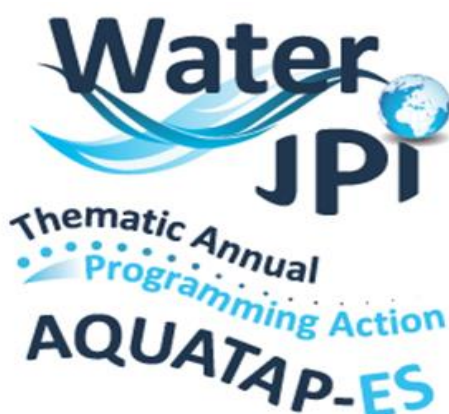




**WaterWorks 2015–2020 in Support of the Water JPI
ERA-Net Cofund Action**



**Proceedings from the 3rd
Thematic Annual Programming (TAP) AQUATAP-ES Workshop Part II**

**“Developing Approaches for Assessing and Optimising the Value of
Ecosystem Services”**

(WP7, Task 7.3)

8th October 2020



OUTPUT SUMMARY	
Project Information	
Project Title:	Water Works 2016–2020 in Support of the Water JPI (WaterWorks2015) – Sustainable water use in agriculture, to increase water use efficiency and reduce soil and water pollution
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Call Identifier:	WATER-3-2015: Stepping up EU research and innovation cooperation in the water area
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Starting Date:	01/01/2016
End Date:	31/12/2020
Website Address:	http://www.waterjpi.eu/
Coordinator:	Maurice Heral
Management Team:	Juliette Arabi, Véronique Briquet-Laugier, Simon Coulet, Armelle Montrose, Elcin Sarikaya, Larissa Vargas.
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Deliverable Title:	3rd Part II TAP AQUATAP-ES Workshop 2020
Deliverable Number:	Internal deliverable
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Disclaimer

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Abbreviations

AEI	Agencia Estatal de Investigación
AKA	Academy of Finland (AKA)
ANR	French National Research Agency
DSS	Decision support system
EC	European Commission
ES	Ecosystem services
ESP	Ecosystem Services Partnership
EU	European Union
JPI	Joint Programming Initiative
MARS	Managing Aquatic Ecosystems and Water Resources under Multiple Stress
RDI	Research, development and innovation
SRIA	Strategic Research and Innovation Agenda
TAP	Thematic Annual Programming
UCD	University College Dublin

Executive Summary

The Water Joint Programming Initiative (JPI), “[Water Challenges for a Changing World](#)” (www.waterjpi.eu), was launched following a decision of the Competitiveness Council of the European Union (EU) on 6 December 2011.¹ In June 2020, the Water JPI membership included 23 member countries and three observer countries, which collectively represented 88% of European public research, development and innovation investment in water resources. The Water JPI is dedicated to tackling the ambitious grand challenge of achieving “[sustainable water systems for a sustainable economy in Europe and abroad](#)”.

This report contains the proceedings of the second half of the Water JPI 3rd Thematic Annual Programming (TAP) AQUATAP-ES Workshop on “**Developing Approaches for Assessing and Optimising the Value of Ecosystem Services**”. The establishment of a TAP action is one of the additional activities of the ERA-Net Cofund programme WaterWorks2015.

The aim of the Water JPI TAP is to build a **network of national projects** focused on a network or cluster of excellence of **selected research groups** that is targeted at stakeholders. The network will, within a specific research area, establish a critical mass of research and technological excellence, the integration and sharing of knowledge, infrastructures, data and modelling tools, training and capacity building, in addition to improved communication and networking with stakeholders and the scientific community. This cluster will allow coordination between the individual projects and lead to a greater impact at the European level, addressing research gaps and avoiding duplication.

The half-day virtual workshop was held on 8th October 2020, with updates relating to mid-term outputs. Thirteen members from seven countries attended the workshop, made up of the existing AQUATAP-ES network group, members of the steering committee and the wider community of the Water JPI. All of the presentations are available on the Water JPI website: [Part II 3rd AQUATAP-ES workshop Ecosystem Services Decision Support Tools October 2020](#). The first part of discussion focussed on the aquatic ecosystems services data and modelling needs survey, the drafting of a paper based on analysis of this survey results for publication and the draft catalogue of models used in ecosystem services assessment. Based on the survey analysis presented, members agreed to update the survey originally circulated in June 2020, to further highlight coastal and marine ecosystems and recirculate the survey to key national policy makers in particular, as again there was a low response from this highly influential stakeholder group. The WW2015 Secretariat agreed to circulate to other JPIs (Oceans, FACCE) and to the Water JPI Governing and Advisory Boards. Steering committee members agreed to further circulate it to key policy makers. The feedback from the survey will form the basis of the paper being drafted for publication. During the 2nd part, the focus and workings of the workshop centred on decision support systems (DSSs) and tools and the brief guidance the network plan to develop as a final output. This work will progress in earnest in early 2021.

