

Annex C -

Potential institutions for the role of Reference Organisations in DriDanube countries

- Table C1: Austria, Bosnia and Herzegovina
- Table C2: Croatia, Czech Republic
- Table C3: Hungary, Montenegro
- Table C4: Romania, Serbia
- Table C5: Slovakia, Slovenia

Note: National public authorities are also listed among Reference Organisations in the tables below, in case any of them would not be included in national decision-making or national operational level of Optimal drought management model.

Content covered by ROs	Austria	Bosnia and Herzegovina
Environment and nature protection i.e. meteorology, hydrology, wildlife/nature	 The Austrian Meteorological Service (ZAMG) Environment Agency Austria (EEA) University of Natural Resources and Life Sciences (BOKU) Technische Universität Wien (TU Wien) 	 Republic Hydrometeorological Service of Republic Srpska Public institution Water of Srpska, Bijeljina
Climate change	 Federal Ministry for Sustainability and Tourism (BMNT) Environment Agency Austria (EEA) Provincial states e.g. Upper Austria has own strategy for adapting to the Climate change CCCA – Climate Change Centre Austria The Austrian Meteorological Service (ZAMG) University of Natural Resources and Life Sciences - Institue of Meteorology (BOKU) University of Graz - Wegener Center for Climate and Global Change 	 Ministry of Agriculture, Forestry and Water Management Republic of Srpska Republic Hydrometeorological Service of Republic Srpska Ministry for Spatial Planning, Civil Engineering and Ecology
Water resource management i.e. drinking water supply, water rights	 Federal Ministry for Sustainability and Tourism (BMNT) Environment Agency Austria (EEA) Federal Office for Water Management Provincial state governments e.g. Burgenland 	 Ministry of Agriculture, Forestry and Water Management Republic of Srpska Public institution Water of Srpska, Bijeljina
Protection against natural disaster i.e. drought damage evaluation and recovery	 The Federal Ministry of Finance (BMF) Federal Ministry for Sustainability and Tourism (BMNT) 	 Ministry of Agriculture, Forestry and Water Management Republic of Srpska Agricultural institute of RS (MAFWMRS) Agricultural faculty – Institute of agroecology and soil science
Agriculture	 Federal Ministry for Sustainability and Tourism (BMNT) The Agricultural Chamber & Agricultural Chamber of the Provincial States 	 Agriculture department of Ministry of Agriculture, Forestry and Water Management Republic of Srpska Agricultural institute of RS Agricultural faculty
Forestry and forest fire threat	 Federal Ministry for Sustainability and Tourism (BMNT) Austrian Fire department University of Natural Resources and Life Sciences (BOKU) - Institute of Silviculture The Austrian Meteorological Service (ZAMG) Federal Research and Training Centre for Forests, Natural Hazards and Landscape (BFW) Austrian Federal Forestry Office (ÖBf) 	- Forestry department of Ministry of Agriculture, Forestry and Water Management Republic of Srpska
Fishery	 Federal Ministry for Sustainability and Tourism (BMNT) The legislative and executive jurisdiction in fisheries lies with the provinces 	- Ministry of Agriculture, Forestry and Water Management Republic of Srpska
Public health	Austrian Agency for Health and Food Safety (AGES)Provincial state governments	- Ministry of Health and Social Welfare
Energy production	- Federal Ministry for Sustainability and Tourism (BMNT)	- Ministry of Industry, Energy and Mining
Transport and navigation	 Austrian Ministry for Transport, Innovation and Technology (BMVIT) via donau - Austrian Waterways GmbH (state owned); responsible for fairway maintenance, rehabilitation and upgrade 	- Ministry of Transport and Communications
Tourism	- Federal Ministry for Sustainability and Tourism (BMNT)	/
Educational, research, awareness programmes and activities	 Austrian Research Promotion Agency (FFG) Austrian Climate Research Program (ACRP) (Klimafonds) Klimabündnis Österreich Austrian Climate and Energy Fund The Austrian Hail Insurance 	 Ministry of Agriculture, Forestry and Water Management Republic of Srpska Republic Hydrometeorological Service of Republic Srpska Agricultural institute of RS Agricultural faculty Farmers Associations
Other fields	Disaster management: - Disaster subsidies in the provincial states	/

