

Questionnaire for Dareffort project, supporting WP3, WP4 and WP5 information gathering

1. Welcome to the questionnaire for Dareffort project!

In the DAREFFORT project, Work Package #3 team is responsible for evaluating the ice and flood forecast methodologies of the participating countries, before suggesting a unified and mutually agreed list of datas that all data providers are capable of providing.

For this, WP3 leaders prepared a questionnaire to be filled out by all participating data providers. You will find a PDF named "Dareffort-Questionnaire.pdf" on the project FTP server, so you can preview the questionnaire and collect all needed information for filling it out this online questionnaire. You can save your work and return to it later from the same computer (it recognises IP addresses, so please don't delete cache and browser history until you're finished, or you'll have to re-start).

Finishing the questionnaire will take approximately 30-45 minutes. If you only wish to fill out one part of the survey, you can choose the needed part on the next page.

Should you have any questions, please do not hesitate to contact the communication team at this e-mail: peter.juhasz@buzzword.hu

IMPORTANT! Your answers will only be saved if you click on "NEXT" at the bottom of the pages. (So your progress will be saved with each completed section, if you push "NEXT") If you, for any reason, leave the survey in the middle of a page/section, the current page won't be saved!

Please complete it until 31st January!

1. Country

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2. Choose which part you would like to fill out!

Choose which part you would like to fill out! If you wish to fill out all three parts you can skip this question altogether.

2. Which part do you want to fill out?

- HYDROLOGICAL DATA
- METEOROLOGICAL DATA
- NATIONAL HYDROLOGICAL FORECASTING SERVICE

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3. **HYDROLOGICAL DATA** - Data provider information

3. Name

4. Organisation

5. Position

6. E-mail

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4. Hydrological data - Hydrological network

7. How many hydrological stations are in operation in the Danube River Basin in your country?

8. How many hydrological stations are in operation and connected on-line in the Danube river basin in your country?

9. How many hydrological stations will be considered in the Danube HIS from your country?

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5. Hydrological data - Flood data

10. Do you have any historical flood event reports?

Yes

No

11. Do you have any maps with flood contour lines?

Yes

No

12. Do you have any maps with flood contour lines of historical flood events?

Yes

No

13. If Yes, for which year

14. Do you have maps with flood contour lines of design floods?

Yes

No

15. If Yes, for which return period

10

500

20

1000

50

10 000

100

Other (please specify)

16. What other information is provided in the flood maps?

water discharge

water level

ice impact

local flash floods

Other (please specify)

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6. Hydrological data - Ice data

17. Do you have flood event reports?

- Yes
- No

18. What information is provided concerning ice events?

- % of surface covered by ice
- thickness of ice cover
- duration of ice cover
- Other (please specify)

19. Do you have ice maps?

- Yes
- No

20. What other data are provided in the flood maps?

- % of surface covered by ice
- thickness of ice cover
- duration of ice cover
- Other (please specify)

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7. Hydrological data - GIS System

21. Which GIS system do you use in general?

- ArcView
- QuantumGIS
- MapInfo
- none
- Other (please specify)

22. Which coordinate system do you use in your GIS system?

- ETRS89 / LAEA Europe
- ETRS89 / UTM_31N
- ETRS89 / UTM_32N
- ETRS89 / UTM_33N
- ETRS89 / UTM_34N
- ETRS89 / UTM_35N
- WGS84/ Geographic
- Other (please specify)

23. What parameters are used to describe catchments?

- elevation
- land cover
- geology
- soil
- Other (please specify)

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8. Hydrological data - Data management and data formats / Data flow, data control and data processing

24. Which is the operating system of the server that collects the data from the stations (e.g. Linux)?

- Microsoft Windows Server
- Red Hat Enterprise Linux Server
- Ubuntu Server
- SUSE Enterprise Linux Server
- Oracle Linux Server
- Other (please specify)

25. What kind of a database are the hydrological data stored in?

- Relational Database Management System (MS SQL Server, Oracle, PostgreSQL, other)
- Object-oriented Database Management System
- Other (please specify)

26. Which data formats do you use to transfer the measured values?

- CSV
- formatted TXT
- HTML Document
- XML
- XLS
- XLSX
- DBF
- Other (please specify)

27. What is the frequency of data updating on the collecting server?

- once per minute
- once per hour
- Other (please specify)

28. Do you use real-time automatic and/or manual data quality control procedures?

- Yes
- No

29. In which time zone is the data provided?

- UTC
- CET
- EET
- Other (please specify)