This workshop demonstrated the increase in outputs achieved by the network participants as they work together and further develop the activities in the AQUATAP-ES implementation plan. The policy brief is finalised and drafting of other major outputs is well underway.

¹ [Council conclusions](#) on the launching of the JPIs on “Healthy and Productive Seas and Oceans”, “Urban Europe – Global Urban Challenges, Joint European Solutions”, “Connecting Climate Knowledge for Europe”, “Water Challenges for a Changing World” and “The Microbial Challenge – An Emerging Threat to Human Health” – Adoption 17424/11 of 29 November 2011.

1. Introduction

1.1. Water Joint Programming Initiative

Over the past few decades, several policies and research, development and innovation (RDI) activities have been put in place to protect water resources. Despite these efforts, many regions in Europe still face water scarcity and/or water quality problems. Climate change, groundwater over-abstraction and diffuse pollution are, among others, the main factors influencing water availability and quality. If no action is taken, their impact will be even greater in the years to come. Guaranteeing a sustainable supply of good-quality water should be a priority for European society. Both policies and RDI activities should therefore contribute to this aim. Water supply for the development of various activities (agriculture, energy production, public services, etc.) also needs to be ensured to benefit the economic prosperity of the European Union (EU).

The Water Joint Programming Initiative (JPI), “[Water Challenges for a Changing World](http://www.waterjpi.eu)” (www.waterjpi.eu), has recently published its new Water JPI Vision 2030 and Strategic Research and Innovation Agenda (SRIA) 2025. *Water JPI Vision 2030: Together for a Water-secure World* outlines what the Water JPI aims to achieve during the next 10-year period (to 2030) and sets out the roadmap for all Water JPI activities, taking into account the main trends, key drivers and challenges in relation to our water resources (**Figure 1**).

The *Water JPI Strategic Research and Innovation Agenda 2025* is the 5-year reference base, highlighting the range and direction of all Water JPI activities for that period, which will be delivered through the Water JPI implementation plan. The SRIA 2025 has been developed to guide future water-related RDI actions. It sets out specific research themes, sub-themes and priorities. These research priorities can then be considered by various stakeholders, such as researchers, regulatory agencies, policymakers, industry and the public. Four core themes will drive this agenda: (1) ecosystems, (2) health and wellbeing, (3) water value and usage and (4) sustainable water management.

Identifying research gaps and topics, as well as the means of implementation (e.g. joint actions, via calls or networks), will be prioritised and an agreed implementation plan will be developed, detailing joint actions. The Water JPI will act as a facilitator of cooperation between countries on water research, supporting European and international water and environmental policy by coordinating and funding research on existing and emerging problems to come up with feasible solutions.

By June 2020, this initiative had brought together 23 partner countries, the European Commission (EC) and three observer countries. The international cooperation dimension of the first Water JPI implementation actions included Israel, Norway, the Republic of Moldova, South Africa and Turkey (full Water JPI members), as well as two additional Horizon 2020-associated countries (Egypt and Tunisia) and three international partners (Brazil, Canada and Taiwan).

1.2. ERA-Net Cofund Programme WaterWorks2015

Within the ERA-Net Cofund programme WaterWorks2015, Work Package 7 focuses on Water JPI alignment activities. Alignment should enable the optimal use of national research funds.

WaterWorks2015 is an EC-funded ERA-Net Cofund action supporting the development of the first Water JPI Thematic Annual Programming (TAP) (Work Package 7, Task 7.3). The TAP is one of the tools of alignment. It is being developed by the Water JPI for further alignment, particularly of national RDI programmes and projects related to water challenges.

