

Annex G – Review and classification of IDMP examples of long- and short-term measures

- Table G1: Bosnia and Herzegovina,
- Table G2: Serbia,
- Table G3: Slovakia,
- Table G4: Slovenia.

Table G1 (below): Review and classification of IDMP examples of drought measures for Bosnia and Herzegovina. Help provided by Republic Hydrometeorological Service of Republic of Srpska; Ministry of Agriculture, Forestry and Water Management of Republic of Srpska.

Examples of measures for different drought stages (review for Bosnia and Herzegovina)		How useful/applicable/adoptable are these measures for a country? <i>Mark relevant option with ,x'</i>				Drought stage within ODMM it could be assigned to in a country
		Already in place	Applicable	Conditionally applicable	Not applicable	
Preparedness – long-term						
Water resources						
Enhancing supply	Storage capacity increase			X		
	Water transfers			X		
	Locating new potential resources		X			
	Aqueducts and canals		X			
	Groundwater recharge				X	
	Small scale water collecting/harvesting				X	
	Adjusting legal and institutional framework		X			
	Artificial recipitation				X	
	Desalination of brackish & saline				X	
	Water treatment and reuse of wastewater/recycling			X		
Improving demand management (in all sectors/users)	Reducing use			X		
	Reducing losses		X			
	Reviewing water allocation		X			
	Monitoring, metering, forecasting		X	X		
	Conjunctive use (surface-groundwater)			X		
	Reviewing education curricula		X			
	Adopting/reviewing water tariffs		X			
	Adjusting legal & institutional framework			X		
	Voluntary insurance, pricing and economic incentives			X		
Agriculture						

Agricultural water management	Irrigation expansion if/where possible	XX				
	Water loss reduction		XX			
	Irrigation scheme modernisation/conversion to more efficient systems		X	X		
	Shifts to less water-demanding crops and cropping systems		X	X		
	Research of drought tolerant crops/species/genotypes	X				
	Adjusting cropping calendars to avoid heat stress	X	X			
	Use of non-conventional water resources		XX			
	Deficit irrigation, supplementary irrigation		XX			
	Conjunctive use of surface- and groundwater		X	X		
	Soil water conservation practices		X	X		
	Adopting/reviewing water tariffs			X		
Crop production	Breeding for drought tolerant species		X	X		
	Adaptation to short season		X			
	Proper fertilisation	X				
	No-till/reduced tillage systems	X	X			
	Crop rotation/cropping systems	X				
	Seeding rate/density	X				
	Weeding/adapted pest management	X				
	Mulching/adapted soil preparation	X				
	Strip farming		X			
Crop insurance	X	X				
Livestock	Drinking suppliers		X			
	Balancing livestock in irrigated areas		X			
	Managing pasture and range supportive capacity	X	X			
	Use of indigenous breeds of feed and fodder			X	X	
	Genotypes of mammals / low water use				X	
	Early information for pastoralists	XX				
	Forage reserves	X				

	Non-conventional doffer sources			X		
Other sectors – the level of need to introduce further measures for:						
	Municipal water					
	Health					
	Food security					
	Energy production					
	Transportation					
	Tourism/recreation					
	Industry					
	Forestry					
	Rangeland fires					
	Education					
	Environment					
	Ecosystem/biodiversity services					
Preparedness – short-term						
Water resources						
Supply adumentation	Mixing fresh & low quality waters			X		
	Exploiting high-cost waters				X	
	Adjusting legal and institutional framework		X			
	Local new standby resources (for emergency)				X	
	Providing permits to exploit additional resources	X				
	Providing drilling equipment					X
Demand management	Restricting agricultural uses (rationing, subjecting certain crops to stress...)			X		
	Restricting municipal uses (lawn irrigation...)			X		
	Reviewing operations of reservoirs	X				
	Diverting water from given uses		X	X		
	Temporary over-drafting aquifers			X		
	Reviewing water tariffs	X				