Table C2: Potential institutions for the role of Reference Organisations in Croatia, Czech Republic

Content covered by ROs	Croatia	Czech Republic
Environment and nature protection i.e. meteorology, hydrology, wildlife/nature	 Croatian Meteorological and Hydrological Service (DHMZ) Croatian Waters The Ministry of Environment and Energy (Directorate for Water Management, Directorate for nature protection) Hrvatska Elektroprivreda (HEP Group) – ensuring the biological miminum in case of drought 	 Ministry of the Environment Czech Environment Inspection Agency for Nature and Landscape Conservation Global Change Research Institute of the Czech Academy of Sciences Water Research Institute of T. G. Masaryk, p. r. i. (public research institution) Research institute of Melioration and soil protection, p. r. i., Czech Agricultural University, Prague (several faculties) Mendel University, Brno (several faculties) Institute for Hydrodynamics, AS CR, p. r. i. Czech Technical University, Prague Technical University, Brno - South Bohemia University, České Budějovice Mining University, Ostrava (several faculties) University of Chemical Technology, Prague Charles University, Prague (several faculties) Masaryk University, Brno Faculty of Fisheries and Protection of Waters of the South Bohemia University, České Budějovice
Climate change	 The Ministry of Environment and Energy (Directorate for Water Management, Directorate for Climate Activities, Sustainable Development and Protection of Soil, Air and Sea) 	 Czech Hydrometeorological Institute Institute of Atmospheric Physics, AS CR, p. r. i. (public research institution) Czech Globe –Institute of Global Change Research AS CR, p. r. i.
Water resource management i.e. drinking water supply, water rights	 Croatian Waters National Protection and Rescue Directorate (DRR) Public Water Service Provider Hrvatska Elektroprivreda (HEP Group) 	 Czech Hydrometeorological Institute VltavaRiver Board s. e., (state enterprise) Labe River Board, s. e., Ohře River Board, s. e., Morava River Board, s. e., Odra River Board, s. e., Forests of the Czech Republic, s. e. Drinking Water Suppliers – about 2 860 bodies Owners of the drinking water and sewerage network infrastructure (i.e. municipalities of towns and villages) – about 5 800 subjects State Water Management Authorities at all levels (ministries, regions, districts)
Protection against natural disaster i.e. drought damage evaluation and recovery	 Ministry of Environment and Energy Croatian Waters National Protection and Rescue Directorate (DUZS) Croatian Meteorological and Hydrological Service (DHMZ) Ministry of Agriculture Ministry of Finance 	 Fire brigades at all levels (state, regional) and both the professional and volunteer Ministry of Regional Development Ministry of interior State Material Reserves Administration
Agriculture	 Advisory Service for Agriculture and Forestry Ministry of Agriculture (Directorate for Agriculutre) 	 Ministry of Agriculture Czech Globe –Institute of Global Change Research AS CR, p.r. i. and www.intersucho.cz Crop Research Institute, p.r.i
Forestry and forest fire threat	 Ministry of Agriculture (Directorate for Forestry, Hunting and Wood Industry) Hrvatske šume d.o.o. – State enterprise for forest and woodland management in the Republic of Croatia 	 Ministry of Agriculture Forests of the Czech Republic, s. e., Fire Brigades at all levels Institute for Economic Maintenance of Forests Research Institute on Forest and Game Management, p. r. i.
Fishery	- Ministry of Agriculture (Directorate for Fishery)	 Ministry of Agriculture Fishing Association of the Czech Republic, České Budějovice
Public health	- Ministry of Health - Croatian Institute of Public Health	Ministry of healthState Health Institute, PragueRescue services at all levels
Energy production	 Ministry of Environment and Energy Hrvatska Elektroprivreda (HEP Group) 	 Minstry of industry and Trade State Energy Inspektoreit Energy Regulatory Authority (ERÚ)

Content covered by ROs	Croatia	Czech Republic
Transport and navigation	 Ministry of the Sea, Transport and Infrastructure Agency for Inland Waterways 	Ministry of TraficState Navigation AuthorityWaterway Directorate
Educational, research, awareness programmes and activities	 http://www.stampar.hr/sites/default/files/Aktualno/Do gadjanja/postupanje_u_slucajevima_ekstremnih_vreme nskih_uvjetastampar.pdf 	 These activities are at the beginning following the output of the Conception of protection against consequences of drought for the territory of the Czech Republic (www.eAgri.cz) and which will follow from the amendment to Water Act, which is under preparation. Significant resources are available at www.intersucho.cz and www.czechadapt.cz
Other fields such as tourism, infrastructure	/	1