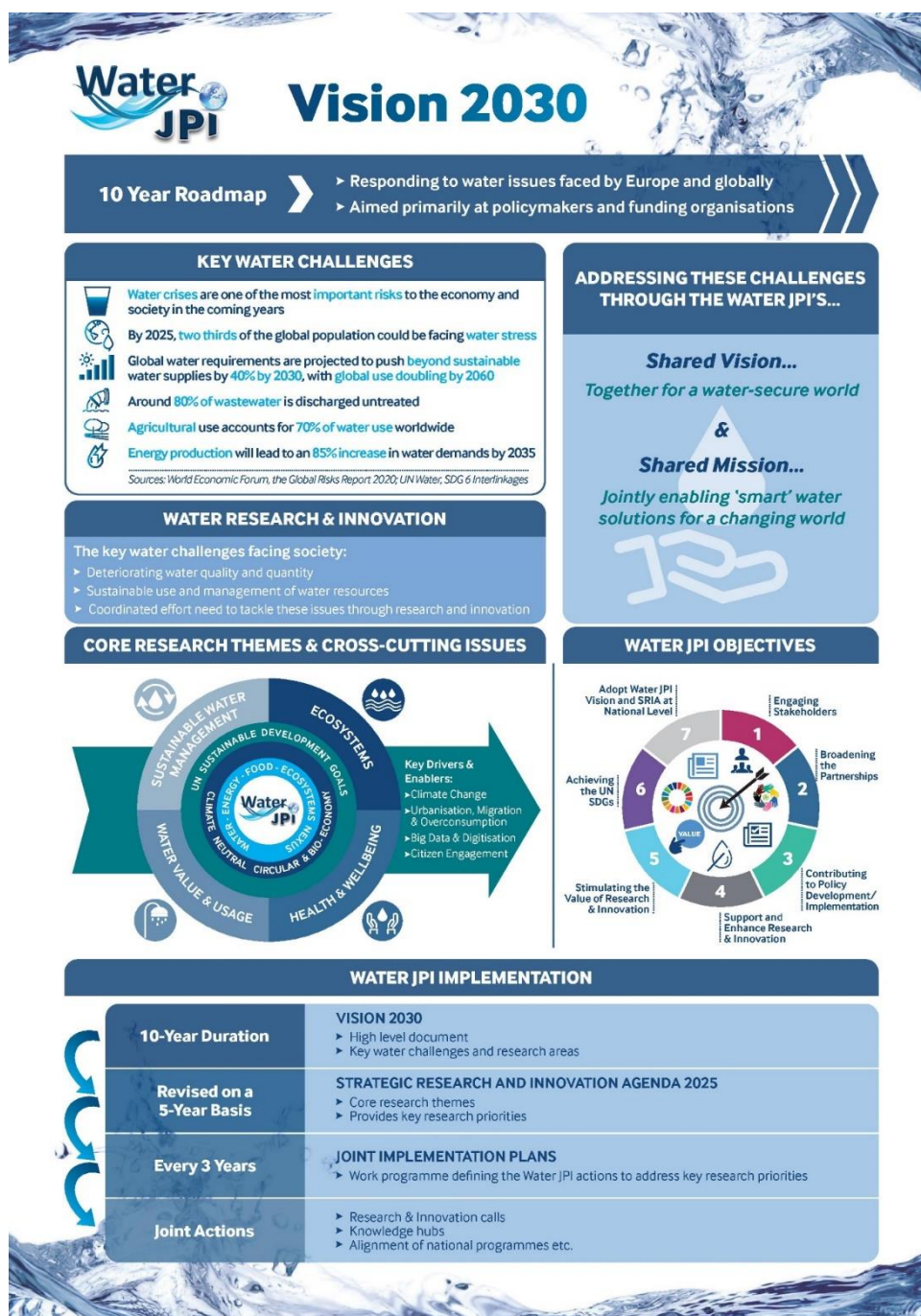


Figure 1: Water JPI Vision 2030 – infographic

To achieve the appropriate implementation of all relevant policies and protect the health of citizens, the Water JPI elaborates on further RDI actions that should be undertaken in the area of ecosystem services (ES). The topic of the first Water JPI TAP action is SRIA subtheme 1.1, “Developing Approaches for Assessing and Optimising the Value of Ecosystem Services”. Participation in the TAP action is not limited to WaterWorks2015 partners but is open to all funders of the Water JPI community and is voluntary. Along with Knowledge Hubs, it is part of the clustering/networking activities of the Water JPI and its related SRIA themes. This action will run for 24 months, i.e. from June 2019 until June 2021.

The national research funding agencies participating in this action are from Finland, Ireland, the Netherlands and Spain. The TAP, now referred to as AQUATAP-ES, is overseen by a steering committee consisting of the Water JPI coordination and the funding partners of the projects involved.

The first workshop of the Water JPI AQUATAP-ES TAP on ecosystem services took place on 12 June 2019 in Dublin, Ireland. Attendees at the workshop included the first TAP researchers, funding partners, members of TAP actions from other JPIs and the wider Water JPI community. This provided an opportunity for participants to meet each other and discuss the purpose of the Water JPI, to gain an understanding of the projects and teams involved in the AQUATAP-ES TAP, and to identify synergies and outputs that would inform the TAP Implementation Plan [1st Water JPI AQUATAP-ES workshop](#).

The second workshop of the AQUATAP-ES TAP [2nd Water JPI AQUATAP-ES workshop](#) aimed to define relevant stakeholders and appropriate indicators to measure the impact of the AQUATAP-ES. The network also worked on drafting a policy brief. This was held in Brussels on November 19th 2019.

Part I of the 3rd workshop, took place virtually on June 16th 2020, centred around initiating work on the medium-term goals around data and modelling needs. DSS developments were introduced in the context of “setting the scene” for Part II of the workshop, which took place 8th October 2020. [Part I 3rd Water JPI AQUATAP-ES workshop](#).

