Ramsar Network Japan 10th anniversary symposium [part II]

Ramsar Convention and the Role of NGOs

To Save the Natural Flow of Water

Summary/Handouts

Sunday, August 25th 2019

9th Floor International Hall, YMCA Asia Youth Centre

Organised by	Ramsar Network Japan (RNJ)
Co-Organised by	Korea Wetland NGO Network (KWNN) World Wetland Network (WWN)
Supported by	Ministry of the Environment Japan Wetlands International Japan The Nature Conservation Society of Japan WWF Japan Wild Bird Society of Japan
Sponsored by	GLOBAL GREENGRANTS FUND (GGF) Patagonia International Inc. Japan Branch

Ramsar Network Japan 10th anniversary symposium [part II] is funded by
GLOBAL GREENGRANTS FUND (GGF), Patagonia International Inc. Japan Branch

Programme

10:00 **Opening Remarks**
Mr. Hisashi Takahashi (Joint Representative of RNJ)

10:10 **The aim of this Symposium**
Mr. Takayuki Jinnai (Joint Representative of RNJ)
Mr. Minoru Kashiwagi (Board Member of RNJ)

10:30 [**Keynote Speech**] Implementation of Ramsar Resolutions and the role of NGOs
The importance and state of the world's wetlands:
what is it, why, and what can NGOs do about it?
Prof. Nick Davidson (former Deputy Secretary General of the Ramsar Convention)

12:00 [**Report 1**] **Wetland Conservation Efforts in Japan**
Ms. Marisa Aramaki
(Deputy Director, Wildlife Division, Nature Conservation Bureau, Ministry of the Environment Japan)

12:30 **Lunch break**

13:30 [**Report 2**] Restoring the natural flow of water: a case study in Japan
Restoration of the Kumagawa River and its estuarine tidal flats following the removal of the Arase Dam
Ms. Shoko Tsuru (Association to Revive the Rich Kumagawa River)

14:00 [**Report 3**] Restoring the natural flow of water: a case study in Korea
The Nature Restoration Process of the ROK's Four Major Rivers
Mr. Kim Kyung-cheol
(Manager of Technical Committee on Water Environment, and Member of Planning Committee to Investigate and Evaluate the Four Rivers Project (PCF), both under Commission on Investigation and Evaluation of the Four Rivers Project, Ministry of Environment, the Republic of Korea)

14:30 [**Report 4**] Activities of World Wetland Network (Video Message)
World Wetland Network
How WWN Works for the Convention: Ramsar COP 13
Ms. Louise Duff (Chair of WWN)

15:00 [**Report 5**] **The role that Japanese NGOs have played in the wetland conservation**
Mr. Yoshihiro Natori (Chair of WIJ)

15:30 **Tea Break**

15:50 [**Panel Discussion**] **NGO Action Plan to Save the Natural flow of Water**
Moderator: Mr. Takayuki Jinnai, Mitsuhiro Nagai (Joint Representatives of RNJ)
Panelist: Dr. Nick Davidson, Ms. Shoko Tsuru, Mr. Kim Kyung-cheol, Mr. Yoshihiro Natori

17:25 **Concluding Remarks**
Mr. Ryoichi Hori (Board Member of RNJ)

17:30 **Closing**

Brief biography of the speakers

Prof. Nick Davidson

Nick Davidson is a consultant on wetland conservation and wise use. He was the Deputy Secretary General of the Ramsar Convention on Wetlands from 2000 to 2014, with lead responsibility for the Convention's global development and delivery of scientific, technical and policy guidance and advice and communications.

Nick has over 40 years' experience of research on the ecology, assessment and conservation of coastal and inland wetlands and flyway conservation of migratory waterbirds. He has previously worked for the UK's national government conservation agencies and as International Science Coordinator for Wetlands International (a Ramsar International Organisation Partner). Nick's current work includes supporting enhanced Ramsar Convention implementation in Myanmar, strategic planning for Ramsar Regional Initiatives, and research on improving the global knowledge-base of the value, area, distribution, status and trends of wetlands.

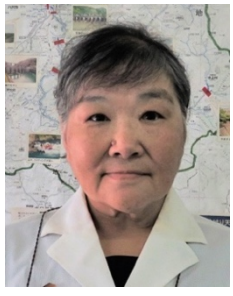
Since 2009 Nick has been an Adjunct Professor at the Institute of Land, Water and Society, Charles Sturt University, Australia. He received the Society of Wetland Scientist's (SWS) International Fellow Award 2010 and Lifetime Achievement Award 2019; and currently Chairs the East Asia-Australasia Flyway Partnership (EAAFP) Technical Sub-Committee.

Ms. Marisa Aramaki

Deputy Director, Wildlife Division, Nature Conservation Bureau, Ministry of the Environment

Marisa holds a Ph.D. in Agriculture. She started her career as a ranger in the Environment Agency (now Ministry of the Environment) in 2000 and undertook various assignments including national park management and negotiations at conferences for international conventions. She was a member of the Japanese government delegation at COP11 of the Ramsar Convention in Romania, 2012. As Manager of the Wildlife Section at Kanto Regional Environment Office, she was involved in the management of National Wildlife Reserves such as Yatsu Tidal Flats and Sakata Lagoon. She has held her current post since December 2018.

Ms. Shoko Tsuru



She has been involved in nature conservation activities, especially involved in the Kawabe River Dam issue and the Arase Dam removal issue in the Kuma River, in Kumamoto Prefecture for many years, and conducted field surveys in the basin. In 2014, she won the Special Prize for the Nature Conservation Award of Japan, "Numata Makoto Award". She is the chairman of the Kumamoto Liaison Council, a nature observation instructor. Lives in Yatsushiro city, Kumamoto Prefecture.

Mr. Kim Kyung-cheol

Graduated from Busan National University (Chemistry Major, Dept. of Biology)
Former Positions:
Conservation Director, Wetlands and Birds Korea
Secretary-General, Korea Wetland NGO Network
Current Assignments:
Manager of Technical Committee on Water Environment, and Member of Planning Committee to Investigate and Evaluate the Four Rivers Project (PCF), both under Commission on Investigation and Evaluation of the Four Rivers Project, Ministry of Environment, the Republic of Korea

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Ms. Louise Duff

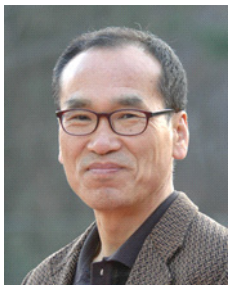
Louise is Chair of the World Wetland Network, representing NGOs, and civil society in global conservation policy. Louise attended Ramsar COP 11, 12 and 13 providing a platform for youth and NGO participation. She is Catchment Coordinator for the Great Lakes region of NSW Australia, and a Master's candidate studying Integrated Water management with the International Water Centre.