	Rationing water supply	x				
	Sensitising and awareness campaign		x			
	Adjusting legal and institutional framework		x			
	Negotiating transfer between sectors		x			
	Dual distribution networks for drinking water supply			x		
	Adopting carry-over storage			x		
	Conjunctive use			x		
Measures other than supply and demand	Temporary reallocation of water (on basis of assigned use priority)		x			
	Decreasing transport and distribution costs		x			
	Banning/restricting uses		x			
	Providing emergency supplies			x		
	Elaborating set-aside regulations			x		
	Inventory of private wells, negotiate purchase of water rights for public use			x		
	Elaborate regulations on water markets			x		
	Assess vulnerability & advise water users			x		
	Elaborate alert procedures			x		
Agriculture						
Crop production	Supplementary irrigation where water can be mobilised and made available on short-term basis	x	x			
	Soil water conservation practices		x			
	Early warning, information and advice to farmers	xx				
	Review of fertilization programme	x		x		
	Soil mulching and crop shading	x		x		
	Reducing crop density		xx			
	Weeding		xx			
Livestock	Early warning/advice to herders	xx				
	Destocking/incentives for owners to reduce				x	
	Review available feed and reduce animal numbers				x	

	Livestock transfer where/when possible		X			
	Watering points/water hauling sources		XX			
	Locating potential sites of water for emergency		X			
	Constituting feed stock			X		
	Adjusting water salinity to tolerable levels		X			
	Rapid inventory of grazing potential		X		X	
	Protective (natural) shelters		X			
	Alternative feed (by-products, less and unpalatable shrubs..)			X		
	Supplementary, substitute feed		X	X		
Response & recovery						
	Drinking water supply (humans, livestock, wildlife)					
	Insurance compensation					
	Public aid to compensate loss of revenue					
	Tax relief (reduction or delay of payment deadline)					
	Rehabilitation/recovery programmes					
	Food programmes					
	Feed programmes					
	Fire control programmes					
	Resolving conflicts					
	Postponing payment of credits					
	Implement set-aside regulations					

Table G2 (below): Review and classification of IDMP examples of drought measures for Serbia. Help provided by Ministry of Agriculture, Forestry and Water Management; Veterinary Directorate, Forestry Directorate, Department of Agricultural Policy, Group for Climate Change; Ministry of Environmental Protection; Ministry of Interior/Sector for Emergency Situations; Public Enterprise for Water Management “Srbijavode”; Faculty of Agriculture (University of Novi Sad); Republic Hydrometeorological Service of Serbia; Environmental Protection Agency.

Examples of measures for different drought stages (review for Serbia)		How useful/applicable/adoptable are these measures for a country? <i>Mark relevant option with ,x'</i>				Drought stage within ODMM it could be assigned to in a country
		Already in place	Applicable	Conditionally applicable	Not applicable	
Preparedness – long-term						
Water resources						
Enhancing supply	Storage capacity increase	X				0
	Water transfers					
	Locating new potential resources		X			0
	Aqueducts and canals	X				0, 4
	Groundwater recharge			X		0-4
	Small scale water collecting/harvesting	X				0-4
	Adjusting legal and institutional framework	X				0
	Artificial recipitation				X	
	Desalination of brackish & saline				X	
	Water treatment and reuse of wastewater/recycling					
Improving demand management (in all sectors/users)	Reducing use		X			1-4
	Reducing losses			X		0, 4
	Reviewing water allocation		X			0-4
	Monitoring, metering, forecasting		X			0-4
	Conjunctive use (surface-groundwater)	X				0-4
	Reviewing education curricula		X			0
	Adopting/reviewing water tariffs		X			4
	Adjusting legal & institutional framework		X			4
	Voluntary insurance, pricing and economic incentives			X		0
Agriculture						