1.3. Aims of this Report

This report contains the proceedings of the second part of the third TAP AQUATAP-ES Workshop held online on 8th October 2020. This report has been prepared based workshop discussions, advance feedback received, on the presentations and notes provided by the facilitators and WaterWorks2015 Secretariat and includes feedback received from the attendees on the draft version of this document. All presentations, as well as the workshop documentation, are available from the Water JPI website [Part II 3rd AQUATAP-ES workshop Ecosystem Services Decision Support Tools October 2020](#).

2. Methodology

The workshop was organised by the Environmental Protection Agency (EPA) Ireland, with the support of the AQUATAP-ES Scientific Coordinator Prof. José María Bodoque del Pozo, University of Castilla-La Mancha, Spain.

2.1. Workshop Aims and Objectives

The third workshop part II focussed on the aquatic ecosystems services data and modelling needs survey results, the drafting of a paper based on the analysis of this survey for publication and the draft model catalogue and finalising the policy brief. An in-depth discussion was held on the development of a guidance brief for ecosystem services DSS.

The objectives of this workshop were as follows:

- Discuss the results from the survey on key data to characterize ES.
- Discuss the draft model catalogue and agree on design and content.
- Approve the final version of the policy brief.
- Discuss the structure of a guidance document for Ecosystem Services DSS tool.

The workshop was opened with a welcome from the Water JPI AQUATAP-ES facilitator, followed by two sessions focusing on the mid-term outputs and the DDS tool guidance; with a closing session that included a brief summary and an outline of next steps.

2.2. Workshop Attendees

A total of 13 people attended the workshop, including representatives from the six TAP projects from seven different countries. The AQUATAP-ES steering committee members from two countries also attended. [Annex 1](#) provides a list of all attendees.

2.3. Workshop Programme

The workshop programme is available in [Annex 2](#). The workshop included one plenary session and one discussion session. It was designed to stimulate open discussions and further development of outputs among the participants, the members of the expert group within the network.

2.3.1. Part I: Plenary Session – Water JPI AQUATAP-ES Mid-term deliverables

The plenary session was chaired by **Lisa Sheils (AQUATAP-ES Facilitator and EPA)**, who provided an opening welcome. **José María Bodoque del Pozo (AQUATAP-ES Scientific Coordinator and University of Castilla-La Mancha, Spain)** outlined the aims of the workshop and reflected on the network's mid-term goals and achievements to date. José presented the results from the ES data needs survey and the draft paper. **Micheal Bruen (University College Dublin, Ireland)**, discussed the draft modelling catalogue developed in collaboration with José. **Mary Kelly-Quinn (University College Dublin, Ireland)** illustrated the final version of the updated policy brief.

Part I: Updates on Mid-term achievements.

- **Data:** Results from the Data Needs Survey and next steps (José María Bodoque del Pozo, UCLaM).
- Drafting a Paper on Ecosystem Services data needs (José María Bodoque del Pozo, UCLaM).
- **Modelling:** Update on the Catalogue of Ecosystem Services models (Michael Bruen, UCD).
- **Final Policy Brief & Update on ESP** (Mary Kelly-Quinn, UCD).

2.3.2. Part II: Workshop Session - Guidance on developing decision-support tools

Christian Feld (University of Duisberg-Essen, Germany), presented the DSS and tools and invited attendees to discuss on the structure of the guidance document for Ecosystem Services DSS tool.

Part II: Guidance on developing decision support tools

- **Decision Support Tools Guidance** for Ecosystems services (Christian Feld, University of Duisberg-Essen, Germany).

Christian opened up a detailed session based on four key questions.

1. What decisions need support in water management?
2. Who is the end user of decision support tools?
3. What should the Guidance contain and look like?
4. What are the next steps to deliver a brief?

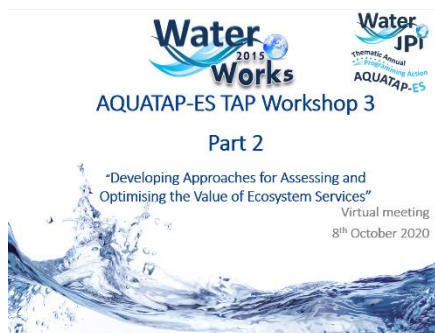
2.3.3. Part III: Next Steps

Lisa Sheils (AQUATAP-ES Steering Committee Chair and EPA) facilitated Part III of the workshop. Lisa closed the workshop with a discussion on the next steps and “who leads on what actions”.