Her favourite Ramsar-listed wetland is the Myall Lakes, which she loves exploring by canoe.

Mr. Yoshihiro Natori

He started his career as a ranger in the Environment Agency (now Ministry of the Environment) in 1975 and undertook national park management at Aso Kuju and.Akan Mashu.
From 1990 to 1993, when he was working at Wildlife Division, Nature Conservation Bureau of Environment Agency, he served as Manager of the Preparation Team of Kushiro Conference of Parties to the Ramsar Convention and involved himself in the designation of 5 sites in the Ramsar List.
In 2003, he became Director of Wildlife Division, Natural Environment Bureau, Ministry of the Environment Japan and involved himself in the designation of 20 Ramsar Sites in Japan.
Since January 2013, he is Chair of Wetland International Japan.
His lifework as well as a hobby is to travel around Ramsar sites in Japan.

Mr. Park June-log



Chief of Steering committee / Korea Wetlands NGO Network

Chairman, Executive Committee for Salvation of Nakdong Estuary
(May 2018 − present)
Representative of CBD Citizens Network (2014 − present)
Member of the National Wetlands Commission (2017 − present)

■ **The aim of this Symposium**

To stop the destruction of wetlands by development projects. Let us protect the natural flow of water.

Takayuki Jinnai
Joint Representative of Ramsar Network Japan

1. Beginning of the initiative to protect the natural flow of water

Destruction of wetlands by development projects seems unstoppable. Wetlands continue to decline worldwide. Above all, river basin and coastal areas with a high concentration of human activity are threatened by development projects. The *Global Wetland Outlook*, a report released during COP13 of the Ramsar Convention in Dubai, United Arab Emirates last year, states that "*since 1970, approximately 35% of wetlands have been lost at a rate three times greater than that of forests, and 81% of inland wetland species populations and 36% of coastal and marine species have declined.*" It further states that "*wetland-dependent species are therefore in crisis, with a quarter of them at risk of extinction*". The Ramsar Fact Sheet 3.1 shows a noticeable wetland decline in Asia and Europe. The status report of wetlands in Japan published by the Ministry of the Environment in April 2016 reports that many wetlands (36%) are deteriorating, and that more than half of the factors are "impacts of development and other human activities". The patterns of development which lead to the destruction of wetlands include shoreline modifications by reclamation, drainage by a double dyke, and construction of dams, weirs, embankments, massive seawalls and large tunnels. What these developments have in common is the construction of artificial structures that impede the natural flow of water.

By focusing on these common factors, the Ramsar Network Japan and the Korea Wetland NGO Network (KWNN), have been working together to "protect the natural flow of water" since they held the Japan-Korea NGO Wetland Forum in Gifu City in October 2016. They first worked on examining the existing resolutions and guidelines of the Ramsar COPs with the goal of having "protection of the natural flow of water" incorporated into future resolutions. They subsequently realized that existing resolutions and guidelines have already and repeatedly noted the importance of protecting river basins and coastal areas and of maintaining the natural characteristics of water regimes, and that even though there were already many resolutions, they were not fully utilized.

2. Resolutions of the Ramsar COPs not currently being utilised

Paragraph 146 of Annex to Resolution X.19 points out that "*it is more cost effective to maintain natural wetlands*", and *Paragraph 178 of Resolution VIII.1* states that "*flows should normally follow the natural regime as closely as possible to maintain the natural ecology*". However, their guidance has not been used. For instance, in the Isahaya Bay Reclamation Project, the water quality in the regulating reservoir has been deteriorating since 1997, when the bay was closed off from the rest of the Ariake Sea by a flood control dyke. Similar impacts have been experienced by other wetlands which were drained by a double dyke. As the construction of the flood control dyke started, catches of both finfish and shellfish began to fall, and serious fishery damage continues in the entire Ariake Sea. The government is spending a large amount of money to take countermeasures without making any improvements. Indeed, they are paying a high price for destroying the natural wetlands. There are calls for an opening of the floodgates to facilitate water exchange with the open sea.

Annex to Resolution VIII.4: Principles and guidelines for incorporating wetland issues into Integrated Coastal Zone Management (ICZM) points out the importance of recognizing the continuity of

land, rivers and seas, and the delicate nature of coastal wetlands and sandy beaches. These principles and guidelines have not been implemented either. Take the reclamation projects of the Awase Tidal Flats, Okinawa and Hakata Bay, Fukuoka as examples. Even though planners claimed to have taken the natural environment into consideration by adopting the form of an offshore artificial island instead of filling up the coast, it set a vicious cycle in motion: the artificial island obstructs the tidal current and seawater exchange; eutrophication intensifies; blooms of harmful algae covers the entire tidal flats; and rotten algae turns into sludge, causing serious damage to the remaining wetlands. Construction of a new U.S. military base in Henoko, Okinawa and massive seawalls along the coastal region of Tohoku, which was affected by the Great East Japan Earthquake are also evidence that resolutions of the Ramsar COPs have not been used.

Guidelines Box N, Annex to Resolution X.19 urges the contracting parties to:

1. *carry out the assessment process from the very initial stages of project preparation in a fair and objective manner taking in the viewpoints of third parties*
2. *hold consultations with all stakeholders including local residents who may be affected by the project; and*
3. *consider alternative proposals including the "no-development" option.*

However, in Japan, the assessment team typically reflects the intentions of the project implementation body, and consultation with residents is a mere formality, because by that time the decision to carry forward the project has already been made final. Project implementation bodies, often the governments, tend to overestimate the benefits of the projects, such as disaster control and irrigation. In the case of the Ishiki Dam Project in Nagasaki Prefecture, using an unrealistic water demand projection as the basis for the dam construction, the government is trying to force its way through by expropriating land that the residents inherited from their ancestors. In the first place, as seen during the heavy rains in West Japan last year, dams pose risks to people: 1. dams are ineffective in the face of rainfalls which exceed the assumed maximum level (the same as having no dams if they exceed the control capacity); 2. dams can throw downstream communities into crisis by rapidly increasing their discharge volume.

The Ramsar Convention also provides a resolution for the restoration of wetlands which were degraded by developments. *Resolution VIII.16: Principles and guidelines for wetland restoration* urges the contracting parties to use these principles and guidelines when they complete their national wetland inventories including wetlands with potential for restoration. However, opportunities for wetland restoration have been missed because governments evade their obligation of including those with potential for restoration in their national wetland inventories.