Agricultural water management	Irrigation expansion if/where possible			X		0
	Water loss reduction		X			0
	Irrigation scheme modernisation/conversion to more efficient systems		X			0
	Shifts to less water-demanding crops and cropping systems	X				0
	Research of drought tolerant crops/species/genotypes	X				0
	Adjusting cropping calendars to avoid heat stress	X				0
	Use of non-conventional water resources		X			1-4
	Deficit irrigation, supplementary irrigation		X			1-4
	Conjunctive use of surface- and groundwater		X			1-4
	Soil water conservation practices	X				0,1,4
Adopting/reviewing water tariffs		X			0,4	
Crop production	Breeding for drought tolerant species	X				0
	Adaptation to short season	X				0
	Proper fertilisation	X				0-4
	No-till/reduced tillage systems		X			2-4
	Crop rotation/cropping systems	X				0
	Seeding rate/density	X				0
	Weeding/adapted pest management	X				0-4
	Mulching/adapted soil preparation	X				1-4
	Strip farming		X			0
Crop insurance	X				0	
Livestock	Drinking suppliers		X			3
	Balancing livestock in irrigated areas			X		2-4
	Managing pasture and range supportive capacity		X			0
	Use of indigenous breeds of feed and fodder				X	
	Genotypes of mammals / low water use				X	
	Early information for pastoralists	X				0-4
	Forage reserves	X				2,3,4

	Non-conventional doffer sources				X	
Other sectors – the level of need to introduce further measures for:						
	Municipal water	X				0-4
	Health		X			0-4
	Food security		X			0-4
	Energy production		X			0-4
	Transportation		X			3
	Tourism/recreation		X			0-3
	Industry		X			0-4
	Forestry		X			0-4
	Rangeland fires		X			0-4
	Education		X			0, 4
	Environment		X			0-4
	Ecosystem/biodiversity services		X			0-4
Preparedness – short-term						
Water resources						
Supply adumentation	Mixing fresh & low quality waters			X		3,4
	Exploiting high-cost waters				X	
	Adjusting legal and institutional framework		X			0,4
	Local new standby resources (for emergency)			X		2
	Providing permits to exploit additional resources			X		2
	Providing drilling equipment		X			0
Demand management	Restricting agricultural uses (rationing, subjecting certain crops to stress...)	X				3
	Restricting municipal uses (lawn irrigation...)	X				3
	Reviewing operations of reservoirs	X				0-4
	Diverting water from given uses			X		2,3
	Temporary over-drafting aquifiers			X		2,3
	Reviewing water tariffs		X			0,4

	Rationing water supply	X				2, 3
	Sensitising and awareness campaign		X			0-4
	Adjusting legal and institutional framework		X			0,4
	Negotiating transfer between sectors		X			2,3
	Dual distribution networks for drinking water supply	X				0,4
	Adopting carry-over storage			X		2,3
	Conjunctive use			X		3,4
Measures other than supply and demand	Temporary reallocation of water (on basis of assigned use priority)	X				2,3
	Decreasing transport and distribution costs		X			4
	Banning/restricting uses		X			3
	Providing emergency supplies		X			2
	Elaborating set-aside regulations		X			0
	Inventory of private wells, negotiate purchase of water rights for public use			X		0,4
	Elaborate regulations on water markets		X			0
	Assess vulnerability & advise water users		X			0
	Elaborate alert procedures		X			0
Agriculture						
Crop production	Supplementary irrigation where water can be mobilised and made available on short-term basis		X			3
	Soil water conservation practices		X			0
	Early warning, information and advice to farmers	X				1-4
	Review of fertilization programme		X			2,3
	Soil mulching and crop shading	X				1-3
	Reducing crop density	X				0,3
	Weeding	X				0-4
Livestock	Early warning/advice to herders	X				1-4
	Destocking/incentives for owners to reduce				X	
	Review available feed and reduce animal numbers				X	

	Livestock transfer where/when possible			X		3
	Watering points/water hauling sources		X			0,1
	Locating potential sites of water for emergency		X			0-2
	Constituting feed stock	X				0,1
	Adjusting water salinity to tolerable levels				X	
	Rapid inventory of grazing potential				X	
	Protective (natural) shelters				X	
	Alternative feed (by-products, less and unpalatable shrubs..)	X				3
	Supplementary, substitute feed	X				3
Response & recovery						
	Drinking water supply (humans, livestock, wildlife)	X				2-4
	Insurance compensation	X				4
	Public aid to compensate loss of revenue	X				4
	Tax relief (reduction or delay of payment deadline)	X				4
	Rehabilitation/recovery programmes					
	Food programmes					
	Feed programmes					
	Fire control programmes	X				4
	Resolving conflicts					
	Postponing payment of credits		X			4
	Implement set-aside regulations	X				4

Table G3 (below): Review and classification of IDMP examples of drought measures for Slovakia. Help provided by Faculty of Horticulture and Landscape Engineering; Slovak University of Agriculture (SUA) in Nitra, Slovakia.