3. Proceedings

3.1. Welcome and Part I: Plenary Session – Water JPI AQUATAP-ES Mid-term Results

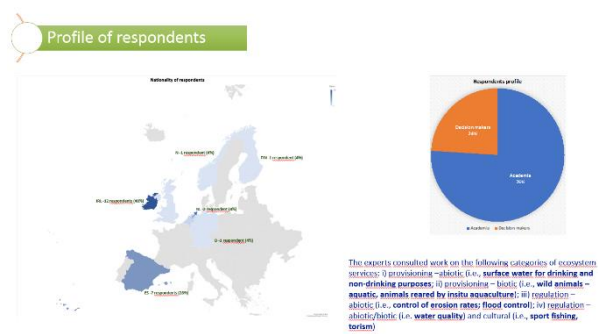
Lisa Sheils opened the plenary session, welcoming attendees to the workshop. She highlighted the advance information circulated to the group for their requested feedback and input as part of the workshop. José María Bodoque del Pozo from University of Castilla-La Mancha, Spain, gave a brief update on the status of deliverables to date. He then summarised the main aims of the workshop as:



- Discussion on results from the data needs survey.
- Discussion on the draft skeleton paper on the above for publication.
- Discussion on draft model catalogue.
- Approval of final version of the policy brief.
- Discussion on the structure of the DSS guidance brief.

3.1.1 Results from the Data Needs Survey and next steps

José presented the main results of the survey on data needs circulated to the ecosystem services community, in July 2020.



The respondents were mainly from academia accounting for 76% and 24% were from decision makers/water managers. The data collated demonstrated a number of issues in regard to ES management and the data types identified to answer the questions raised. The questions raised by the respondents were grouped into categories with the main issue raised being ‘Impact of Stressors’ on ecosystem services. José highlighted

the issue of a bias and/or limitation in the results, as the majority of responses were from Ireland (48%) and Spain (28%), representing a low geographical diversity coupled to a particular stakeholder group. He stressed the need of strengthening the engagement with national decision-makers, where influence is required, that is based on robust scientific evidence, if change is to have actual benefit.

Lisa pointed the importance of economic value of ecosystem services in the answers and of communicating the ecosystem services message to policy makers. **Anne Marie Power (National**

University of Ireland Galway) recommended a balance between academic and stakeholders was needed, and to compare these concerns. **Michael Bruen (University College Dublin)** underlined that there is no mention of multi-criteria analysis in the answers of respondents, which was concerning. Lisa noted the poor participation of the Ecosystem Services Partnership (ESP) and BiodivERsA forum which was disappointing. The marine community was also underrepresented even though **Kathryn Schoenrock-Rossiter (National University of Ireland Galway)** highlighted the survey was circulated in Ireland to citizen science groups through the Irish ocean literacy network. Anne Marie highlighted the need to reinforce the marine/coastal ecosystem data needs and requirements services in the survey, as this was lacking. It was agreed by the group to update the survey (Kate & Ann Marie) and recirculate it to key national stakeholders – it was noted not to re-issue to those who had already responded, in July 2020.

Kate confirmed she has a direct contact in ESP and has forwarded the details to José and Mary and they will follow up directly. Armelle agreed to circulate the survey to JPI FACCE as ES is an important topic in their SRIAs, and JPI Water Advisory Boards (ABs) to involve more stakeholders.

The survey will be updated and will be circulated to a much wider audience, i.e. JPIs FACCE, Oceans, BiodivERsA and relevant Advisory Boards. Feedback be sent to José and Lisa, by November 2nd 2020. José will in turn update the analysis of responses based on any further input received.

3.1.2. Drafting a Paper on Ecosystem Services data needs.

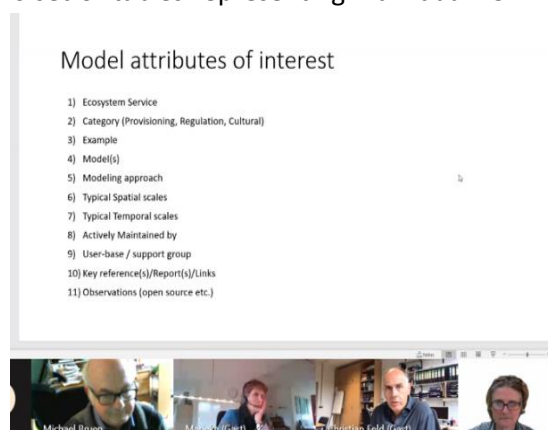
José presented the draft paper, intended for presentation at the ESP conference and will also be submitted to a scientific journal for publication, in 2021. The draft skeleton of the paper drafted by Jose and Mary was circulated in advance to the network for comment and feedback. The main question raised by **Michael Christie (Aberystwyth University, UK)** Mike posed the question. Should the paper focus on NCP (Natural Contribution from People) rather than ES? Lisa highlighted feedback received from **Harri Hautala (Academy of Finland, AKA)** to ensure no duplication of effort and to be mindful of the scientific information being requested in the current call of Water JPI and BiodivERsA on restoration of degraded ecosystems. This same comment relates to the draft model catalogue.