3. The aim of this symposium

The above issues have also been raised in the side events and position papers of COP13. The main reason that the existing resolutions and guidelines are not fully utilized may be that although the Ramsar COPs resolutions contain the contracting parties' commitments, there is no penalty for not meeting those commitments. Therefore, the contracting parties seem to be less willing to comply with those resolutions. As judgment on wetland conservation and restoration is largely dependent on the policy of the contracting parties' administrations, the resolutions need to be established as enforceable instruments. Also, many grassroots NGOs seem to have realized the limitations of international conventions such as Ramsar. Contracting parties need better to understand the role of NGOs and utilize their input for on-the-ground implementation. We look forward to learning about these issues from Prof. Nick Davidson, former Deputy Secretary General of the Ramsar Convention.

At the same time, initiatives to restore the natural flow of water are underway around the world. The website of the Ministry of Land, Infrastructure, Transport and Tourism states that 467 dams and weirs in the United States have already been removed, and 90% of them are weirs whose height is less than 15 m.

In addition, there are reports on what is called “the reversal of drainage”, efforts to open the seawalls to restore the natural environment that are being carried out in Europe and South Korea, e.g., Cheongsu Bay. We look forward to hearing reports on the removal of the Arase Dam in Japan and the opening of the weirs which were constructed by the Four Major Rivers Project in the Republic of Korea.

In the following discussion based on each speaker’s report, we will discuss how local citizens can use the Ramsar Convention as a tool and what NGOs should do to help them make better use of the resolutions and guidelines. It is important to create an environment in which the guidance of existing resolutions are implemented before adopting new resolutions. The Ramsar Network Japan intends to draw up and work on an NGO action plan to “protect the natural flow of water” in order to stop the destruction of wetlands by development projects and to spread initiatives for nature restoration. That action plan should be useful for grassroots NGOs. We hope this symposium will be helpful for all.

■ **Keynote Speech**

The importance and state of the world's wetlands: what is it, why, and what can NGOs do about it?

Prof. Nick Davidson
Institute for Land, Water & Society, Charles Sturt University, Australia
& Nick Davidson Environmental, Wigmore, UK

Wetlands, both coastal and inland are increasingly recognised as being crucial for delivering a wide range of different benefits to people ("ecosystem services"). These services have huge economic (monetary) value (as well as many other services which cannot be monetarised). Our recent re-estimate of the economic value of natural wetlands is a minimum of Int$ 47.1 trillion per year. This amounts to almost one-half (43%) of the economic value delivered by all the world's natural ecosystems, and is much higher than the Int$ 22.4 trillion per year from forests. 57% of wetland value comes from inland wetlands, and 43% from coastal and near-shore marine wetlands. The unit area value of coastal wetlands is particularly high: despite forming less than 1% of the earth's surface they deliver 19% of global economic value.

So, given this huge value of wetlands to people's livelihoods and well-being, have we been looking after these hugely valuable natural assets? No.

For many centuries we have been draining and converting wetlands to other land-uses, particularly for agricultural production, and urban and industrial developments. We may have destroyed as much as 87% of the area of our wetlands since 1700 AD, 64-71% since 1900 AD, and 35% since 1970 (but note that these figures may be over-estimates of global wetland losses since they are derived from only a sample of wetlands for which data exists). But comparatively, we are clear that the rate of loss of wetland area in the 20th century was almost three times as fast as in earlier centuries and, alarmingly, that the rate of area loss since 2000 AD almost doubled compared with the 1970-2000 AD period. Wetland area losses have been most extensive in Africa and Latin America & the Caribbean, and least extensive in North America and Oceania, with Europe and Asia intermediate. This information indicates that the world's governments will not meet their commitments to reduce or reverse the loss of wetlands under the 2020 Aichi Targets and the 2030 Sustainable Development Goals (SDGs).

Not surprisingly given these continuing losses of natural wetlands, species which depend on wetlands are also in major decline. As reported in Ramsar's 2018 *Global Wetland* Outlook the Living Planet Index (LPI) reports an 81% decline in the populations of inland wetland species since 1970 – a far greater decline than for species dependent on other ecosystems. The Red List Index (RLI of globally-threated species reports an increasing risk of extinction in all of four taxonomic groups: mammals, birds, amphibians and corals. Percentages of wetland-dependent globally threatened species are higher in tropical realms than in other realms. Over 25% of wetland-dependent species are globally threatened in over 60% of the taxa assessed so far.

What about the state of health of the remaining wetlands (those which we have not yet got around to destroying)? This is a big information gap. But some recent analyses from Ramsar National Reports (for Ramsar Sites and for wetlands generally) and the 2017 SWS/WWN/WWT 'citizen-science' survey of "The state of the world's wetlands" provide a broadly similar story. More wetlands remain in a "good" ecological character state than are in a "bad" state. But there is much more widespread, and increasing,

deterioration than improvement in ecological character state of wetlands. There is also a widening gap between wetlands in good and bad current state. 90% of wetlands in good state are also reported as having not changing or improving ecological character. But conversely, 70% of wetlands in currently poor current state are further deteriorating. Ramsar Sites are generally reported as being in better ecological character than wetlands generally, but many Ramsar Sites are also deteriorating. As for wetland area losses, the poorest state and most widespread deterioration in state of wetlands is in Africa and Latin America & the Caribbean, with least deterioration in Oceania.

So, why are we still facing the situation of wetlands continuing to be destroyed and allowed to deteriorate in state in many parts of the world? We have been examining three hypotheses about this, which are not mutually exclusive – and there is some evidence that all three are contributing to this continuing situation.

1. *Governments are not doing enough to implement the commitments they have made to deliver Multilateral Environmental Agreements (MEA) such as those commitments made under the Ramsar Strategic Plan*. Analysis of Ramsar COP12 (2015) National Reports shows that, as reported by Contracting Parties, the extent of national implementation of National Report actions varies greatly between Parties, from 7% to almost 90%, but on average governments have been implementing only half (50.5%) of their expected actions.

Is Ramsar's suite of water-related guidances being used by Contracting Parties? In the 2000s, Ramsar developed the most comprehensive globally-applicable guidance adopted by the world's governments on managing water and ecosystems. This was designed to help inform and support Ramsar national Authorities to understand more about water resource management and for them to take the adopted guidance to their national water resource management authorities to help them understand better the role of wetlands in water management.

