7th meeting of the International Network of Drinking-water Regulators

19-20 September 2014
Lisbon, Portugal
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1 Introduction

The seventh meeting of the International Network of Drinking-water Regulators (RegNet) was held on 19 and 20 September 2014 in Lisbon, Portugal. The Water, Sanitation, Hygiene and Health (WSH) unit at the World Health Organization (WHO) acts as Secretariat to RegNet, and coordinates network activities. The meeting was co-hosted by the Portuguese Water and Waste Services Regulation Authority, Entidade Reguladora dos Serviços de Águas e Resíduos (ERSAR). This report summarizes the discussions held at the meeting.

1.1 Background

The International Network of Drinking-water Regulators (RegNet) was established in 2008 as a platform to share experiences and to promote good practice relating to regulation of drinking-water quality. The network aims to increase access to safe-drinking water and ultimately, protect public health, through the improvement of regulatory systems. Specifically, the network serves to:

- Provide a discussion forum to address challenges and share best practice in regulation of drinking-water;
- Share experiences in relation to the development and enforcement of regulatory frameworks for drinking-water quality, and of different approaches to specific issues requiring regulation;
- Guide and share experiences on the role of regulators in supporting implementation of water safety plans within a water safety framework;
- Support the development of internationally-recognized guidance on the regulation of drinking-water to improve public health protection;
- Provide a connection from the periodic updates of the WHO Guidelines for Drinking-water Quality, from a regulatory perspective;
- Provide support and guidance to regulators to develop, update or amend a regulatory framework; and
- Advocate for improvement of drinking-water regulations.

For the purposes of RegNet, a water regulator is defined as an entity tasked with ensuring the safety of drinking-water by undertaking all or some of the following functions at national and sub-national levels: establishing relevant regulations, carrying out independent surveillance of drinking-water quality; and enforcement. Membership is restricted to persons who carry out this task.

1.2 Meeting overview

The 2014 RegNet meeting was attended by fourteen members and two co-opted members, representing the WHO regions of Africa, the Americas, Europe, Eastern Mediterranean and the Western Pacific. In addition, a WHO consultant and two WHO Secretariat members were also in attendance. The meeting preceded the International Water Association (IWA) World Water Congress. At the conclusion of the meeting, a number of RegNet members and the Secretariat were further invited to attend a one and a half-day event of the IWA Regulators’ Forum\(^1\), held on 22 and 23 September 2014.

\(^1\) More information on the IWA Regulators’ Forum and its objectives can be found here: http://www.iwahq.org/242/communities/regulators-forum.html
1.3 **Meeting objectives**

The overall objective of the RegNet meeting was to review network activities in 2013-2014, and discuss mechanisms to operationalize the technical focus areas of the network. The specific objectives were to:

- Review Network activities in 2013/2014 and seek input for 2014/2015;
- Discuss emerging water quality and regulation issues;
- Operationalise RegNet across the three priority technical focus areas which were agreed upon at the 2013 meeting, including:
  - use of regulation to reduce inequalities
  - development of quality assurance criteria for regulatory data for global monitoring purposes; and
- Facilitate networking with economic and environmental regulators of drinking water quality.

The detailed meeting agenda is attached as Appendix 1.
2 Key discussion points

The meeting was opened by Jennifer De France (WHO), who welcomed participants and reiterated WHO’s commitment to protecting public health through the improvement of regulatory systems. Further notes of welcome were given by Luís Simas (ERSAR), who noted the importance of RegNet as a platform for information sharing and learning from the experiences of others.

Claire Pollard (DWI, UK) and Jennifer Mercer (Health Canada) served as rapporteurs on Day 1 and Day 2 of the meeting, respectively. The discussions and recommendations from the meeting are summarized according to the following topics: Network update and emerging regulatory issues; auditing of water safety plans; linking global monitoring and regulatory information systems; regulating drinking water services beyond utility contracts; training frameworks for drinking-water regulation and operationalizing the network.

2.1 Network update and emerging regulatory challenges

Expected outcome: Identify current regulatory challenges, and potential areas of synergy with WHO’s work with regulators

The meeting began with an overview of the network activities in 2013-2014 from the Secretariat, and a roundtable discussion on regulatory challenges currently faced by members.

Network update and reflections from the 2013 meeting

Batsi Majuru (WHO)

Batsi Majuru gave an update on the network activities from 2013 to 2014, and a summary of the main follow-up items from the 2013 meeting2. These relate primarily to stimulating more focused activity within the network, including: the need for responsiveness to identified challenges through facilitated, time-limited technical discussions and / or webinars; and closer engagement between RegNet and other relevant entities within WHO. The specific follow-up items and related activities in 2013-2014 are outlined below.

Responsiveness to identified challenge through facilitated, time-limited technical discussions and webinars: Two webinars were held in the last quarter of 2013; on societal openness to risk assessment, and dealing with local media during a water quality incident.

In follow-up to the 2013 meeting, network members contributed to an online discussion on regulation of non-piped supplies, facilitated by Jennifer Mercer. The outcome of this discussion is outlined in Section 2.4.

Development of guidance material / resources: The Regulatory Scan (RegScan) underwent public review in June and July 2014. The report documents the values specified in national standards for drinking-water parameters and how they compare to those set out in the 4th edition of the WHO Guidelines for Drinking-water Quality3. The document is currently being revised based on the comments received and will be finalized for publication by the end of the first quarter of 2015.