9. Hydrological data - National Data Exchange / Data availability

30. Are there procedures for national data exchange?

- Yes
 No

31. Are there any existing restrictions on data access?

- Yes
 No

32. What is the update frequency of the data exchange?

- Real time
 hourly
 daily
 Other (please specify)

33. Is there a public website to provide information about water / flood data?

- Yes
 No

34. URL of the public website, if available?

35. What hydrological data are available on the public website?

- water level
 discharge
 water temperature
 water quality
 sediment transport
 ice cover
 Other (please specify)

10. Hydrological data - International Data Exchange / Data availability

36. Are there any procedures for international data exchange?

- Yes
 No

37. How are data exchanged?

- web
 email
 Other (please specify)

38. Are there restrictions on data access?

- Yes
 No

39. What is the updating frequency of the data exchange?

- hourly
 daily
 Other (please specify)

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11. Hydrological data - Education and training of personnel (E-learning tool)

40. Do you consider that an online learning tool could help you to solve some of the problems related to the personnel training?

- Yes
 No

41. If yes, please indicate what format/structure you will recommend for the E-learning material:

- standard university course format
- short synthesis presentation documents for three specific levels (beginner, medium, experts) with extensive collection of references to technical documents for details on different topics, and which will be also made available in electronic format
- Other (please specify)

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12. **METEOROLOGICAL DATA** - Data provider information

42. Name

43. Organisation

44. Position

45. E-mail

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13. Meteorological data - Meteorological network

46. How many meteorological stations are in operation in the Danube River Basin in your country?

47. How many stations are connected online with a forecast centre in your country?

48. How many stations should be considered in the Danube HIS from your country?

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14. Meteorological data - Meteorological data information

49. Are meteorological data available as gridded data?

Yes

No

50. What is the frequency of updating the gridded data?

once per minute

once per hour

Other (please specify)

51. What is the frequency of updating the measured data on the server?

once per minute

once per hour

Other (please specify)

52. In which time zone is the data provided?

UTC

CET

EET

Other (please specify)

53. At how many meteorological stations do you measure real evapotranspiration?

54. At how many meteorological stations do you measure potential evapotranspiration?

55. At how many meteorological stations do you measure snowfall?

56. At how many meteorological stations do you measure snow water equivalent?

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15. Meteorological data - GIS System

57. Which GIS system do you use?

- ArcView
- QuantumGIS
- MapInfo
- none
- Other (please specify)

58. Which coordinate system do you use in your GIS system?

- ETRS89 / LAEA Europe
- ETRS89 / UTM_31N
- ETRS89 / UTM_32N
- ETRS89 / UTM_33N
- ETRS89 / UTM_34N
- ETRS89 / UTM_35N
- WGS84/ Geographic
- Other (please specify)

59. Which meteorological data are available in GIS?

- temperature
- humidity
- precipitation
- precipitation type
- snow cover
- air quality
- Other (please specify)

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16. Meteorological data - Data management and data formats / Data flow, data control and data processing

60. Are there data developed by meteorological numerical forecasts available?

- Yes
- No

61. If yes how much time in advance does the meteorological forecast provide data?

how many hours

how many days

62. In what frequency are the modelled data updated on the server?

- once per minute
- once per hour
- Other (please specify)

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17. Meteorological data - National Data Exchange / Data availability

63. Are there procedures for national data exchange?

- Yes
- No

64. Are there existing restrictions on data access?

- Yes
- No

65. What is the update frequency of the data exchange?

- real time
- hourly
- daily
- Other (please specify)

66. Is there a public website to provide information about meteorological data?

- Yes
- No

67. URL of the public website, if available:

68. What meteorological data are available on the public website?

- air temperature
- humidity
- precipitation
- precipitation type
- snow cover
- air quality
- Other (please specify)

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18. Meteorological data - International Data Exchange / Data availability

69. Are there any procedures for international data exchange?

Yes

No

70. How are the data exchanged?

by web

e-mail

Other (please specify)

71. Are there any restrictions on data access?

Yes

No

72. What is the updating frequency of the data exchange?

real time

hourly

daily

Other (please specify)

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19. Meteorological data - Education and training of personnel (E-learning tool)

73. Do you consider that an online learning tool could help you to solve some of the problems related to the personnel training?