Has this happened? Not much, according to Ramsar National Reports. None of the Ramsar water and wetlands Wise Use Handbooks are amongst the 10 most-downloaded Handbooks from the Ramsar website. Some limited information is available from COP13 National Reports (from Secretary General's report on implementation to COP13):

- 59% of Parties report that wetland issues/benefits have been incorporated into national water resource management strategies and planning processes;

- 46% report that wetland issues/benefits have been incorporated into national plans for pollution control;

- Only 17% report that they have assessed the quantity and quality of water available to, and required by, wetlands to support the implementation of the Guidelines for the allocation and management of water for maintaining the ecological functions of wetlands; and

- 63% report that their country's water governance and management systems treat wetlands as natural water infrastructure integral to water resource management at the scale of river basins (but this is less than at COP12 – 71%).

Further analysis of Parties' COP13 National Reports on water-related implementation has not been possible because the Secretariat currently does not provide National Report information they hold to third-parties.

Why there has been limited use of Ramsar's water-related guidance is not clear, but there are likely to be many reasons. For example, in European countries, governments have a focus on implementing the WU Water Framework Directive (WFD) and so do not see the need to promote or apply the Ramsar guidance. Changes in government personnel may mean that people have forgotten about the existence of the Ramsar guidance – and so may need reminding about it. And under-resourced and weak agencies responsible for Ramsar implementation may be more comfortable to sit in their own 'safe silos' and are find it difficult to, or are unwilling to, try to engage with more powerful parts of government – who themselves may be unwilling to engage.

2. *The state of the world's wetlands would be even worse if it was not for the many implementation actions being undertaken by governments and others.* We have found links between the national extent of Ramsar implementation and the state of wetlands reported: the greater the extent of implementation, the more likely wetlands are to be reported as in not changing or improving state. In other words, the more governments do, the better the state of their wetlands. In particular, if there is an established national-level 'authorising environment' (e.g. National Wetland Policy, national wetland legislation, requirement for Environmental Impact Assessments etc.) and on-the-ground implementation, wetlands are reported to be in a good state. Yet less than half (only 43%) of Parties have a National Wetland Policy in place.

3. *Regardless of how much governments do to implement their commitments under MEAs this will not result in better state of wetlands because there are major over-riding factors (Ultimate Drivers) that prevent this.* Amano et al. (2017) has found that the strongest driver of positive trends of waterbird populations is good national governance, and that the establishment of a protected area network was only effective in countries with good governance. Further analyses we are now doing suggests that a major ultimate driver of wetland state is the rate of national GDP growth: i.e. it is countries with rapid economic growth in which wetlands are most likely to be deteriorating.

What can NGOs do to make the wetland situation better in the future? Keep going – do not give in! Ultimately it is a matter of societal choice whether to better safeguard wetlands (or other natural ecosystems) or not. And NGOs, as voices of the people, can and must continue to apply pressure, based on sound science, on governments to respond better to societal needs. But the wetland community has not strongly enough 'sold' the importance of wetlands to people to decision-makers: use our increasingly strong evidence base of the importance of wetlands as a source of more powerful messages.

But changing government attitudes and actions is highly unlikely to be achieved by the wetland conservation community acting alone: we need to work with other sectors such as organisations focussed on people's livelihoods and poverty reduction to tell stronger arguments for the mutual benefit of maintaining natural ecosystems for people's future well-being. Focus on the "win-wins": maintaining naturally functioning wetlands helps people and can reduce costs (e.g. natural wetland infrastructure delivers water and flood management, and pollution control, more cheaply than built infrastructure) and the environment is the co-beneficary. Money does matter…

- The PowerPoint for this lecture can be viewed at the following URL.
  http://www.ramnet-j.org/file/2019_nick_davidson_ppt.pdf

■ **Report 1**

Wetland Conservation Efforts in Japan

Marisa Aramaki
Deputy Director, Wildlife Division,
Nature Conservation Bureau, Ministry of the Environment

Japan became a Contracting Party to the Ramsar Convention on October 17, 1980. Starting with the designation of Kushiro-shitsugen marshland as a Ramsar site in the same year, various types of wetlands have been designated. As of August 2019, there are 52 Ramsar sites in Japan, covering a total area of 154,696 ha. When selecting candidate wetlands, Japan sees the following as prerequisites: (1) meet the international criteria set by the Ramsar Convention; (2) ensure long term conservation of the site through national legislation of laws, and (3) gain consent and support of the local communities.

The Ministry of the Environment has proceeded with the designation of wetlands that meet those requirements, and promoted conservation and wise use of existing Ramsar Sites in accordance with the philosophy of the Convention by working with local governments, the National Liaison Conference for the Promotion of the Ramsar Convention, the Meeting of Japanese Municipalities Involved with Wetlands Designated under the Ramsar Convention, experts, NGOs, local residents, and other interested parties. In addition, based on the Law for the Promotion of Nature Restoration enacted in December 2002, the Ministry is also working on the restoration of wetlands, such as implementing nature restoration projects in Kushiro-shitsugen and Sarobetsu-genya peatland.

■ **Report 2**

Restoration of the Kumagawa River and its estuarine tidal flats following the removal of the Arase Dam

Shoko Tsuru
Association to Revive the Rich Kumagawa River

The removal of the Arase Dam on the Kumagawa River, which flows through the southern part of Kumamoto Prefecture, became the first large dam removal in Japan. The removal work was carried out over six years from 2012 to 2018, and it is currently one year and four months after the completion of the work. I will report on how the upstream, which was once a dam reservoir, downstream, and the estuarine tidal flats have changed from the start of the removal work until the present and will discuss current issues regarding the restoration of the Kumagawa River.

Construction of the Arase Dam and the campaigns for its removal

The Arase Dam is a hydroelectric power dam (24 metres in height, 210.8 metres in width) constructed in 1929 in the former Sakamoto Village (now Sakamoto-cho, Yatsushiro City), approximately 20 km from the estuary of the Kumagawa River (flow channel length of approximately 115 km). In subsequent years, Setoishi Dam (exclusively for hydroelectric power generation, 30 km from the estuary) and Ichifusa Dam (a multipurpose dam, 90 km from the estuary) were constructed on the mainstream.

The Kumagawa River is one of the three Japanese rivers with the biggest rapids, and the people in the Kumagawa River basin lived with the river before the dams were built. They secured water for their daily life and caught *Ayu* (sweetfish) from the river. *Ayu* fishing and its related industries formed the foundation of the local economy. In addition, boats were the main means of transportation and river transportation business thrived. Although there was a flood almost every year, people did not suffer much because they had the wisdom and experience to avoid or minimize the damage. On balance, the benefits of floods, such as an ample supply of water and sand for the growth and reproduction of *Ayu* were greater than any damage caused.