In follow up to a discussion held at the 2013 meeting relating to training needs, a training framework for drinking-water regulators was drafted in 2014. The framework outlines essential aspects to be addressed in the training of regulators, including resources, methodologies and certification programmes. Further information and next steps on the training framework are outlined in Section 2.5.

2 The RegNet 2013 meeting report can be found here: http://www.who.int/water_sanitation_health/publications/regnet_6th_meeting.pdf?ua=1
Other discussions in this session related to the functioning of the network in general, with members giving feedback. It was suggested that in future, the agenda from the last meeting be reviewed, as well as the commitments undertaken. It was also noted that language barriers may pose limitations for some members in reviewing and providing feedback on documents.

**Regulatory challenges**

A roundtable session was held in which participants raised regulatory challenges that they are currently facing and sought advice from their peers. These main points from the session are outlined below.

*Regulating water quality testing in remote / isolated communities*

Many regulators only allow for the use of accredited laboratories. It was recognized that this is not always practical as the length of time it takes to transport a sample to an accredited laboratory can impact the results. Some regulators allow for on-site test kits within regulations but only under certain conditions, e.g. to determine if water quality complies with standards and if there is quality assurance and quality control measures in place. Where the use of on-site test kits is allowed for within regulations, accredited laboratories need to be used if considering moving to prosecution for non-compliance.

*Frameworks for regulating risk management*

The question was raised as to how regulations could be designed to allow for Water Safety Plans (WSPs) or other risk management approaches, in small communities. Specifically, some regulators require risk management plans directly within their regulations, as criteria to be met in order to obtain an approval to operate, whereas other regulators embed the requirement for a risk management plan within approvals to operate.

*Emergency situations*

It was agreed that, in during an emergency, it is not always possible to deliver water that meets all the appropriate standards. Regulators indicated that these situations are best dealt with on a case-by-case basis. Regulators need flexibility to take decisions on how to best manage potential risks to public health.

*Wholesale and retail in water companies*

There are regulators faced with market reforms in which water companies can split wholesale and retail. This presents the challenge as to where regulations should be enforced; i.e. amongst the wholesalers or the retailers. Some regulators hold both responsible for the quality of the drinking water and include a regulatory requirement of communication between the two. Others have two codes of practices, one of each, the application of which is determined by location of the hydraulic break. Other regulators address the issue on a case by case basis, within licensing conditions. It was suggested that this issue would benefit from additional analysis, and food industry regulations were suggested as a starting point.

*Maximum allowable concentrations and treatment methods*

Discussions were initiated on maximum allowable concentrations, e.g. bromate, and treatment methods. These were briefly discussed and will be referred to the World Health Organization’s Drinking-water Quality Guidelines expert committee.

From the Netherlands, a policy paper outlining the key regulatory challenges for drinking water has been developed. These challenges are summarized according to the following themes:

- Protection of drinking-water sources;
- Harmonization of assessment of products in contact with drinking-water;
• Improvement risk assessment and risk management; and
• Content of information provided to consumers.

Challenges/questions raised but not discussed due to a lack of time were:

• Should urban and rural water supplies be regulated the same way? If not, what are the differences?
• How can the effectiveness of regulations be evaluated?
• What are the best practices for the regulation of sea water and reused water?
• Who should be responsible for water safety plans in larger urban centres?
• How best can a large number of small systems be regulated?
• Is maintaining independence a challenge? If so, how is this addressed?
• How can regulations be used to address a situation wherein a system has poor compliance with only two parameters, e.g. hardness and iron?

Overall, participants at the meeting agreed that the main challenge is to get regulations ‘just right’ and strike the balance between too much and too little, and there is a need red tape reduction. The opportunity to discuss these regulatory challenges was welcomed, and the suggestion was made that more time be allocated towards similar discussions at future network meetings.

2.2 Review / auditing of water safety plans / risk management approaches

Expected outcome: Overview of audit approaches and key considerations for sustainability and small systems

An increasing number of countries are implementing water safety plans (WSPs) or other risk management approaches, and WSPs are increasingly required by policy / law. Consequently, the auditing that is required to enforce these regulations is gaining importance. A number of participants gave presentations sharing their experiences in implementing and /or auditing WSPs, and these presentations are summarised below.

WHO / IWA guidance document on auditing of WSPs
Jennifer De France (WHO)

WHO and IWA are developing a guidance document on auditing of WSPs, intended primarily for policy makers and regulators. The document sets out the aspects that should be considered when designing an audit scheme, including: timing and frequency; auditor requirements and certification; audit planning and process; and existing audit experiences. The next steps are to: review the draft, including seeking feedback from RegNet; arrange for the edit, layout and publishing, and possibly arrange for some training workshops.

Review of WSP audit schemes in Alberta, Canada
Donald Reid,

The Alberta Environment and Sustainable Resource Development (ESRD) recently commissioned a review to assess existing options for regulatory WSP compliance auditing processes. The main findings of this review highlight the staffing challenge that the implementation of the audit scheme poses. For ESRD to implement an effective auditing scheme, the staff contingent has to be increased, and / or free staff from other functions within ESRD. The review will be shared within RegNet once it is finalized.