Mary stressed the need for a timeline for the updated survey circulation, as the results will form the basis of the paper (see November 2nd, 2020 deadline above). José also requested more contributors from the network to assist in the paper compilation. A sub-group was formed for the paper - José, Mary, Michael B, Kate and Michael C. **Marieke de Lange (Rijkswaterstaat, the Netherlands)** volunteered to act as a reviewer, once drafted. Michael recommended that Marieke's contribution entitled her to be included as an author, if she wished.

3.1.3. Update on the Catalogue of Ecosystem Services models

Michael Bruen presented on the draft model catalogue, developed by himself and Jose that was circulated to the network in advance of the workshop. It is set of tables representing individual ES and model attributes. The main model attributes of interest were category, scales and usefulness of models (actively maintained) and open source or commercial. It was noted that cultural services should be included by enlarging model definition, in turn making it more qualitative.

Marieke informed the group that there are models in use in the Netherlands looking at recreational value that may be of use (in Dutch). There are examples of other qualitative modelling at local/regional scale. Marieke will send the latter to Michael.

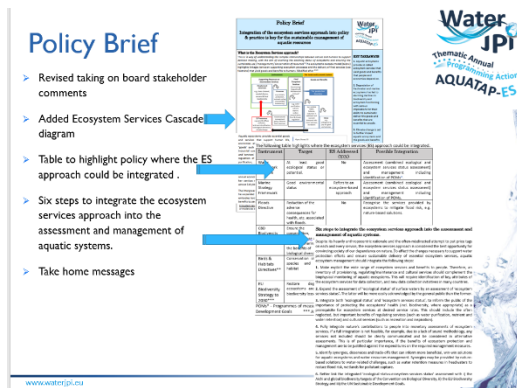


Christian suggested checking the MARS model selection tool for additional models: <http://fis.freshwatertools.eu/index.php/mst.html>. He also pointed out that some reviews on models already exist and should be looked at as a comparison. Finally, he noted the importance of attributes related to application of models by end users and gaps related to estimation of uncertainties and reliability to assist in making a decision. Anne Marie highlighted the importance of taking a community approach to measure cultural services. She also circulated a paper regarding this approach for reference. Anne Marie also circulated a number of papers on Community Voice Methods to measure cultural values in a coastal marine context. **Craig Bullock (University College Dublin, Ireland)** highlighted the need to distinguish between in-river kayaking, swimming, angling and walking for recreation with the last of these probably depending on some previous valuation models plus accessibility.

Michael requested further feedback from the group on the draft model catalogue specifying services and attributes to be added, and sent back to him within 2 weeks to finalize (deadline October 19th).

3.1.4. Final Policy Brief update and options for release.

Mary Kelly-Quinn gave an update on the amended policy brief entitled *“Integration of the ecosystem services approach into policy & practice is key for the sustainable management of aquatic resources”*, making it more policy relevant. The main changes were the inclusion of an ES cascade diagram, a table highlighting where the ES approach could be integrated and steps to be taken for integration.



The key takeaways are considered as a 'hook' for those reading or using the brief. Mary acknowledged those who contributed to the AQUATAP-ES policy brief.

Armelle suggested a change or addition of € not just US\$ as the focus on ES management is in Europe and to add the date of publication should be added in the policy brief.

EPA will arrange for typesetting, design and proofreading. It will then be sent to the Water JPI Governing Board for approval.

3.2 Part II: Guidance on developing decision-support tools

Christian Feld gave a detailed presentation on decision support tools aimed at informing decisions, using a combination of data and knowledge, qualification and quantification of effects and potential causes, and estimation of uncertainties. The key task for this group and this workshop was to decide on the development of a brief guidance for DSS specific to ecosystem services.

Some important questions to consider before developing a guidance document were:

- What are the types of decisions that need support?
- What kind of support is needed? Wiki system or model base decision support tools/ A catalogue /table such as the table on ES models illustrated by Michael are all examples of DSS – which one do we choose.
- Who are the end users?
- How to implement a DSS?
- What are data needs and do the end users have access to these data?

The discussion focussed on what kind of guidance the group should produce and if they had the resources to do so. It could be a guide with steps and specific case studies, but the team would need to find broad case studies and good examples. The group agreed to provide cases studies to Jose. Michael added that the network should also present case studies where DSS didn't work so as to highlight lessons learned.

Anne Marie explained the general strategy evaluation in fishery management. There are simulations to see how well the different strategies will fulfil the objectives. The simulation compares the relative effectiveness for achieving management objectives set in participatory way (broad scope from data collection to analysis and beyond). One of the key challenges is to have realistic objectives defined by the community of users in the model area – paper circulated.

Christian commented that similar kind of models on provisional ES can be found in forestry and agriculture.

Marieke indicated that a decision tree would be useful for policy. She also outlined the importance of Input and Output balance for DSS.

Craig stressed the fact that links with ES are not demonstrated. It is important to develop that link and prove clearly ES benefits, such as the flooding case study he referred to. Christian recommended to take some time to review literature on already existing guidance to not duplicate.