However, people's lives changed completely after the three dams were built on the mainstream. When floods occurred, the water level rose at an unprecedented pace, and a large amount of mud piled up inside houses and on roads, releasing a foul odour. As people lost their boats, household belongings and houses, they started to use the word "*Suigai*" or "damage from water", to mean flood.

Whenever it rained heavily, floods occurred and there was no doubt that the large amount of mud left when the waters receded was attributable to the dam's operation. However, the national government planned to construct a huge new dam, which they said would prevent flood damage. This was the Kawabe River Dam, planned on the Kawabegawa River, a tributary of the Kumagawa River. People in the river basin strongly opposed it, and the campaign against the project spread not only to the communities in the entire river basin but also to the entire prefecture. When public opinion against the Kawabe River Dam Project was as its height, the water rights renewal period of the Arase Dam, due in March 2003, was approaching. A campaign demanding the removal of the Arase Dam was also developed, and it took place in tandem with the campaign against the Kawabe River Dam Project. Public opinion against these dams changed the politics, and the government decided to remove the Arase Dam in 2002, and it was planned that the water rights would be renewed for seven years only, until the dam removal work commenced in 2010. However, the new governor, who took office in 2008, froze this plan and decided to maintain the Arase Dam. This decision made the dam removal campaign even more intense, and as a result, the

government decided that the Arase Dam would indeed be removed. Removal work started in April 2012, two years behind the initial schedule and was completed at the end of March 2018. The total cost of the dam removal project was about 8.7 billion yen, of which the cost of removing the main structure of the dam was about 1.4 billion yen.

Changes in the environment since the start of dam removal work

Changes in the environment due to the removal work did not start after the completion of the work, but had already started in 2002, when the sluice gates were fully opened for two months in winter in preparation for the removal work. The work process that impacted the river environment can be roughly divided into the following four stages.

1. From November 2002, when the sluice gates were fully opened in winter, to 31 March 2010, when the water rights expired.
2. From 1 April 2010, when the sluice gates were always fully open, to 10 June 2013, when the water level of the dam reservoir was reduced by releasing the water through mechanical operation.
3. From 2013, when the water level dropped, to 13 March 2016, when the water passage on the right bank was restored.
4. From 2016, when the river flow returned to its original state following the restoration of the water passage, to the present.

Soon after the sluice gates were fully opened during the winter months, which coincided with the *Aonori* (green laver) harvest season, the water quality in the lower reaches improved. To the surprise of fishermen, the *Aonori* harvest grew to 5 to 7 times the previous level. In addition, as the sand supply to the tidal flats increased, the Common orient clam, Brackish water crab, Common oriental lamp shell and other species that occur in sandy tidal flats also increased.

As the removal project progressed, shallows and deeps started to be formed, and water quality improved greatly. The Kajika frog, Dark sleeper, Crested kingfisher and other species were also found in the mainstream. In addition, with the restoration of rapids with fine gravel, the habitat and spawning grounds of *Ayu* have increased, and many fishermen and anglers have come back to the river. In the estuary, sand has returned to the tidal flats, which was once too muddy to walk on. Seaweed beds that had not been seen at all have revived, bringing back many shrimps and bottom fish such as the Right eye flounder, as well as eels.

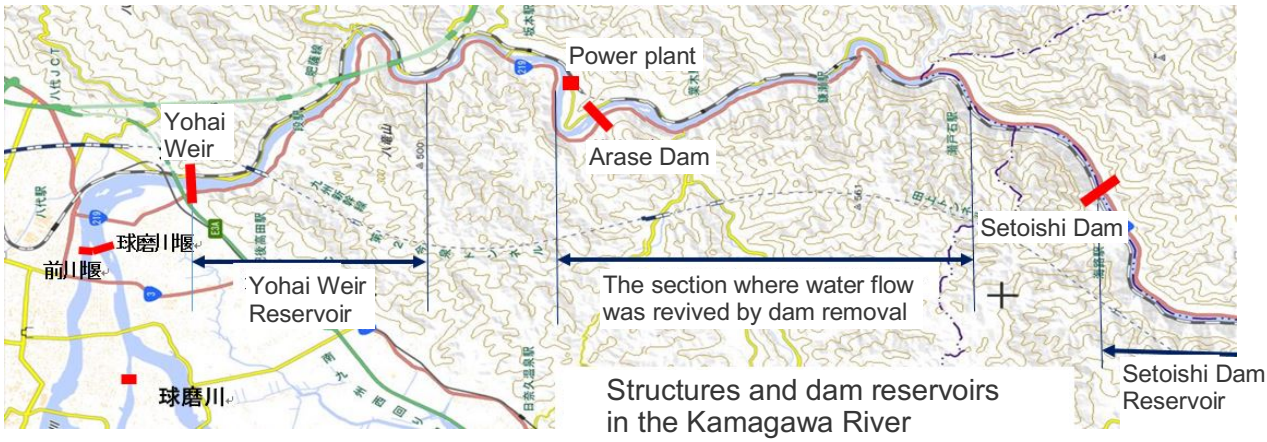
The most notable change is that the locality of Sakamoto-cho has regained its liveliness. The old Japanese style hotels which had been closed resumed operations, and the *Ayu yana* restaurants, which are built right next to the *Yana* (traditional river fishing traps), in order to serve a variety of *Ayu* dishes, also resumed operations. Three companies operate river-related recreation services such as canoeing and rafting. A range of events are held frequently in the community. There is no doubt that the number of visitors to Sakamoto-cho has increased dramatically, although this may not necessarily lead to population growth.

Issues regarding the restoration of the Kumagawa River

The change in the environment caused by the removal of the dam occurred faster than expected. However, in the case of the Kumagawa River, river crossing structures remain both upstream and downstream. The Setoishi Dam is located 10 km upstream of the former Arase Dam site, and the Yohai Weir is located 8 km from the estuary. Therefore, the water flowing downstream is water made excessively nutrient rich in the Setoishi Dam reservoir, and this limits water quality improvement. Also, sediment supply from upstream and the migration of fish are both hindered. As a result, during the spawning season the parent *Ayu* cannot travel downstream, and no increase in anadromous fish species is expected. In

addition, even the fish spawning grounds which were formed after the removal of the Arase Dam generated salmon fry, it may not make any difference because the reservoir of the Yohai Weir keeps the juvenile salmon from passing through and making their way into the open sea. Moreover, the fine gravel on the riverbed and river side that had returned to the streams after the removal of the Arase Dam will eventually be washed away, and it may not be replenished by sediment transport from upstream. The state of the riverbed is more likely to deteriorate rather than be improved. Ultimately, removal of the Setoishi Dam and the solution of problems associated with the Yohai Weir are essential for the restoration of the Kumagawa River.