WSP audit experiences from Victoria, Australia
Rodney Dedman,

The development of risk management plans is a requirement of the Safe Drinking Water Act in Victoria. The key players in the safe drinking water framework are: water business (water suppliers and water storage managers), who provide drinking-water; the Department of Health,
who act as regulator; and independent auditors undertake the auditing of water business risk management plans. A paper summarizing the Safe Drinking Water Risk Management Framework in Victoria was shared during the meeting, and can be found on the network virtual forum, EZcollab⁴.

**WSP experiences from the Philippines**  
Joselito Riego de Dios, Manila DoH

The Philippines are currently in the process of developing and implementing WSPs, and have established a national policy that makes WSPs a mandatory requirement for all water service providers. While no formal auditing activities are being conducted currently, there are plans to do so.

**WSP audit experiences from the UK: Considerations for small / private supplies**  
Claire Pollard, DWI

Approximately 1% of the population in the UK use private supplies. Local authorities are responsible for carrying out risk assessment, monitoring, and taking enforcement action to improve supplies, under the technical guidance and support of DWI. Auditing of the WSPs is difficult because local authorities often have other environmental health duties to carry out. A simple tool / checklist has been developed to assist local authorities in reviewing these WSPs.

Following the presentations from a number of the meeting participants, a roundtable discussion was held on where other countries are in implementing or auditing WSPs, and related issues. The main points from this discussion are outlined in Table 2.1 below.

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⁴ Link to document on EZCollab: http://ezcollab.who.int/regnet/library/9ab8e8c3?o=lc
Table 2.1: Status of WSP implementation in various countries and related challenges

<table>
<thead>
<tr>
<th>Country</th>
<th>WSP implementation status</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Ongoing efforts to sensitise utilities on WSPs and consolidate key ministries to work together in the implementation</td>
<td>Variation in regulatory approaches, as there are regulators in each region of the country</td>
</tr>
<tr>
<td>Canada, First Nations</td>
<td>WSP still a plan; there is little to no implementation</td>
<td>Advice sought on best-practice for making WSPs a regulatory requirement</td>
</tr>
<tr>
<td>Morocco</td>
<td>Currently implemented in one city, with plans to expand</td>
<td>Request evidence on the health benefits and cost benefit analysis of WSPs, which would support the case for scaling up</td>
</tr>
<tr>
<td>Mozambique</td>
<td>WSP implementation is ad-hoc; currently seeking buy-in from utility managers, as there is a need to be cognisant of the capacity to enforce</td>
<td>Request a WSP framework that is low cost, simple, yet useful for managers at utility level</td>
</tr>
<tr>
<td>Netherlands</td>
<td>99% of households are connected to one of the 10 drinking water companies. There are approximately 200 small public supplies (e.g. camp grounds). The Drinking Water Legislation in the Netherlands covers source to tap. The development of a WSP as such is not a requirement in the Netherlands. However in the Drinking Water Legislation there are several regulations that align with the WSP approach, like drinking water supply plans, risk based monitoring and QMRA, legionella risk management plans for public buildings and requirements for products in contact with drinking water. Risk management plans and monitoring programmes are audited by the Inspectorate.</td>
<td>Challenges in sharing best practices and improvement in the implementation of the risk management approach from source to tap. Roles and responsibilities not well-defined; mandate of drinking water companies is until water meter, implying that the onus of ensuring water safety beyond the meter / in-house lies with the households</td>
</tr>
<tr>
<td>Portugal</td>
<td>WSPs implementation on a voluntary basis. The regulator advocates the implementation of a risk assessment/risk management approach</td>
<td>Promoting the implementation of the WSPs in small utilities and discussion around the enforcement of this approach</td>
</tr>
<tr>
<td>South Africa</td>
<td>Implementation of WSPs is a requirement for Blue Drop certification.</td>
<td>Experiences are mixed; with WSPs being implemented more successfully in some areas than others</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>Currently starting to implement WSPs</td>
<td>Use desalinated water, and the production and distribution companies are separate. This poses challenges in developing WSPs, therefore there is not much precedence to base decisions on</td>
</tr>
<tr>
<td>Zambia</td>
<td>Currently consulting with utilities on WSP in guidelines.</td>
<td>Auditing of WSPs is not adequately addressed in the current guidelines</td>
</tr>
</tbody>
</table>
Other issues discussed were whether WSPs really encompass safety “from catchment to consumer”, and the importance of independence in the regulation of WSPs. In practice, the mandate for regulation is often up to the meter. However, water may become contaminated through pressure fluctuations or intermittence in the water supply, which poses the question as to whether for the purposes of protecting public health, the responsibility of regulators should extend to the point of consumption.

It was suggested that ‘independence’ in the audit of WSPs should be clarified. Specifically, the question that arose was whether an audit is truly independent if the regulatory body approves the WSP and audits / reviews it as well. Thus, in terms of roles, the issues to be clarified in the setting up of an audit scheme are: (i) who drafts the WSP; (ii) who approves it; and (iii) who reviews it.

Following these discussions on implementation and auditing of WSPs and the various approaches employed, a suggestion was put forward that a scanning review of drinking water regulations be conducted to identify whether they incorporate WSPs or other risk management approaches. While most participants at the meeting were generally supportive of the idea, they expressed the need to better define the scope of such a review, as well as the envisaged outcomes. Luís Simas offered to initiate discussions on these issues on the network’s virtual forum.