Table C3: Potential institutions for the role of Reference Organisations in Hungary, Montenegro

Content covered by ROs	Hungary	Montenegro
Environment and nature protection i.e. meteorology, hydrology, wildlife/nature	 Hungarian Meteorological Service (OMSZ) General Directorate of Water Management Ministry of Interior Ministry of Agriculture 	 Institute of Hydrometeorology and seismology EPA Montenegro (Ministry of Sustainable Development and Climate Change)
Climate change	- Ministry for Innovation and Technology	- Directorate for Climate Change (Ministry of Sustainable Development and Climate Change)
Water resource management i.e. drinking water supply, water rights	 General Directorate of Water Management Ministry of Interior 	 Directorate of Emergency and Civil Protection Directorate for Water Management Ministry of Agriculture and Rural Development Directorate for Agriculture and Fisheries
Protection against natural disaster i.e. drought damage evaluation and recovery	 Ministry of Agriculture Hungarian Meteorological Service (OMSZ) National Chamber for Agriculture Research Institute of Agricultural Economy; National Food Chain Safety Office of Hungary(NEBIH); The Hungarian State Treasury, (Complex Agricultural Risk Management System) insurance companies 	- Directorate of Emergency
Agriculture	 Ministry of Agriculture Hungarian Meteorological Service (OMSZ) National Chamber for Agriculture 	 Agriculture Union of Montenegro Local agricultural services and agricultural associations Directorate for Agriculture and Fisheries Ministry of Agriculture and Rural Development
Forestry and forest fire threat	 NEBIH Forestry Authority Ministry of Agriculture National Directorate General for Disaster Management Ministry of Interior 	 Local fire service Directorate for Forestry Ministry of Agriculture and Rural Development Directorate for Emergency and Civil Protection
Fishery	- Ministry of Agriculture	- Directorate for Agriculture and Fisheries
Public health	- Ministry of Human Capacities	- Institute for Public Health
Energy production	- Ministry for Innovation and Technology	Electrical EnterpriseMinistry of Economy
Transport and navigation	- Ministry for Innovation and Technology	- Ministry of Transport
Educational, research, awareness programmes and activities	 The Hungarian Academy of Sciences Faculty of Water Sciences at National University of Public Service in Baja several other Faculties /Universities 	 Biotechnical Faculty The Academy of Science and Art of Montenegro Joint work of UNDP, Institute of Hydrometeorology and Seismology and EPA of Montenegro
Other fields such as tourism, infrastructure	/	/

Table C4: Potential institutions for the role of Reference Organisations in Romania, Serbia.