I hope that the growing interest of local people in the Kumagawa River, which is on its way to recovery, will lead to the removal of the Setoishi Dam.



Structures and dam reservoirs in the Kamagawa River

■ Report 3

The Nature Restoration Process of the ROK's Four Major Rivers

Kim Kyung-cheol

Manager of Technical Committee on Water Environment, and Member of Planning Committee to Investigate and Evaluate the Four Rivers Project (PCF), both under Commission on Investigation and Evaluation of the Four Rivers Project, Ministry of Environment, the Republic of Korea

1. Overview of the Four Major Rivers Project

The project started with the following objectives:

- Flood control
- Drought relief
- Water quality improvement
- Ecosystem restoration

During the construction period from 2009 to 2012, approximately 500 to 600 million tons of sediments were dredged, and 16 weirs were constructed in the Four Major Rivers. Approximately, KRW (Korean *won*) 22 trillion (USD 18 million) was invested into this project. The main goal of the project was to secure 1.3 billion tons of water, to prevent droughts and to control floods. However, drought had rarely occurred along these rivers, and when it had occurred, it had occurred mainly in the mountains in the island areas of the country. Therefore, the Four Major Rivers Project had flawed objectives from the start.

2. Problems emerged after the completion of the Four Major Rivers Project

The project has been touted as a measure to improve water quality. However, after the completion of the works, serious water blooms occurred and threatened the safety of drinking water. The impact of the water blooms was severe particularly in the Nakdong River with water intake source in its upstream. In this river, microalgae thrived from upstream to downstream.

The aquatic ecosystem deteriorated sharply, and many wetlands in the watershed were damaged and disappeared, with 40% of wetlands lost in total, compared to before the project's implementation. In particular, the Nakdong River has lost 33.7 million square meters of wetland area.

Main habitats for migratory waterbirds in the Nakdong River estuary, including the Haepyeong wetlands, were also significantly degraded. Most of the Haepyong wetland area, which served as a stopover for the Hooded Crane, has disappeared, and the population of the Hooded Crane migrating to this area has declined to one twentieth of that before the project.

3. The Government audits of the Four Major Rivers Project

Following the completion of the project, the Board of Audit and Inspection conducted a total of four audits. In 2017, the Board of Audit and Inspection conducted an audit of the entire process of the project promotion. As a result, the total cost over the next 50 years was estimated at 31 trillion *won* (USD 26.7 million), while the benefits from the project were estimated at a mere 6 trillion *won* (USD 5.0 million). In

addition, the auditors assessed that this project had no flood control effect, the claimed main objective of the Four Major Rivers Project.

These audit results revealed that the Four Major Rivers Project failed to secure procedural legitimacy and that it brought about very unfavorable consequences.

4. Restoration of the Four Major Rivers

Civil society groups had predicted that the project would come to be seen as a mistake and would eventually destroy the river ecosystems. These predictions came true immediately after the project was completed. This prompted civil society groups to carry out campaigns to demand the restoration of the Four Major Rivers. As a result, the Moon Jae-in administration adopted the restoration of the Four Major Rivers as part of the national policy agenda.

In August 2018, the Moon Jae-in administration established the Commission on Investigation and Evaluation of the Four Rivers Project in the Ministry of Environment. In addition, four technical committees and the Planning Committee to Investigate and Evaluate the Four Rivers Project (PCF) were set up in order to draft a treatment plan of weirs from the Four Major Rivers.

These were the:

- Technical Committee on the Aquatic Environment
- Technical Committee on Irrigation and Hydrology
- Technical Committee on Social and Economic Affairs
- Technical Committee on Watershed Cooperation

The Commission on Investigation and Evaluation of the Four Rivers Project collected various basic data and reported to each Technical Committee, which then examined the plan from their professional standpoint based on the data. The PCF gathered opinions from the Technical Committees and passed a resolution on the treatment plans after deliberation.

Gongju Weir after the opening

The PCF made an announcement on the treatment plans of weirs from the Geum and Yeonsan Rivers: complete demolition of two weirs (Sejong and Juksan Weirs); partial removal** of one weir (Gongju Weir); and permanent opening of the sluice gates at two weirs (Baekche and Seunchon Weirs). The plans were prepared through a comprehensive review of various aspects of the rivers such as water quality, aquatic ecosystem, irrigation and hydrology, as well as of the results of an opinion poll. The decision of the PCF will be finalized by the National Water Management Committee, the highest authority of national water management

** *Partial removal: In the infrastructure, the superstructure where vehicles and pedestrians pass through will remain, and structures such as sluice gates will be removed*

5. Forthcoming challenges

It is true that some politicians and farmers are against the plans to remove weirs from the Geum and Yeonsan Rivers. They expressed their objections after the plans were announced. However, it may not be possible to block this major trend of restoration of the Four Major Rivers. The PCF will also announce plans of weirs from the Nakdong and Han Rivers by the end of 2019. It is also establishing implementation plans for the removal of weirs from the Geum and Yeonsan Rivers. Furthermore, the committee is currently developing a concrete plan to support the vision for the ecosystem restoration of the Four Major Rivers. The implementation plan is supposed to include procedures such as an environmental impact assessment, a preliminary feasibility study, etc., reflecting various national basic plans, and the vision is expected to provide a direction towards appropriate restoration of rivers.

■ Report 4

World Wetland Network
How WWN Works for the Convention: Ramsar COP 13

Louise Duff
Chair of World Wetland Network

Ramsar COP 13 – Pre-COP Meeting

- 9-12 noon Monday 21st October 2018, Admiral Plaza Hotel Dubai
- 58 delegates representing NGOs from 23 countries across every region of the world.
- Republic of Korea and Japan were very well represented and highly active through the COP
- Presentations:
  - Advice for NGO's to participate effectively at the COP – the late Dr. Lew Young
  - Wetlands and NGOs of the Middle East – Jacky Judas, Emirates Nature – WWF
  - Youth Engaged in Wetlands (YEW) – Elise Allély-Fermé
  - Global Wetland Survey Results – Chris Rostron, WWN and WWT
  - 10-years of achievement for biodiversity in rice paddies – Mr. Kurechi, RNJ
  - 10-years of success engaging NGOs in the Ramsar Convention – Louise Duff, WWN