**Action points / next steps**
- The Secretariat will share the WHO / IWA WSP auditing guidance document with RegNet once it is complete
- The Secretariat will share the Gunnarsdottir et al. paper on benefits of WSPs. It is also noted that impact assessments of WSP implementation are also being conducted for the WHO / DFAT projects in Asia. The findings of these assessments will be shared with RegNet
- Alberta ESRD will share the review of existing options for implementation of WSP audit scheme once it is finalized
- Luís Simas will initiate discussions on the overview of regulatory models on EZcollab

### 2.3 Linking global monitoring and regulatory information systems

**Expected outcome: Identify critical issues in the use of regulatory data for global monitoring**

As the end of the Millennium Development Goal (MDG) period approaches, a variety of processes are underway to set new global goals and targets, including for water and sanitation. The final form of such goals and targets cannot yet be confirmed, but it seems increasingly likely that water and sanitation will be central to the post-2015 development agenda / Sustainable Development Goals (SDGs), and that new and more complex indicators will be required. At the 2013 RegNet meeting in Peru, participants had discussed the possibility of closer linkage between global monitoring and national and local monitoring mechanisms – including regulatory data – in the fields of drinking-water and sanitation. In follow up to these discussions, WHO has hired a consultant to undertake a scoping study to assess the feasibility of such work. The main points from the presentation and ensuing discussion are outlined below.

**Global monitoring of post 2015 targets and partnership with water services regulators**

Helgard Muller, WHO Consultant

Helgard Muller reiterated the proposed SDGs and related targets for water and sanitation, as background to the discussion on the use of regulatory data for global monitoring. He further

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outlined the main findings from a preliminary survey conducted to assess the feasibility of using regulatory data on water quality for global monitoring purposes. In his presentation, Helgard highlighted that while discussions on post-2015 monitoring have been centred on drinking-water and sanitation (i.e. provision of toilets), more recently there has been increased focus on developing targets for wastewater. This implies that where possible, regulatory data on wastewater would also be useful for global monitoring.

Against this background, the following questions were put forward for discussion: what would be possible incentives for regulators to share data for global monitoring purposes, and what are the quality concerns with regards to such data? The main points from the discussion are summarized below.

**Understanding of global indicators and how they link to utilities**

There is need to create uniformity in the understanding of what the indicators are, and how they are measured. Participants also expressed the need for clarity on the term ‘monitoring’ and the data requirements. Some specific questions were:

- How do indicators of equity used in global monitoring relate to those used at a national level, and further, how can they be linked to data that are available at utility level? For instance, some utilities may not have household data on income, educational status, etc.
- With the likely inclusion of affordability in the proposed SDG targets for water, what is the implication for countries that do not have a designated economic regulator for water – does this imply that they are not taking affordability of water into account?

**Incentive for utilities**

The existing global monitoring indicators tend to be at an aggregated level that is of limited use in more localised settings or at the level of water supply utilities. Because regulatory authorities obtain data from the various utilities that they have oversight of, an important question is how the use of regulatory data for global monitoring would be of benefit to utilities, or what the incentives for them would be.

Further, the perception has been that the existing MDGs apply only to low-income countries. With the likely focus on inequality and expansion into wastewater monitoring in the proposed SDGs, the new indicators may require more active engagement from high-income countries. However, the impetus to do so may only arise if there are clear incentives for utilities or if it is specifically required of UN Member States.

**Capacity building in low-resource settings**

In low-resource settings such as in sub-Saharan Africa, regulatory authorities cover mainly urban areas only. Data on drinking-water quality in non-urban areas may not be available, and the little existing data on sanitation may not be at the resolution required. In these settings, a preliminary consideration may be capacity development in the understanding of the monitoring indicators and the process of collecting and managing data.

**Summary points**

- Clarity is needed on the specific monitoring requirements for use of regulatory data in global monitoring;
- Benefits / incentives for utilities should be made clear; including how data can be used at a local or utility level; and
- Capacity building needs should be considered for low-income countries.

At the conclusion of the discussion, participants expressed a need for a case study documenting how regulatory data can be used in global monitoring. Luís Simas highlighted the need for a
progressive approach; stressing that although there are some unanswered questions about the proposed SDGs, starting off with a few countries participating in the case studies would build up lessons learnt and approaches that could be expanded to other countries over the 15-year SDG period (i.e. 2015-2030).

2.4 Regulating services beyond utility contracts

Expected outcome: Summary of regulatory approaches, define steps to promote and strengthen regulation of services beyond utility contracts

Globally, many people obtain water from sources that fall outside the scope of formal regulatory systems. At the 2013 RegNet meeting in Peru, several network members had shared experiences in regulating services provided beyond utility contracts, and it was recommended that as a follow up point, a discussion on the existing regulatory requirements for such services be held on the network’s virtual forum. Jennifer Mercer presented an analysis of these regulations, and the main points are summarized below.

An analysis of non-piped regulations for drinking-water

Jennifer Mercer

The water supply type covered by the regulations varies, including water delivered by way of in containers, tankers, boats, aircraft, bowser, and vending machines during regular, day to day service, and during emergencies. Challenges identified by regulators include:

- At which point are the regulators’ responsibilities superseded by those of the household, e.g. when a truck delivers drinking water to a household’s cistern?
- Should persons be allowed to sell water that is unwholesome if the water is not being sold for consumption?
- Are different regulations needed for emergency situations?
- How should water made available for re-sell be regulated?