Examples of measures for different drought stages (review for Slovakia)		How useful/applicable/adoptable are these measures for a country? <i>Mark relevant option with ,x'</i>				Drought stage within ODMM it could be assigned to in a country
		Already in place	Applicable	Conditionally applicable	Not applicable	
Preparedness – long-term						
Water resources						
Enhancing supply	Storage capacity increase	x				1
	Water transfers		x			2
	Locating new potential resources		x			
	Aqueducts and canals		x			2
	Groundwater recharge			x		
	Small scale water collecting/harvesting	x				1
	Adjusting legal and institutional framework	x				0
	Artificial recipitation				x	
	Desalination of brackish & saline				x	
	Water treatment and reuse of wastewater/recycling			x		1
Improving demand management (in all sectors/users)	Reducing use	x				1,2
	Reducing losses	x				1
	Reviewing water allocation		x			0
	Monitoring, metering, forecasting	x				0,1
	Conjunctive use (surface-groundwater)		x			1 (necessary to assess possibilities firstly)
	Reviewing education curricula		x			0
	Adopting/reviewing water tariffs		x			0
	Adjusting legal & institutional framework	x				0
	Voluntary insurance, pricing and economic incentives		x			0
Agriculture						

Agricultural water management	Irrigation expansion if/where possible	x				
	Water loss reduction		x			0
	Irrigation scheme modernisation/conversion to more efficient systems	x				0,1
	Shifts to less water-demanding crops and cropping systems		x			0
	Research of drought tolerant crops/species/genotypes		x			0
	Adjusting cropping calendars to avoid heat stress		x			0,1
	Use of non-conventional water resources			x		
	Deficit irrigation, supplementary irrigation		x			1,2
	Conjunctive use of surface- and groundwater		x			1
	Soil water conservation practices		x			0
Adopting/reviewing water tariffs		x			0	
Crop production	Breeding for drought tolerant species		x			
	Adaptation to short season		x			
	Proper fertilisation		x			
	No-till/reduced tillage systems	x				
	Crop rotation/cropping systems	x				
	Seeding rate/density		x			
	Weeding/adapted pest management		x			
	Mulching/adapted soil preparation		x			
	Strip farming		x			
Crop insurance		x				
Livestock	Drinking suppliers					
	Balancing livestock in irrigated areas					
	Managing pasture and range supportive capacity					
	Use of indigenous breeds of feed and fodder					
	Genotypes of mammals / low water use					
	Early information for pastoralists					
	Forage reserves					

Non-conventional doffer sources						
Other sectors – the level of need to introduce further measures for:						
Municipal water				X		
Health				X		
Food security				X		
Energy production					X	
Transportation					X	
Tourism/recreation				X		
Industry				X		
Forestry				X		
Rangeland fires			X			
Education			X			
Environment			X			
Ecosystem/biodiversity services				X		
Preparedness – short-term						
Water resources						
Supply adumentation	Mixing fresh & low quality waters				X	
	Exploiting high-cost waters			X		
	Adjusting legal and institutional framework	X				
	Local new standby resources (for emergency)		X			
	Providing permits to exploit additional resources			X		
	Providing drilling equipment					X
Demand management	Restricting agricultural uses (rationing, subjecting certain crops to stress...)	X				1,2,3
	Restricting municipal uses (lawn irrigation...)	X				1,2,3
	Reviewing operations of reservoirs	X				1,2,3
	Diverting water from given uses	X				1,2,3
	Temporary over-drafting aquifers			X		
	Reviewing water tariffs		X			0