Yes

No

74. If yes, please indicate what format/structure you will recommend for the E-learning material:

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- Other (please specify)

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20. NATIONAL HYDROLOGICAL FORECASTING SERVICE - Contact of national hydrological forecasting service

75. Name

76. Organisation

77. Position

78. E-mail

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21. National hydr. forecast. serv. - Collaboration with the national meteorological forecasting service

79. What data are provided by the national meteorological forecasting service?

- precipitation
- air temperature
- humidity
- snow cover depth
- snow water equivalent
- wind
- Other (please specify)

80. In what frequency are the data provided?

- real time
- hourly
- daily
- Other (please specify)

81. Are all-meteorological data for hydrological forecasting available?

- Yes
- No

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22. National hydr. forecast. serv. - Collab. with the neighbouring countries and international sources

82. Are there any data from neighbouring countries used in the national forecasting model?

- Yes
- No

83. Are there any procedures for data exchange?

- Yes
- No

84. What is the data exchange frequency?

- real time
 hourly
 daily
 Other (please specify)

85. Does the forecasting service use data from international data sources?

- Yes
 No

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23. National hydr. forecast. serv. - Dissemination of hydrological forecasts and warnings

86. How are hydrological forecasts disseminated?

- On-line
 e-mail
 other media

87. Is there a public website to provide information about hydrological forecasts?

- Yes
 No

88. URL of public website that provides info. about hydrological forecasts:

89. In what frequency is the forecast information disseminated?

- real time
 once per minute
 hourly
 more than once a day
 daily
 Other (please specify)

90. Is there a data exchange server available?

- Yes
 No

91. Are there any restrictions on accessing forecast data?

- Yes
 No

92. Which institutions have access to hydrological forecasts?

- Hydrological, meteorological and water management services
 HPP operators
 civil protection
 rescue units and others
 data are publicly available
 Other (please specify)

93. Is the forecast service responsible to proclaim emergency?

- Yes
 No

94. Do you estimate forecast efficiency?

- Yes
 No

95. Do you estimate warnings efficiency?

- Yes
 No

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24. National hydr. forecast. serv. - The process of the hydrological forecasting

96. How many models are used for hydrological forecasting?

97. Do you collaborate with other regions and/or countries to do Danube-related hydrological forecasting?

- Yes
 No

98. Is additional information used in hydrological forecasting practices in your country?

- Yes
 No

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25. National hydr. forecast. serv. - Relations with stakeholders

(special forecast reports, requirements, needs, wishes)

99. Are stakeholders involved in flood (and ice) management in your country?

- Yes
 No

100. Do you generate reports for the stakeholders?

- Yes
 No

101. If yes, on which legal basis?

- by law
 internal regulation
 commercial arrangements
 Other (please specify)

102. Are there any general and special requirements to fill in the reports?

- Yes
 No

103. Are there any additional requirements / needs / wishes to consider in the future development?

- Yes
 No

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26. National hydr. forecast. serv. - Flood data (hydrological forecast)

104. Do you have any historical flood event reports?

- Yes
 No

105. Do you have any maps with flood contour lines?

- Yes
 No

106. If yes, do you have any maps with flood contour lines of historical flood events?

- Yes
 No

107. If yes, for which year:

108. Do you have maps with flood contour lines of design floods?

- Yes
 No

109. If Yes, for which return period:

- 10
 20
 50
 100
 500
 1000
 10.000
 Other (please specify)

110. What other information is provided in the flood maps?

- water velocity
- water depth
- Other (please specify)

111. What flood scenario is the most important for you concerning your forecasting?

- water discharge
- water level
- ice impact
- local flash floods
- Other (please specify)

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27. National hydr. forecast. serv. - Perspective in development

(Needs for further development, short- and long-term plans, etc.)

112. Are there any plans to modify or develop the IT system or data formats in the near future (next 3 years)?

- Yes
- No

113. Are there any plans to modify or develop the data measurement and collection for forecasting purposes?

- Yes
- No

114. Are there any wishes or suggestions for additional or improved cooperation with other countries?

- Yes
- No

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28. National hydr. forecast. serv. - Education and training of personnel (E-learning tool)

115. Do you consider that an online learning tool could help you to solve some of the problems related to the personnel training?

Yes

No

116. If yes, please indicate what format/structure you will recommend for the E-learning material:

standard university course format

short synthesis presentation documents for three specific levels (beginner, medium, experts) with extensive collection of references to technical documents for details on different topics, and which will be also made available in electronic format

Other (please specify)