Following the presentation, the common regulatory elements identified were discussed and it was agreed that regulations for non-piped supplies should include, at a minimum, the following core elements in order to protect public health:

**Permit:** A written license or warrant, issued by a person in authority, empowering the grantee to do some act not forbidden by law, but not allowable without such authority.

**Surveillance:** The systematic ongoing collection, collation and analysis of data for public health purposes and the timely dissemination of public health information for assessment and public health response as necessary.

**Notification:** In this context, notification refers to reporting that must be made by law or ministerial decree. For example, a notifiable disease is a disease that must be reported to the authorities by law or ministerial decree.

The following was suggested for inclusion, but not as a minimum requirement:

**Operation:** Procedures and activities involved in the actual delivery of services. In drinking water, operational procedures and activities include the abstraction, treatment, pumping, transmission and distribution of drinking-water.

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It was also suggested that the term ‘non-piped supplies’ does not fully cover the scope of the discussion topics, and that an alternative term should be used, to better indicate that this may relate to the provision of water in various contexts.

Next Steps

It was agreed that an issue sheet be prepared on how to regulate non-piped water supplies. Jennifer Mercer agreed to lead the work and support was offered by Luís Simas, Jamal Shadid, Rodney Dedman, Helgard Muller, and Joshi Pranav.

2.5 Issue sheet on training for regulators

*Expected outcome: Identify training needs of regulators and how they can be addressed*

There is a considerable amount of expertise in drinking-water quality regulation within the network, which could build capacity and strengthen regulatory systems globally. While there is a lot of literature available on training operators of water supply plants / utilities, relatively little has been written on the training of regulators. At the 2013 meeting in Peru, participants had discussed the development of an issue sheet on a training framework for regulators. Such a framework is in line with RegNet’s terms of reference in relation to development and sharing of guidance and best practice resources. Pranav Joshi led the development of the training issue sheet, and a summary of their presentation and the ensuing discussion is given below.

**Training framework for drinking-water regulators**

Pranav Joshi and Chun How Chan, NEA

In the context of regulation of drinking-water as a whole, the purpose of the issue sheet is to provide guidance on: (i) the steps to be taken to develop and implement training frameworks and (ii) key elements of the training frameworks. The scope of the framework applies to piped and non-piped water supplies, but does not include bottled water. The key elements in this framework relate to the acquisition of knowledge (e.g. organization specific, technical, and regulatory) and the acquisition of skills (e.g. personal development, management, technical and specialized skills). The recommended next steps from the presentation were to, in the short term:

- Finalize the issue sheet and disseminate it through the RegNet page and WSH Newsletter;
- Explore the possibility of including a section on training in the WHO Guidelines for Drinking-water Quality\(^\text{11}\), based on the issue sheet; and
- Develop additional issue sheets specific to regulators of drinking-water quality and economic regulators.

In the long term, RegNet should consider:

- Identifying training needs of drinking water regulators; and
- Building capacity to provide training in collaboration with IWA or other organizations.

Participants at the meeting were receptive to the idea of a training framework, and commented on additional aspects that could be included, such as: the recognition of past experience; considerations for the size of the regulation team; succession plans for staff; and crisis management. The training framework itself should be evaluated on a regular basis to determine whether it is meeting the intended purpose.

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Participants also shared experiences on how training is being addressed in their respective regulatory entities. Claire Pollard described the training approach used by the Drinking Water Inspectorate (DWI), highlighting key elements such as the secondment of utility staff to DWI, and the 4-8 month induction courses offered. Kelvin Chitumbo outlined the framework used by the southern Africa regional network for regulators. The network follows a process of peer review, in which countries assess the governance structure, regulatory approach and demonstrated impact in relation to water services. Training needs are identified during this peer review.

There were mixed responses on the training needs of regulators and how they could be facilitated within RegNet. While some were of the view that the network should primarily exist as an information sharing platform, others expressed a definite need for capacity development. Helgard Muller cited the example of how staff from the South African Department of Water Affairs had learnt a lot from visits to DWI, and had found the experience valuable in the development of their own regulations.

**Next Steps**

- Pranav Joshi to finalize the issue on the training framework;
- Claire Pollard to share the DWI training framework and courses offered; and
- Kelvin Chitumbo to share the training framework used within the southern Africa regional network for regulators.

### 2.6 Operationalising RegNet and links to wider activities

*Expected outcomes: (i) overview of potential areas of joint activity between RegNet and Regulators’ Forum; (ii) discuss mechanisms for implementation of Network activities*

The need to build links with other networks in the field of water supply and public health is well recognized within RegNet. Previous network meetings have included joint sessions with the Small Community Water Supply Network and briefings on the activities of the International Network on Household Water Treatment and Safe Storage (HWTS Network)\(^\text{12}\). At the 2014 meeting, Batsirai Majuru provided an update on activities of the HWTS Network, drawing some lessons that could be learnt in terms of operationalising RegNet. This was followed by a brief overview of the 1st International Water Regulators’ Forum, given by Luís Simas. These presentations and the ensuing discussions are outlined below.