Content covered by ROs	Romania	Serbia
Environment and nature protection i.e. meteorology, hydrology, wildlife/nature	 Ministry of Environment Danube Delta Biosphere Reserve Administration (DDBRA) National Environment Protection Agency (NEPA) Local Environment Protection Agencies National Environment Guard National Meteorological Administration (NMA) and seven meteorological centres National Institute of Hydrology and Water Management The Ministry of Water and Forests Danube Delta Biosphere Reserve Administration The Ministry of Environment 	 Ministry of Environment Protection Ministry of Agriculture, Forestry and Water Resources Management Republic Hydrometeorological Service of Serbia (RHMSS) Republic Hydrometeorological Service of Serbia
Climate change	The Ministry of Environment	(RHMSS)/South East Virtual Climate Change Center (SEEVCCC) - Ministry of Environment Protection
Water resource management i.e. drinking water supply, water rights	 Local and Country Committees for Emergency Situations General Inspectorate for Emergency Situations Ministry of Internal Affairs (MAI) National Meteorological Administration (NMA) and seven meteorological centres Ministry of Waters and Forests National Administration 'Romanian Waters' (ANAR) and Water Basin Authorities (Directorates) National System for Hail Suppression and Rainfall Enhancement National Institute of Hydrology and Water Management (NIHWM) ISPIF (National Institute for Irrigation and Land Reclamation) 	 Ministry of Agriculture, Forestry and Water Resources Management Ministry of Environment Protection Ministry of Interior / Sector for Emergency Management Public Enterprises JP 'Srbijavode' (with water management centres at the rivers Danube, Sava and Morava) and JP 'Vode Vojvodine'
Protection against natural disaster i.e. drought damage evaluation and recovery	 Local and Country Committees for Emergency Situations; General Inspectorate for Emergency Situations Ministry of Internal Affairs (MAI) Ministry of Agriculture and Rural Developement (MADR) Association of Agricultural Producers' Associations in Romania (LAPAR) International Bank for Reconstruction and Development Agency for Rural Investment Financing 	 Ministry of Interior / Sector for Emergency Management Ministry of Agriculture, Forestry and Water Management Ministry of Construction, Transport and Infrastructure; Public Enterprises (JP 'Srbijavode'; JP 'Vode Vojvodine'; JP 'Srbijasume') Red cross Serbia Statistical Office of the Republic of Serbia
Agriculture	 Ministry of Agriculture and Rural Development (MADR) Agro-meteorological Department of The National Meteorological Administration (NMA) Country Agricultural Directorates and Community Council 	 Ministry of Agriculture, Forestry and Water Resources Management Ministry of Finance The Institute of Agricultural Economics Chamber of Commerce and Industry of Serbia Republic Directorate for Commodity Reserves
Forestry and forest fire threat	 Ministry of Waters and Forests Ministry of Agriculture and Rural Development (MADR) National Forest Administration – Romsilva (RNP – Romsilva) Ministry of Agriculture and Rural Development (MADR) -> County Agricultural Directorates Department of Water, Forestry and Fisher 	 Ministry of Agriculture, Forestry and Water Resources Management Ministry of Interior / Sector for Emergency Management Public Enterprise JP 'Srbijasume'
Fishery	 Ministry of Agriculture and Rural Development (MADR) General Directorate for Fisheries –Management Authority for FOP National Company for Administration Fisheries Fund Danube Delta Biosphere Reserve Administration 	 Ministry of Agriculture, Forestry and Water Resources Management Republic Water Directorate

Content covered by ROs	Romania	Serbia
Public health	 Ministry of Health National Authority for Quality Management in Health Care District public health authorities (DPHAs) represent the Ministry of Health at the local level. 	 Ministry of Health Institute of Public Health of Serbia "Dr Milan Jovanović Batut"
Energy production	Ministry of EnergyThe Romanian Energy Regulatory Authority (ANRE)National Environmental Protection Agency.	 Ministry of Energy and Mining Public Enterprise 'Electric power industry of Serbia'
Transport and navigation	 Ministry of Transport Romanian National Company of Motorways and National Roads – RNCMNR; Romanian Automotive Register – RAR Romanian Road Authority – ARR Romanian Air Force - Meteorological Service 	 Ministry of Construction, Transport and Infrastructure Directorate for Inland Waterways
Educational, research, awareness programmes and activities	 Ministry of National Education National Institute of Research and Development for Environmental Protection Ministry of Agriculture and Rural Development Country Agricultural Directorates and Community Council Institute of Danube Delta Research ICPA (National Research Institute Soil and Agriculture) ISPIF (National Institute for Irrigation and Land Reclamation) 	- various Faculties within the University of Belgrade, Novi Sad, Nis and Kragujevac
Other fields such as tourism, infrastructure	Tourism: - Ministry of Tourism - National Tourism Authority (NTA) Construction and infrastructure: - Ministry of Transport - IGFCOT (Military Geographic and Cartographic Institute)	Tourism: - Ministry of Trade, Tourism and Telecommunications

Table C5: Potential institutions for the role of Reference Organisations in Slovakia, Slovenia