Mary supported the ideas of steps with decision tree and case studies for illustrating. She pointed that the guidance should be a high-level document. Micheal agreed to lead on this output and requested further support from the network members. Christian, will provide support but more members are needed. The work on this output will be start in Q1 2021, with a 1st draft of this guidance document expected for early 2021 and the final version in April 2021.

4. Part III: Next Steps

Lisa closed the workshop with a discussion on next steps and “who leads on what actions” – see “Summary of Actions” below. She thanked the group for its efforts to date and engagement in the workshop. She confirmed that following discussion with Harri in AKA, the proposed final stakeholder workshop due to be held in Helsinki in Q2 2021, will be held remotely rather than a physical meeting due to COVID-19 circumstance.

Mary added the SEFS12 will be hosted by Ireland in July 2021 (virtual meeting) and there will be an opportunity for a special session on ecosystem services. More information will be circulated.

Throughout the workshop a number of papers and useful websites and approaches were discussed and have been circulated following the workshop Also click on link: [Papers circulated by network members.](#)



Summary of Actions:

Survey on data needs:

- **Anne Marie and Kate:** Update data needs survey/ questionnaire to incorporate marine/coastal element (current version attached) - keep within 2 pages - return to Lisa to update please return by **October 13th**.

- **All:** Updated survey to be circulated by all to their national stakeholders - in particular policy makers. Please do not resend to those previously sent, no need for duplication.
- **Armelle /Water JPI Secretariat** to circulate short survey to the Governing Board & Advisory Boards for input and their wider stakeholders. Approved Policy brief will be included if ready.
- **Armelle** - to send short survey once updated on to FACCE JPI as above.
- **Esther** to send short survey once updated to JPI Oceans as above.
- Kate -forwarded ESP contact to Jose and Mary. **Jose/Mary** to send on short survey to ESP for feedback.
- **All:** Please return all feedback to Lisa and Jose please.

Policy Brief:

- **Lisa/EPA** to arrange proofreading / type setting of approved Policy Brief - to circulate back to group once completed to all - **Note please DO NOT circulate wider until it has been approved by the Water JPI Governing Board.**
- **Armelle /Water JPI Secretariat** to send to the Water JPI Governing Board.

Modelling catalogue:

- **All:** please provide feedback to Michael & Jose on the draft catalogue within 2 weeks please (attached again). **By October 16th** please
- **Anne Marie** to send on papers and further provide marine/coastal input to Michael/Jose to catalogue.

Publication:

Thank you to those who have volunteered to assist in drafting the publication/paper with Jose leading.

- Sub-group. Jose, Mary, Michael, Kate, Mike..... (Anna, Joost and Vicenc - you are also welcome: 😊):
- Marieke to act as a reviewer.

Guidance / brief on DSS - work to start in earnest in Q1 2021.

Michael to lead out on developing DSS brief guidance - with support from subgroup - **volunteers requested from network** to support Michael, Christian.

All: Please provide relevant case studies you are aware of. Ones that have worked and ones that have not.

Annex 1. List of Attendees

TAP membership	First name	Surname	Organisation
Seed group	José María	Bodoque del Pozo	University of Castilla-La Mancha, Spain
Seed group	Mary	Kelly-Quinn	University College Dublin/Coordinator, Ireland
Steering committee	Esther	Chacon	AEI, Spain
Seed group	Michael	Bruen	University College Dublin, Ireland
Seed group	Michael	Christie	Aberystwyth University, UK
Seed group	Marieke	de Lange	Rijkswaterstaat, the Netherlands
Water JPI	Armelle	Montrose	French National Research Agency (ANR)/Water JPI WaterWorks2015 Secretariat
Water JPI	Véronique	Briquet-Laugier	French National Research Agency (ANR)/Water JPI Coordinator
Seed group	Christian K.	Feld	University of Duisburg-Essen, Germany
Seed group	Craig	Bullock	University College Dublin, Ireland
Seed group	Jeremy	Piggott	Trinity College Dublin, Ireland
Seed group	Anne Marie	Power	National University of Ireland Galway
Seed group	Kathryn	Schoenrock-Rossiter'	National University of Ireland Galway
Steering committee	Lisa	Sheils	EPA, Ireland
Apologies			
Steering committee	Harri	Hautala	Academy of Finland (AKA)
Steering committee	Miguel Ángel	Gilarranz Redondo	AEI, Spain
Seed group	Joost	Backx	Rijkswaterstaat, the Netherlands
Non-Attendance			
Steering committee	Prisca	Haemers	Ministry of Infrastructure and Water Management (IenW), the Netherlands
Seed group	Vicenç	Acuña	Catalan Institute for Water Research, Spain
Seed group	Anna	Kuparinen	University of Jyväskylä, Finland