Ramsar COP 13 – Opening Statement

- Presented on Tuesday 23 October after the admission of observers
- Maia Sarrouff Willson, Research and Conservation Director, Environment Society of Oman
- WWN called on parties to engage with NGOs, local communities, indigenous peoples, and young people, at all levels, including Ramsar Site assessment and management, National Wetland Steering Committees and through active involvement at the COP
- We encourage the Contracting Parties to support full participation, transparency, capacity building, and learning among the different players in wetland protection. But to ensure this is effective, resources are needed. Small inputs at the local level will yield significant benefits for wetland wise use and conservation.
- Secretary General's report: a high number of Contracting Parties submitted their National Reports, but there are errors, especially regarding the status of Ramsar Sites.
- **We called upon Parties to engage with NGOs in the compilation of future Reports.**
- Regarding the List of Wetlands of International Importance, we noted the rate of designation of Ramsar Sites around the world is slowing down
- **Invited the Secretariat to explain this trend**
- 69% of the Ramsar Information Sheets from 86% Parties are out of date or missing.
- 16% increase in the number of Ramsar Sites reported as being under threat and it takes on average 8 years for Parties to address the threats.
- **We called upon the COP to investigate establishing a compliance mechanism for updating the information on Ramsar Sites and addressing threats to Ramsar Sites.**
- World Wetland Network recommended exploring mechanisms that directly engage grass roots NGOs

Ramsar COP 13 – Youth Engaged in Wetlands

- Side event on Wednesday 24th October 2018, plus a strategic planning workshop

- WWN provided a platform to support the YEW activities, as well as mentoring, administrative and fundraising
- The Forum was a tremendous success, attracting a lot attention at the COP. A full room of 71 people participated, including high school students from Dubai, young international delegates and others who work in youth engagement.
- It was convened by Elise Allély-Fermé, Lucia Gamarra, Gab Mejia
- Showcased inspiring examples of youth wetland projects
- Engaged participants in group discussion on the challenges and opportunities for young people to conserve wetlands.
- Speakers included:
    - Aysha AlRemeithi from the Dubai Youth Council
    - Elise Allély-Fermé from the Youth Engagement Thematic Group on youth engagement
    - Samantha Kwan from YouthCAN Samoa on youth in conservation and policy-making
    - Manouore Njoya Awawou from the Réseau Africains des Jeunes sur les Zones Humides on youth capacity building and International Youth Program For Wetlands
    - Takuma Satoh and Sreeya Patnaik from Youth Ramsar Japan on youth participation in wetland conservation from Ramsar COP9 to COP13
- Strategic planning session
- Now recruiting new participants
- Elise Allely appointed as youth representative to WWN Committee

Ramsar COP 13 – Youth closing statement

- Collaboration between YEW and WWN.
- Presented by Anne Valentina Bourbon from Emirates Nature-WWF with Takuma Satoh from Youth Ramsar Japan.
- Called on the parties to fully commit to implementation of the resolutions, and to involve youth in policy making and implementation of the convention.
- Proposed the theme for Ramsar COP 14 as *Youth and Wetlands*.
- This proposal was supported by Chile, Japan, Republic of Korea, Switzerland and Tunisia.

Global Wetlands Survey: SWS, WWT, WWN

- 541 valid survey responses from 92 countries, all Ramsar regions
- Represented 10.4% of all Ramsar Sites globally, covering 239 sites with more than 32.5 million hectares in area.
- It is encouraging that over 75% of wetlands were reported to be in a Fair or Good current state.
- However, one-third of Ramsar Sites were reported in Poor state, primarily in Latin America, the Caribbean and Africa.
- The survey identified both positive and negative drivers for the state of wetlands.
- The number one positive driver associated with wetlands being in a good state is local community awareness.
- Other positive drivers identified by the survey were implementing conservation measures, cultural values/traditions and tourism.
- The most widely reported negative drivers:
    1. urban/industrial pollution
    2. species introduction
    3. agricultural run-off
    4. erosion

5. urban development/infrastructure

Other WWN activities

- Chair Louise Duff signed a letter acknowledging the Municipal Government of Busan, ROK, for announcing their intention to designate Nakdong Estuary to the Ramsar list. This has been a long, hard-fought campaign by the Korean Wetland NGO Networks.
- Provided a platform for Tunisian NGO Réseau Enfants de la Terre (RET) to advocate for protection of Sebkhet Sejoumi wetland.
- WWN had an exhibition stand for the first time, where we hosted daily meetings for NGO delegates. The stand provided a networking space for members and guests, and was a hive of activity throughout the COP.
- We had 26 new members register to join WWN.

Next step: WWN Strategic Plan 2019-2021

■ **Report 5**

The role that Japanese NGOs have played in the wetland conservation

Yoshihiro Natori
Chair of Wetlands International Japan

I have been engaged substantially with wetland issues and the Ramsar Convention since 1990; as a government officer for the first 20 years and as a representative of a not-for-profit organization in subsequent years. I would like to describe the role played by NGOs from the standpoint of both the government and NGOs.

First, I need to acknowledge the efforts by NGOs that lay behind Japan's accession to the Ramsar Convention. In 1977, NGO members, with the intention of helping Japan become a signatory to the Ramsar Convention, formed the Japan Committee for International Waterfowl and Wetlands Research Bureau, the predecessor of Wetlands International Japan (WIJ), which I represent. They made a suggestion to the Japanese government and in 1980 Japan became a Contracting Party to the Ramsar Convention.

Japan's awareness of wetlands and the Ramsar Convention has increased, and efforts to conserve wetlands have made significant progress since the Fifth Meeting of the Parties to the Ramsar Convention (COP 5) in Kushiro in 1993. At that time, I was the director of the Preparatory Office for the Kushiro Conference set up by the Environment Agency. In an effort to heighten the momentum towards the Kushiro Conference, the Environment Agency and the Ramsar Center Japan, a non-governmental organization, co-sponsored "the Asian Wetland Symposium" in 1992, the year before the Kushiro Conference. The symposium's participants included not only governments, but also researchers, wetland managers, NGO members and many individuals who were engaged with wetland issues in Asia. At that time, it was a unique initiative that brought NGOs and governments together, and it became a tradition to hold the symposium one year in advance of each Ramsar COP. This initiative was recognized in the *Resolution IX.19: The importance of regional wetland symposia in effectively implementing the Ramsar Convention* of COP9 in 2005.

I had been concerned that despite it being a long-awaited and important international conference, media coverage of the Kushiro Conference would be limited to Hokkaido. Ironically however, the Kushiro Conference was reported throughout the country, because at that time many NGOs were working to protect wetlands from development plans in various parts of Japan such as the Chitose Diversion Channel, reclamation of both the Fujimae and Wajiro Tidal Flats, and Isahaya Bay.

Among them, the initiative of an NGO to save the Fujimae Tidal Flats prompted the Ministry of the Environment to send an opinion statement on the reclamation plan to Nagoya City. As a result, the Fujimae Tidal Flats was included in the List of Wetlands of International Importance in 2002.