**What can RegNet learn from other networks?**

Batsirai Majuru, WHO

The strategic objectives of the HWTS Network are to strengthen the evidence base on HWTS as a key public health measure; achieve tangible results in scaling up of HWTS practice; strengthen the development of national policies and institutional frameworks for HWTS; and evaluate and disseminate best practice in HWTS programmes. There are number of activities that the HWTS Network engages in order to meet these objectives. These activities and the main lessons to be drawn from them can be summarized as follows:

- **Share your knowledge:** members regularly contribute to the network newsletter on specific HWTS-related research or activities. *Thoughts for RegNet:* share news on commissioned research, activities or events that may be of interest to other RegNet members.
- **A little goes a long way:** the network regularly hosts regional and national workshops aimed at supporting the development of actions plans around HWTS. Small start-up funds are awarded to support the development of these policies. *Thoughts for RegNet:* engage in more learning

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exchanges between members; the UK DWI and South Africa DWA learning exchange is a prime example.

- **Make the network work for you:** while much of the activity within the HWTS Network has in the past been driven by the Secretariat, more recently network members are initiating activities themselves. As an example, in 2014 there have been two webinars organised and run by network members, having identified specific issues to be addressed and members within the network who have the relevant technical expertise to address these issues in the webinars. **Thoughts for RegNet:** as previously noted, there is a wealth of expertise in drinking-water quality regulation within RegNet, and such expertise could be shared through more structured, and regular interactions that would ensure a user-engaged network.

- **Activate the interface between knowledge and action:** among the work-plan activities for the HWTS network is mapping use of the HWTS monitoring and evaluation toolkit\(^\text{13}\) and obtain feedback on its relevance in various contexts, applicability, etc. **Thoughts for RegNet:** the network has produced several information resources\(^\text{14}\) over the years. A thought might be the mapping of who is using these resources, and feedback on any issues requiring clarification, updating etc.

- **Align network work-plan with programmatic themes:** With the recent establishment of the International Scheme to Evaluate Household Water Treatment Technologies\(^\text{15}\), the focus of the HWTS Network has shifted from advocacy and general support for the scale up of HWTS implementation, to normative guidance on the effectiveness of HWT products. The HWTS Network is an important platform for promotional activities of the Scheme, as well as engaging with various stakeholders within the field. In addition, because the Scheme is a funded programme within the Water, Sanitation, Hygiene and Health (WSH) unit at WHO, it serves as an important avenue through which complimentary activities of the HWTS Network can be funded. **Thoughts for RegNet:** how best can the network activities complement key WSH initiatives such as Joint Monitoring Programme (JMP), work on WSPs, and the Guidelines on Drinking-water Quality, and how can this alignment of activities work to contribute to the financial sustainability of RegNet?

There were mixed views on some of the thoughts put forward from the presentation, as there was concern that while the HWTS Network is open to various stakeholders including academia, donors, non-government agencies and the private sector, RegNet should remain a closed forum / safe space specifically for regulators. The Secretariat clarified this point, reiterating that there are no intentions to change the composition of the membership, and that network membership would remain exclusive to regulators of drinking-water quality. There was interest in exploring potential funding opportunities to support the network.

**The International Water Regulators’ Forum**

Luís Simas, ERSAR

The hosting of the 2014 meeting back to back with the IWA Congress provided the opportunity for RegNet to interact with other regulators at the 1\(^{\text{st}}\) International Water Regulator’s Forum, which was co-hosted by IWA and the Portuguese Water and Waste Services Regulation Authority, ERSAR. Luís Simas provided an overview of the agenda, highlighting that the Forum would bring together water service regulators (economic, quality of service and drinking-water quality regulators), as well as public health and environmental regulators, to discuss regulatory policies

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\(^\text{14}\) RegNet information resources can be found here: http://www.who.int/water_sanitation_health/dwq/regnet_kit/en/

\(^\text{15}\) Detailed information on the Scheme is available at: http://www.who.int/household_water/scheme/en/
and future trends in the provision of drinking-water and wastewater services. Specifically, the Forum sought to contribute to the dissemination of good practice and allow for a harmonization of regulatory practices by discussing core topics in the provision of water services. Towards the conclusion of the Forum, a consultation session was held on the proposed Lisbon Charter, which seeks to provide a global framework for regulation of drinking-water and wastewater.\textsuperscript{16}

The presentation on the Forum was received with interest, and a number of the RegNet meeting participants attended the one and a half day event.

### 2.7 Moving forward: network priorities in 2014/2015

**Expected outcomes: input on priority areas of focus in 2014 / 2015**

Participants at the meeting expressed appreciation for having a safe space in which to discuss and seek advice on regulatory challenges that they face, as well as benchmark their regulatory approaches to that of others. There are however, some fundamental issues that need to be addressed over time. These relate to financial resources to ensure the sustainability of the network, and balancing the different needs of network participants i.e. having the network as an information sharing platform, but also responding to specific training or capacity development needs, as far as is reasonably possible.

The following items were proposed for the 2014/2015 work plan:

- **Contribute to the post-2015 global monitoring initiatives**, through engagement of various RegNet members in providing input and support the development of approaches to support the use of regulatory data in global monitoring.

- **Develop guidance material in the field of drinking-water regulation**, including finalizing the draft issue sheets on the training framework for drinking-water regulators and regulation of services beyond utility contracts, and the publishing of the Regulatory Scan report.

- **Provide on-demand support on relevant aspects of drinking-water regulation**, through comment on issues raised and where, applicable, sharing of relevant information resources. Several countries are in the process of, or plan to revise or implement national standards and regulation for drinking-water quality, and the expertise within RegNet will be invaluable to this process.