Annex 2. Programme

Water JPI Thematic Annual Programming (TAP) Action AQUATAP-ES

Third Workshop Part II

9.30 -13.00 (CEST)

Date: 8th October 2020

Virtual Meeting: MS Teams Virtual Meeting Click here: [Join Microsoft Teams Meeting](#)

Attendees: AQUATAP-ES network researchers, AQUATAP-ES steering committee
(optional: Water JPI members)

9.30 am: Ground Rules Lisa Sheils

All attendees on mute apart from Speakers and Chairs

Q&A via TEAMS Chat facility (visible to all – no private messaging)

Part I Plenary Session: Water JPI AQUATAP-ES Midterm deliverables

9.30 – 9.35: Welcome: Lisa Sheils (AQUATAP-ES Facilitator)

9.35 – 9.40: Aim of the workshop José María Bodoque del Pozo (AQUATAP-ES Coordinator)

9.40 – 10.40: Updates on our Mid-term achievements: José María Bodoque del Pozo

- Results from the Data Needs Survey and next steps.
- Drafting a Paper on Ecosystem Services data needs.
- Update on the Catalogue of Ecosystem Services models: Michael Bruen

10.40 – 11.00: Final Policy Brief & Update on ESP: Mary Kelly-Quinn

- Final Policy Brief update and options for release.
- Update on ESP Hosting session.

11.00-11.15: Coffee Break 15 mins

Part II Workshop Session:

11.15 - 12.45: Guidance on developing decision-support tools: Christian Feld

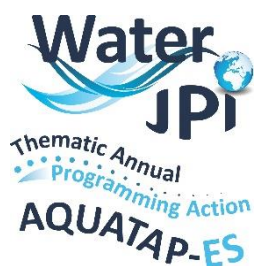
- What decisions need support in water management? Recap.
- Who is the end user of decision support tools?
- What should the Guidance contain and look like?
- Next steps to deliver a brief.

Part III Next Steps

12.45 – 13:00: Lisa Sheils

- Recap to the audience by TAP Action members on session.
- Final Stakeholder Workshop.
- Date for next meeting.

Annex 3. Revised survey template Part II: Data and Modelling Needs



Overall Goal of AQUATAP-ES: Informing Policy & Practice. AQUATAP-ES will seek to foster integration of the ecosystem service concept/framework into decision-making relating to the management of aquatic resources (marine and freshwater). This will necessitate consideration of who the key stakeholders are, **their needs**, and the tools necessary to facilitate communication (e.g. policy briefs) or operationalisation/application (e.g. numerical models and decision support tools and training) of the concept in policy and practice.

Rationale for Questionnaire

- ❖ Compilation of data and modelling needs: lack of key data has been identified as an issue that limits the integration of ecosystem services values into decision-making. Using the collective knowledge of AQUATAP-ES and considering the modelling development and calibration needs for decision support we will **compile a listing of key data that should be prioritized for collection**. Output to be made available to key stakeholders concerned with environmental data collection/monitoring.

Questions

1. What organization (e.g. institution, company, association, etc.) do you work for or citizen science group do you work with?

2. What is your role in the organization?

3. Do you currently collect/analyze Aquatic Ecosystem Services data (marine and /or freshwater)? Please give some detail about your activities.

4. Based on your experience, what questions/information might those in policy and practice (i.e. resource managers, monitoring networks etc.) need answers to in relation to ecosystem services? Consider whether each is relevant to policy or practice, or both. Some examples might include those inserted on the table. **Add others to this table.**

	Information needed	Policy	Practice
1	Where are particular ecosystem services (ES) provided by the aquatic resources in a given catchment or coastal area?		√
2	What is the value of a particular service? e.g. provision of clean water?	√	
3	How do land-use inputs change impact the flow of ES?	√	
4	How are nature-based solutions integrated into natural resource management?	√	
5	To what extent do you think “ecosystem services” are a concept/currency which is being implemented in management of rivers, lakes, estuarine, coastal and marine ecosystems?	√	
6	To what extent is the ecosystem services framework a mature management framework for coastal marine ecosystem management (and what are the gaps for this to be improved)?		√
7			
8			
9			
10			
11			

5. Identify the data types required to address the above questions (may relate to location, quantity, quality, change in the ES) and add the table below.

	1	2	3	4	5	6	7	8	9	10	11
Types of data											
Habitat/Ecosystem maps	√		√								
Land use											
Land-use inputs											
Water quality indicators				√							
Other ES condition indicators (e.g., geomorphological configuration of the floodplain, river bathymetry)				√							

All data obtained will be treated confidentially and in accordance with GDPR and the Water JPI Privacy Policy [Water JPI Privacy Policy](#)

THANK YOU VERY MUCH FOR YOUR PARTICIPATION IN THIS SURVEY – IT IS GREATLY VALUED