	Rationing water supply	x				1,2,3
	Sensitising and awareness campaign	x				0
	Adjusting legal and institutional framework	x				0
	Negotiating transfer between sectors	x				1,2,3
	Dual distribution networks for drinking water supply			x		
	Adopting carry-over storage	x				0
	Conjunctive use			x		1
Measures other than supply and demand	Temporary reallocation of water (on basis of assigned use priority)				x	
	Decreasing transport and distribution costs					
	Banning/restricting uses	x				
	Providing emergency supplies			x		0
	Elaborating set-aside regulations		x			0
	Inventory of private wells, negotiate purchase of water rights for public use			x		0
	Elaborate regulations on water markets			x		0
	Assess vulnerability & advise water users	x				
	Elaborate alert procedures		x			0,1
Agriculture						
Crop production	Supplementary irrigation where water can be mobilised and made available on short-term basis			x		
	Soil water conservation practices		x			
	Early warning, information and advice to farmers		x			
	Review of fertilization programme			x		
	Soil mulching and crop shading		x			
	Reducing crop density			x		
	Weeding		x			
Livestock	Early warning/advice to herders					
	Destocking/incentives for owners to reduce					
	Review available feed and reduce animal numbers					

	Livestock transfer where/when possible					
	Watering points/water hauling sources					
	Locating potential sites of water for emergency					
	Constituting feed stock					
	Adjusting water salinity to tolerable levels					
	Rapid inventory of grazing potential					
	Protective (natural) shelters					
	Alternative feed (by-products, less and unpalatable shrubs..)					
	Supplementary, substitute feed					
Response & recovery						
	Drinking water supply (humans, livestock, wildlife)		x			
	Insurance compensation		x			
	Public aid to compensate loss of revenue		x			
	Tax relief (reduction or delay of payment deadline)				x	
	Rehabilitation/recovery programmes		x			
	Food programmes				x	
	Feed programmes					x
	Fire control programmes		x			
	Resolving conflicts					x
	Postponing payment of credits				x	
	Implement set-aside regulations				x	

Table G3 (below): Review and classification of IDMP examples of drought measures for Slovenia. Help provided by Slovenian Water Agency; Ministry of the Environment and Spatial Planning.

Examples of measures for different drought stages (review for Slovenia)		How useful/applicable/adoptable are these measures for a country? <i>Mark relevant option with ,x'</i>				Drought stage within ODMM it could be assigned to in a country
		Already in place	Applicable	Conditionally applicable	Not applicable	
Preparedness – long-term						
Water resources						
Enhancing supply	Storage capacity increase			x		0
	Water transfers			x		0
	Locating new potential resources	x				0
	Aqueducts and canals			x		0
	Groundwater recharge	x		x		0
	Small scale water collecting/harvesting	x	x			0
	Adjusting legal and institutional framework			x		0
	Artificial recipitation		x			0
	Desalination of brackish & saline			x		0,1,2,3
	Water treatment and reuse of wastewater/recycling		x			0
Improving demand management (in all sectors/users)	Reducing use	x				0,1,2,3,4,
	Reducing losses	x				0
	Reviewing water allocation		x			0
	Monitoring, metering, forecasting	x				0,1,2,3,4,
	Conjunctive use (surface-groundwater)		x			0
	Reviewing education curricula		x			0
	Adopting/reviewing water tariffs	x				0
	Adjusting legal & institutional framework		x			0
	Voluntary insurance, pricing and economic incentives		x			0
Agriculture						