- **Support the development of guidance material of relevance to drinking-water and public health**, by providing input and comment on such materials. Various aspects of the WHO Guidelines for Drinking-water Quality are being updated, and in addition, tools to support the implementation of the Guidelines are being developed. RegNet will be called upon to provide their input.

Table 2.2 summarizes the follow up actions that network members committed to undertake prior to the next meeting:

\textsuperscript{16} More information on the Forum proceedings and the Lisbon Charter can be found here: http://www.ersar.pt/website_en/ViewContent.aspx?Name=WWC_IWA_Lisbon_2014
### Table 2.2: Follow up actions and persons responsible

<table>
<thead>
<tr>
<th>Topic</th>
<th>Person responsible</th>
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</thead>
<tbody>
<tr>
<td>Regulatory Scan</td>
<td>Network Secretariat; Finalize draft, edit and publish</td>
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<tr>
<td>Issue sheet on regulating services beyond utility contracts</td>
<td>Jennifer Mercer: Finalize draft; Network members: Review and provide final comments</td>
</tr>
<tr>
<td></td>
<td>Network Secretariat: Publish on webpage</td>
</tr>
<tr>
<td>Issue sheet on training framework for regulators</td>
<td>Pranav Joshi: Finalize draft; Network members: Review and provide final comments</td>
</tr>
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<td></td>
<td>Network Secretariat: Publish on webpage</td>
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<tr>
<td>Training framework for regulators</td>
<td>Claire Pollard: Share DWI regulator training framework</td>
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<td></td>
<td>Kelvin Chitumbo: Share framework used by southern Africa regulator network in peer review and identifying training needs</td>
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<tr>
<td>WSP auditing</td>
<td>Donald Reid: Share final version of ESRD Alberta review on WSP auditing</td>
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<td></td>
<td>Network Secretariat: Share final version of WHO / IWA guidance document on WSP auditing</td>
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<tr>
<td>Linking global monitoring with regulatory data</td>
<td>WHO: Continue to explore and pilot methods and tools to effectively link globally monitoring with regulatory data, including a possible case study</td>
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<td></td>
<td>Network members: Review documents and provide comments</td>
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<tr>
<td>WHO Guidelines for Drinking-water Quality</td>
<td>Network Secretariat: Share question and answer guide on establishing national standards and regulations based on the Guidelines</td>
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<td></td>
<td>Network members: Review question and answer guide and provide comments</td>
</tr>
<tr>
<td>Regulatory models for drinking water services</td>
<td>Luis Simas: Initiate discussions on the scope and envisaged outcomes</td>
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<td></td>
<td>Network members: Provide comments</td>
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<tr>
<td>Disinfection by-products: Bromate</td>
<td>Donald Reid: Share guidance document with Jamal Shadid</td>
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<tr>
<td>Burden of disease (BoD) from inadequate water, sanitation and hygiene series</td>
<td>Network Secretariat: Share series of journal articles and summary brochure on updated BoD estimates</td>
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<tr>
<td>Quantitative Microbial Risk Assessment (QMRA)</td>
<td>Network Secretariat: Share QMRA document once it is finalized</td>
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<tr>
<td>Health-related water microbiology (HRWM)</td>
<td>Network Secretariat: Explore RegNet links with HRWM group and 2015 meeting</td>
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<tr>
<td>2015 RegNet meeting</td>
<td>Donald Reid and Network Secretariat: look into the feasibility of hosting the next RegNet meeting in Canada</td>
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</table>

Moving forward, the Secretariat will:
• Strive to identify synergies between RegNet activities and WSH priorities; including fostering closer linkages with activities on the WHO Guidelines for Drinking-water Quality, and mobilize resources for the network;
• Seek to develop region-based strategies to enhance participation in the network, and where possible, build capacity;
• Regularly update the network on relevant key activities within WSH; and
• Share relevant key documents with the network for feedback.

2.8 Closing remarks

At the conclusion of the meeting, participants expressed their thanks to WHO and ERSAR for the organising the meeting. The roundtable discussion on regulatory challenges was noted as being particularly valuable, and there were requests that more time be allocated for this discussion item at future meetings. The meeting was closed by Jennifer De France (WHO), who thanked RegNet members in attendance for their active participation in the proceedings, and ERSAR for hosting the meeting.
### Revised Agenda

**Meeting objectives**
- Review Network activities in 2013/2014 and seek input for 2014/2015
- Discuss emerging water quality and regulation issues
- Operationalise RegNet across the three priority technical focus areas which were agreed upon at the 2013 meeting, including:
  - use of regulation to reduce inequalities;
  - development of quality assurance criteria for regulatory data for global monitoring purposes
- Facilitate networking with economic and environmental regulators of drinking water quality.