Content covered by ROs	Slovakia	Slovenia
Environment and nature protection i.e. meteorology, hydrology, wildlife/nature	 Slovak Hydrometeorological Institute (SHMU) State Nature Conservation Agency (ŠOP SR) 	 Slovenian Environment Agency (ARSO) Slovenian Water Agency (DRSV) Ministry of the Environment and Spatial Planning (MOP) Institute of the Republic Slovenia for Nature Conservation (ZRSVN)
Climate change	 The Ministry of the Environment Slovak Hydrometeorological Institute (SHMU) Faculty of Physics, Mathematics and Informatics of the Comenius University in Bratislava 	 Slovenian Environment Agency (ARSO) Ministry of the Environment and Spatial Planning (MOP) Ministry of Infrastructure (MI)
Water resource management i.e. drinking water supply, water rights	 Water supply companies municipalities Slovak Hydrometeorological Institute (SHMU) Slovak Water Management Enterprise (SVP, š.p.) Water Research Institute (VÚVH) Water construction Company (VV, š.p.) State Geological Institute (ŠGÚDŠ) Commission for the Approval of Groundwater Basins (KKZZ) State Water Administration - District Offices at the Regional Headquarters 	 Slovenian Environment Agency (ARSO) Slovenian Water Agency (DRSV) Ministry of the Environment and Spatial Planning (MOP) Chamber of Communal Economy (ZKG) Chamber of Commerce and Industry of Slovenia (GZS), Hydro power plants Public water utilities (at municipal level) Association of Municipalities and Towns of Slovenia (SOS) Slovenian National Committee on Irrigation and Drainage Vodnogospodarski biro Maribor
Protection against natural disaster i.e. drought damage evaluation and recovery	 Ministry of Interior of the Slovak Republic Slovak Hydrometeorological Institut (SMHU) Ministry of Agriculture and Rural Development The State Enterprise Hydromelioracie Slovak Water Management Enterprise (SVP, š.p.) State Water Administration 	 Ministry of Finance (MF) Ministry of Defence (MO) Administration of RS for Civil Protection and Disaster Relief (URSZR) Statistical Office of RS (SURS)
Agriculture	 Slovak Hydrometeorological Institute (SHMU) National Agricultural and Food Centre Central Control and Testing Institute in Agriculture Regional Agricultural and Food Chambers Agricultural Paying Agency 	 Ministry of Agriculture, Forestry and Food (MKGP) Slovenian Environment Agency (ARSO) Chamber of Agriculture and Forestry of Slovenia (and its 13 local units) (KGZS) Agricultural institute of Slovenia Slovenian Institute of Hop Research and Brewing Fruit and vegetable centres
Forestry and forest fire threat	 Slovak Hydrometeorological Institute (SHMU); National Forest Centre; State enterprise Forests of the Slovak Republic Agricultural Paying Agency District Forest Offices 	 Ministry of Agriculture, Forestry and Food (MKGP) Slovenian Forestry Institute (GIS) Slovenian Forest Service (ZGS)
Fishery	 Slovak Fishery Association The State Veterinary and Food Administration of the Slovak Republic 	 Ministry of Agriculture, Forestry and Food (MKGP)- Fisheries Division Fisheries Research Institute of Slovenia (ZZRS) Fishing families
Public health	Ministry of Health of Slovak RepublicPublic Health Authority of the Slovak Republicmunicipalities	 National Institute of Public Health (NIJZ), Slovenian Environment Agency (ARSO) – environment indicators
Energy production	 Slovak Water Management Enterprise (development of disponibile water sources for energy, including water for cooling – nuclear power, ect.) 	 Ministry of Economic Development and Technology (MGRT) Nuclear Power Plant Krško (NEK)
Transport and navigation	 Inland waterway division of the Transport Authority – warn of low flows at monitored waterways. It does not prohibit the sail on the waterways as it is in the case of floods, ice drift etc. Slovak Hydrometeorological Institute (SHMU) – provide hydrological data and warnings 	/
Educational, research, awareness programmes and activities	 Slovak Research and Development Agency (APPV) H2020 Slovak Environment Agency Ministry of Education, Science, Research and Sport of the Slovak Republic 	 Ministry of Education, Science and Sport (MIZŠ), Faculties in field of environment, science and environmental engineering: Faculty of Mathematic and Physics (FMF) - meteorology; Faculty of Civil and

Content covered by ROs	Slovakia	Slovenia
	- Several Universities (Faculties)	Geodetic Engineering (FGG)-water; Biotechnical faculty (BF)-agronomy - Agricultural advisory service (within KGZS) - GWP Slovenia - Research Centre of the Slovenian Academy of Science and Arts - Landscape Governance College GRM, Novo mesto
Other fields such as tourism, infrastructure		Tourism: - Ministry of Economic Development and Technology (MGRT) National Security: - Ministry of Defence (MO)