Agricultural water management	Irrigation expansion if/where possible		x		0
	Water loss reduction		x		0,1,2,3,4,
	Irrigation scheme modernisation/conversion to more efficient systems		x		0
	Shifts to less water-demanding crops and cropping systems		x		0
	Research of drought tolerant crops/species/genotypes		x		0
	Adjusting cropping calendars to avoid heat stress		x		0
	Use of non-conventional water resources				
	Deficit irrigation, supplementary irrigation		x		0,1,2,3,4,
	Conjunctive use of surface- and groundwater		x		0
	Soil water conservation practices		x		0,1,2,3,4,
	Adopting/reviewing water tariffs	x			0
Crop production	Breeding for drought tolerant species		x		0
	Adaptation to short season		x		0
	Proper fertilisation		x		0
	No-till/reduced tillage systems				
	Crop rotation/cropping systems		x		0
	Seeding rate/density				
	Weeding/adapted pest management		x		0
	Mulching/adapted soil preparation		x		0
	Strip farming				
	Crop insurance		x		0
Livestock	Drinking suppliers				
	Balancing livestock in irrigated areas				
	Managing pasture and range supportive capacity		x		0
	Use of indigenous breeds of feed and fodder		x		0
	Genotypes of mammals / low water use		x		0
	Early information for pastoralists				
	Forage reserves				

Non-conventional doffer sources						
Other sectors – the level of need to introduce further measures for:						
Municipal water			X			
Health			X			
Food security			X			
Energy production					X	
Transportation			X			
Tourism/recreation			X			
Industry			X			
Forestry			X			
Rangeland fires			X			
Education			X			
Environment			X			
Ecosystem/biodiversity services			X			
Preparedness – short-term						
Water resources						
Supply adumentation	Mixing fresh & low quality waters					
	Exploiting high-cost waters					
	Adjusting legal and institutional framework	X				0
	Local new standby resources (for emergency)		X			1,2,3,
	Providing permits to exploit additional resources			X		1,2,3,
	Providing drilling equipment					
Demand management	Restricting agricultural uses (rationing, subjecting certain crops to stress...)		X			0
	Restricting municipal uses (lawn irrigation...)	X				1,2,3,4
	Reviewing operations of reservoirs		X			0,1
	Diverting water from given uses	X				1,2,3,4
	Temporary over-drafting aquifiers				X	1,2,3,
	Reviewing water tariffs	X				0

	Rationing water supply		x			0
	Sensitising and awareness campaign		X			0,1,2,3,4
	Adjusting legal and institutional framework		X			0,1,2,3,4
	Negotiating transfer between sectors		x			0
	Dual distribution networks for drinking water supply					3
	Adopting carry-over storage	x				1,2,3,
	Conjunctive use		x			1,2,3
Measures other than supply and demand	Temporary reallocation of water (on basis of assigned use priority)	x	x			0,1,2,3,4
	Decreasing transport and distribution costs	x	x			1,2,3,
	Banning/restricting uses				x	
	Providing emergency supplies	x	x			0,1,2,3,4
	Elaborating set-aside regulations	x				0,1,2,3,
	Inventory of private wells, negotiate purchase of water rights for public use					
	Elaborate regulations on water markets					
	Assess vulnerability & advise water users					
	Elaborate alert procedures		x			0,1,2,3,4
Agriculture						
Crop production	Supplementary irrigation where water can be mobilised and made available on short-term basis			x		2
	Soil water conservation practices		x			0
	Early warning, information and advice to farmers		x			0
	Review of fertilization programme		x			0
	Soil mulching and crop shading		x			0
	Reducing crop density		x			0
	Weeding		x			0
Livestock	Early warning/advice to herders		x			0
	Destocking/incentives for owners to reduce		x			0
	Review available feed and reduce animal numbers		x			0

	Livestock transfer where/when possible		x			0
	Watering points/water hauling sources		x			0
	Locating potential sites of water for emergency		x			0
	Constituting feed stock		x			0
	Adjusting water salinity to tolerable levels		x			0
	Rapid inventory of grazing potential		x			0
	Protective (natural) shelters		x			0
	Alternative feed (by-products, less and unpalatable shrubs..)		x			0
	Supplementary, substitute feed		x			0
Response & recovery						
	Drinking water supply (humans, livestock, wildlife)		x			
	Insurance compensation		x			
	Public aid to compensate loss of revenue				x	
	Tax relief (reduction or delay of payment deadline)		x			
	Rehabilitation/recovery programmes		x			
	Food programmes		x			
	Feed programmes		x			
	Fire control programmes		x			
	Resolving conflicts		x			
	Postponing payment of credits		x			
	Implement set-aside regulations		x			