

Who	Context (Plan)	What (Task)	How (tools, methods)	Priority	Comment from User perspective
Regional authority	Prevention	Check hazard map update needs	Guidelines	High	Carried out by WLV on behalf of regional authorities. Required is a continuous check of the functionality of measures implemented. This check has to be carried out by regional/local authorities and is currently in discussion. No guidelines available for this requirement currently available.
Regional authority Hazard mapper	Prevention	Check contingency plan update needs	Guidelines	No competence	
	Hazard assessment	Prepare hazard map	Regional / national Guidelines Simulation models	Available In progress	New austrian guidelines available. Standard is currently being defined, based on state-of-the-art evaluation. Harmonisation of simulation approaches between river catchments and torrents has been defined, but not yet implemented.
Regional authority Hazard mapper	Prevention	Assign hazard mapper (with hazard assessment)	Event cadastre Order	In progress Available	Standardisation has been defined and implementation in progress. Competences are clearly defined.
	Hazard assessment	Define event scenarios	Scenario Manager	High	Is currently not explicit part of the standard procedures of hazard mapping. High priority for improving understandability of hazard maps. There is a strong need for standardised object models and data dictionaries for defining scenarios in detail. These structures and definitions must be valid beyond the direct area of competence of single institutions.
Hazard mapper	Hazard assessment	Link event scenarios to hazard map objects	Scenario manager	High	Must be directly integrated into the event scenario definition process.
Hazard mapper	Prevention measures	Evaluate alternative hazard related measures	Scenario manager (+ measure related rules/models → DSS)	Medium	Show impacts and consequences of alternative measures (changes in danger levels vs. costs).
Civil protection authority	Risk assessment	Assess vulnerability of elements at risk	GIS model	Medium	Important input for prevention measure process.
Civil protection authority	Risk assessment	Calculate risk	GIS model	Medium	Important input for prevention measure process.
Civil protection authority	Risk assessment	Link elements at risk to GIS objects	GIS	Medium	Important input for prevention measure process.
Contingency planner	Contingency planning	Communicate scenarios to stakeholders	CSA web tool (scenario manager content)	High	High relevance for awareness raising (although not in focal area of competence). Improve individual responsibility.
Contingency planner	Contingency planning	Collect contingency plan base information	GI tools, used according to INSPIRE / MONITOR II standards	No competence	
Contingency planner	Contingency planning	Prepare site inspection	CSA web tool (scenario manager content)	No competence	
Contingency planner	Contingency planning	Perform site inspection	Documentation manager: mobile tool	No competence	

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Contingency planner	Contingency planning	Evaluate alternative measures for capacity strenghtening	Scenario manager (+ measure related rules/models → DSS)	No competence	
Contingency planner	Contingency planning	define contingency plan (flow-chart)	Contingency manager	No competence	
Contingency planner	Contingency planning	define contingency plan (all tools)	Contingency manager	No competence	
Contingency planner	Contingency planning	Review contingency plan	CSA web-tool with annotations	No competence	
Contingency planner	Contingency planning	Communicate contingency plan	CSA web-tool, meetings	No competence	
Contingency planner	Contingency plan implementation	Train contingency plan	Training material	No competence	
Contingency planner	Contingency plan implementation	Define and guide contingency exercises		No competence	
Instrumentation manager	Danger assessment	Install monitoring and early-warning systems	CSA core: sensor web components	Medium	Georeference monitoring actions, based on defined scenarios and risk assessment.
Civil protection authority, scientist	Danger assessment	Complement sensor network	CSA core: sensor web components (sensor planning service)	Medium	Georeference / update monitoring actions. Use automatic support if possible.
Civil protection authority, scientist	Danger assessment	Increase measurement density	CSA core: sensor web components	No competence	
Civil protection authority, scientist	Danger assessment	Spatial information fusion	GI interpolation models	No competence	Provide input for modelling (expert know-how) in previous phases of disaster management cycle.
Observation staff	Danger assessment	Observe (observation points, observation routes)	Documentation manager: mobile tool	No competence	
Civil protection authority	Danger assessment	Forecast situation	Simulation and forecast models	No competence	Provide input for modelling (expert know-how) in previous phases of disaster management cycle.
Civil protection authority	Danger assessment	Visualise sensor data	CSA core: sensor web components	No competence	
Civil protection authority	Danger assessment	check ongoing scenario	CSA core: rules	Medium	Provide input for modelling (expert know-how) in previous phases of disaster management cycle. Expert tools necessary for interfering in automatic process of scenario detection. Ad-hoc definition of (simple) scenarios and related measures necessary. Similar tasks as in hazard assessment above, but simplified and based on pre-defined templates and available information (scenarios ...).
Civil protection authority	Danger assessment	Generate danger map (current, forecast)	CSA core: rule-based situation map	No competence	Provide input for modelling (expert know-how) in previous phases of disaster management cycle.
Civil protection authority	Danger assessment	check land movement		No specific competence	
Who	Context (Plan)	What (Task)	How (tools, methods)	Priority	Comment from User perspective
Civil protection authority	Danger assessment	check movement predictions		No specific competence	
Civil protection authority	Warning	Communicate warnings to operational units	CSA core: sensor alert services	No competence	
Civil protection authority	Warning	Receive automatic alert/alarm notification	CSA core: sensor alert services	No competence	
Strategic command	Intervention	Generate and update Common Operational Picture (COP)		No competence	
Civil protection authority	Intervention	Start and monitor evacuation		No competence	
Tactical command	Intervention	??? not yet defined		No competence	
Relief unit operator	Intervention	Use measure leaflet in the field (electronic device?)	Contingency manager – measure leaflet	No competence	
Relief unit operator	Intervention	??? not yet defined	CSA mobile tool (?)	No competence	
Observer, helper	Intervention	Document event process/effects	Documentation manager: mobile tool	High	Easy to use and very basic documentation (requirements as defined in GUSTAV).
Documenter	Documentation	Document event effects	Documentation manager: mobile tool	High	Increased level of detail for complete documentation of event process and related effects (damages).
Civil protection authority	Documentation	Report sensor information	Documentation manager: report tool	High	Generate reports as basis for pos-evaluation of events (especially: comparison of real event course and pre-defined scenario).