#### Saturday 20 September 2014

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>08:30 – 09:00</strong></td>
<td>Sign in</td>
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<tr>
<td><strong>09:00 – 09:30</strong></td>
<td><strong>Opening remarks and meeting overview</strong></td>
<td>Luís Simas, ERSAR; Jennifer De France, WHO; Batsi Majuru, WHO</td>
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<td></td>
<td>Welcome and opening remarks</td>
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<td></td>
<td>Opening remarks, update on WSH activities and introduction of participants</td>
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<tr>
<td></td>
<td>Meeting objectives and overview</td>
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<tr>
<td><strong>09:30 – 10:30</strong></td>
<td><strong>Session 1: Update and emerging regulatory issues</strong></td>
<td>Batsi Majuru, WHO</td>
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<td></td>
<td>Overview of Network activities 2013 / 2014</td>
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<td></td>
<td>Roundtable discussion: emerging regulatory challenges</td>
<td>10 min presentation followed by roundtable discussion</td>
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<td></td>
<td><strong>Expected outcome: Identify current regulatory challenges, and potential areas of synergy with WHO’s work with regulators</strong></td>
<td>Moderator: Pranav Joshi; NEA</td>
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<tr>
<td><strong>10: 30 – 11:00</strong></td>
<td>Coffee / tea break</td>
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<tr>
<td><strong>11:00 – 12:30</strong></td>
<td><strong>Session 2: Reviewing and auditing of Water Safety Plans: An overview</strong></td>
<td>Jennifer De France, WHO; Donald Reid, Health Canada; Rodney Dedman, Victoria DoH</td>
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<td></td>
<td><strong>Expected outcome: Overview of audit approaches and key considerations for sustainability and small systems</strong></td>
<td>Joselito Riego de Dios,</td>
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<td>Introduction and overview of auditing of WSPs; WHO / IWA WSP auditing guidance document</td>
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<td>Developing a WSP audit programme in Alberta, Canada</td>
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<td>WSP audit experiences from Victoria</td>
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<td>WSP audit experiences from the Philippines</td>
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</table>
### 12:30 – 13:45
**Lunch**

### 13:45 – 15:00
**Session 2 continued**

Group discussion on selected aspects of WSP auditing

**Moderator:** Luís Simas, ERSAR

### 15:00 – 15:30
**Coffee / tea break**

### 15:30 – 16:50
**Session 3: Linking global monitoring and regulatory information systems**

*Expected outcome: Identify critical issues in the use of regulatory data for global monitoring*

- Overview of post-2015 process and need for regulatory data in global monitoring
- Discussion: Critical considerations for the use of regulatory data for global monitoring
- Pulling it all together: Critical issues and action items

*Overview presentation of planned next steps, followed by moderated discussion of key issues*

**Moderator:** Manuel Alvarinho, CRA

### 16:50-17:00
**Wrap up**

**Rapporteur:** Claire Pollard, DWI

### 18:00-20:00
**Dinner event**

**Venue to be advised**
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Presenter</th>
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<tbody>
<tr>
<td>09:00 – 09:15</td>
<td>Summary of Day 1 and agenda for Day 2</td>
<td>Rapporteur: Jennifer Mercer, Independent expert</td>
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<tr>
<td>09:15 – 10:30</td>
<td><strong>Session 4: Regulating services beyond utility contracts</strong></td>
<td>Expected outcome: Summary of regulatory approaches, define steps to promote and strengthen regulation of services beyond utility contracts</td>
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<td></td>
<td>• Overview of regulation of non-piped supplies</td>
<td>Jennifer Mercer, Independent expert</td>
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<td>15 min presentation followed by 1 hour discussion</td>
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<tr>
<td>10:30 – 11:00</td>
<td>Coffee / tea break</td>
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<tr>
<td>11:00 – 12:30</td>
<td><strong>Session 5: Training frameworks for drinking-water regulators</strong></td>
<td>Pranav Joshi / Chun How Chan</td>
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<td>Expected outcome: Identify training needs of regulators and how they can be addressed</td>
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<td></td>
<td>• Issue sheet on training framework</td>
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<td>• Roundtable discussion by countries on the type of current training framework implemented (including resources, methodologies, certification programmes, and how training needs of staff are identified)</td>
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<td>15 min presentation followed by 1 hour discussion</td>
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<td>12:30 – 13:45</td>
<td>Lunch break</td>
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<tr>
<td>13:45 – 14:35</td>
<td><strong>Session 6: Operationalizing RegNet and links to wider activities</strong></td>
<td>Luís Simas, ERSAR Batsi Majuru, WHO</td>
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<td>Expected outcomes: (i) overview of potential areas of joint activity between RegNet and Regulators’ Forum; (ii) discuss mechanisms for implementation of Network activities</td>
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<td></td>
<td>• The IWA Regulators’ Forum</td>
<td>Moderator: Kelvin Chitumbo, NWASCO</td>
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<td>• Operationalising RegNet: What can we draw from other Networks / unit activities?</td>
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<td>10 min presentations followed by 40 min discussion</td>
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<td>14:35 – 14:50</td>
<td>Coffee / tea break</td>
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<tr>
<td>14:50 – 15:50</td>
<td><strong>Session 7: Moving forward: Network priorities in 2014 / 2015</strong></td>
<td>Moderator: Jennifer De France, WHO</td>
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<td>Expected outcomes: input on priority areas of focus in 2014 / 2015</td>
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<td>Discussion of action items from 2013 / 2014 and plans for 2014 / 2015</td>
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<tr>
<td>15:50 – 16:00</td>
<td>Concluding remarks</td>
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Facilitating networking with economic and environmental regulators of drinking water quality

The IWA Regulators’ Forum

At the conclusion of the RegNet meeting, members are invited to spend a further day and a half at the Regulators’ Forum hosted by the International Water Association (IWA), to be held on 22 and 23 September 2014. Please refer to the Regulators’ Forum agenda previously circulated for details.