance risk management

• **Consider different perceptions of risk when communicating risk.** Risk perception is influenced by objective and subjective factors
• Enhance communication with the public, and internally within dam owning and regulating organizations, and Emergency Management Agencies.

• Emergency Action Plans and communication with the public are important and integral aspects of reducing risk.

• Communication should be open and transparent; an interactive, two-way exchange of information.

• When presenting dam safety issues at a given dam, focus on both the benefits and the risks posed by the infrastructure.
Key Messages

1. Dam Safety related results (monitoring/surveillance/inspection and risk assessments information and data) unless communicated in time to the relevant SHs will be futile exercise and will not support Emergency Action Plan/for protecting D/S communities.

2. Communicating Dam Safety requires careful planning, organization, drills and policy before and not after dam failure and the damage! There is also the question of security of information associated with dam safety as we are communicating here uncertainties/probabilities to the public and there is risk of false alarms and unnecessary moves.

3. In TB contexts, specially in ENB fraught with so much hydroglic, hydropolitical and geostrategic complexities the need for effective communication—particularly/at a minimum among dam safety technical staff of countries—cannot be overemphasized.

4. Dam Safety communication is more effective if it is integrated into national emergency communication planning = needs to be institutionalized and streamlined!

5. There is the need – accompanying dam safety – to work out a sub-basin (risk, EAP) communication plan.
Role of Policy makers and High-level decision makers

Institutionalize Cooperative Regulation of Dam Safety
1. National Dam Safety Units
2. Reference Generic Dam Safety Guidelines
3. Inventory of Dams (Assessment, classification)
4. Develop Dam Safety regulatory framework and

Institutionalize Dam Safety Communication
1. Integrate communication (including hydrologic data, water use; emergency) into dam Safety regulation
2. Integrate communication into national emergency preparedness
3. Develop EN Sub-basin emergency preparedness and risk communication
THANK YOU