The late Dr. Tatsuichi TSUJII often said, "Japanese history books such as *Kojiki* (Records of Ancient Matters) and *Nihon Shoki* (Chronicles of Japan) are full of records of many wetlands." There are indeed many wetlands of various types in Japan. This led me to follow the *Resolution VII.11* (1999) urging the contracting parties to fulfil the mid-term objective of doubling the number of designated sites which fully represent the diversity of wetlands, and had 20 new wetlands registered at COP 9 in 2005, when I was the director of Wildlife Division at the Ministry of the Environment. At that time, the candidate sites for designation were selected, if anything, by a top-down decision-making approach. But I found that the more careful the approach we took to reach an agreement with local NGOs and groups on designating their wetlands as Ramsar Sites, the more successfully conservation or restoration of those wetlands and Wise Use and CEPA initiatives on the ground were carried out. One such example is seen in Kuju

Bogatsuru and Tadewara-Shitsugen (Marshlands). A local group “Kuju Nature Preservation Society” took an initiative to resume grassland burning to preserve the marshlands and launched a children's activity group “Team Tadewara - *Higo Tai* (Globe thistle) Conservation Association”.

In relation to the resolution of the Ramsar Convention, Japanese NGOs cooperated with Korean NGOs to prompt the two governments to propose COP10 Resolution X.31 “Enhancing biodiversity in rice paddies as wetland systems” in 2008. This resolution has been followed up by the Convention, and NGOs have been holding round-table discussions with the Ministry of Agriculture, Forestry and Fisheries on the implementation of the resolution.

There are two councils in Japan – one for the promotion of the Ramsar Convention and the other for wetland conservation.

One is the National Liaison Conference for the Promotion of the Ramsar Convention. The Ministry of the Environment serves as the secretariat for this conference, which consists of related ministries such as the Ministry of Foreign Affairs, Ministry of Agriculture, Forestry and Fisheries and Ministry of Land, Infrastructure, Transport and Tourism, and local governments with designated wetlands and NGOs. WIJ serves as the coordinator for NGOs, and several NGOs that are members of WIJ attend the meetings of the Conference.

The other is the “Domestic Committee for Ramsar Sites related Municipalities in Japan”, which was established under the initiative of municipalities with designated wetlands to make the Kushiro Conference a success. It is recognized by the Ramsar Secretariat as a rare initiative to organize such a committee at the local government level. WIJ provides administrative support in managing the Committee’s website and implementing training programs. WIJ’s constituent non-governmental organizations and those that manage various wetland centres participate in the meetings of the Committee as observers.

Furthermore, in academic terms, the “Japan Wetland Society” was established about 10 years ago. The membership comprises of not only researchers but also NGOs, local government officials, and companies. It is a unique society whose activities are based on the integration of humanities and arts with wetland sciences.

Although I have already introduced Fujimae Tidal Flats as an example of wetlands which were designated as a Ramsar Site, I would like to mention two more cases.

NGOs with an intention to have Nakaikemi-shicchi (Wetlands) designated as a Ramsar Site invited an officer of the Ministry of the Environment, who was in charge of the Ramsar Convention to a local symposium. They explained to the officer that their wetlands meet the Ramsar Criteria for inclusion to the Ramsar List and sought advice for designation of their wetlands as a Ramsar Site. They followed the officer’s advice and succeeded in having Nakaikemi-shicchi included in the List of Wetlands of International Importance in 2012.

Although Watarase-yusuichi (Reservoir) also met Ramsar Criteria, it was not designated because conservation measures were not taken by the Ministry of the Environment. The NGOs approached the Ministry of Land, Infrastructure, Transport and Tourism, which then granted a legal status of protected area to the reservoir under the River Law. As a result, Watarase-yusuichi was designated as a Ramsar Site in 2012.

NGOs also play a major role in CEPA.

For example, most NGOs are involved in managing wetland centres throughout Japan. Continuity becomes an issue if they are managed by the government, but continuity of operation is guaranteed by entrusting the management of those centres to NGOs.

The Ramsar Center (mentioned above) has been organizing an exchange programme entitled “KODOMO Ramsar” for children who are engaged in conservation activities at various wetlands since 2005. This programme leads to human resource development.

“Osaki Ikimono Club” in Osaki City, Miyagi Prefecture, has been supported by several NGOs in the

city that bring their unique programmes to cooperate with the activities of the club composed of elementary school students in the city.

As stated above, Japanese NGOs have played a range of roles in wetland conservation.

The 8th Conference of the Parties to the Washington Convention held in Kyoto in 1992 may have led to a change in Japanese NGOs. Until then, many Japanese NGOs seemed to have been waving the anti-government flag. Japanese NGOs were inspired by the sight of international NGOs such as IUCN and WWF, that supported proposals using scientific evidence and expressed their opinions with great presence at the Kyoto Conference. It seems that Japanese NGOs, after having a similar experience at the Kushiro Conference, have transformed into advocacy NGOs and played the roles described above.

As the Ramsar Convention is intended to promote conservation and wise use of wetlands, it is easier to understand its targets than those of the Convention on Biological Diversity. Towards the goal of increasing the number of designated wetlands, the government and NGOs, while contending with each other at times, have worked together to implement the Convention. Such a relationship is likely to continue in the future.

The Ramsar Convention currently focuses on the contribution of wetlands to achieving the SDGs. I believe that NGOs can play a significant role in ensuring that “no one is left behind”.

Position Paper for Ramsar COP13

To stop the destruction of our wetlands by development projects Let's protect the natural water flows

Ramsar Network Japan (Non-profit Organization)

Ramsar Network Japan (a non-profit organization) hereby presents its position paper to the 13th Conference of Parties (COP13) of the Ramsar Convention with recommendations to stop the global decline of wetlands.

The Sustainable Development Goals (SDGs) adopted at the United Nations Summit on Sustainable Development in September 2015 have set several goals seeking to protect wetlands, including protecting and restoring water-related ecosystems. The Ramsar Strategic Plan 2016-24 lays out four overall goals and 19 specific targets in recognition of the growing human impacts on wetlands. Observations of decline of wetlands find that impacts of human activities such as development projects are the main drivers of wetland loss and degradation. Development projects are particularly concentrated in the catchment and coastal areas with high density of population and human activities. The most common type of such projects is the construction of artificial structures that alter the natural water flows. The status report of wetlands in Japan by the Ministry of the Environment*1 has shown that many wetlands are deteriorating, and more than half of the factors are developments and other human activities such as shoreline modifications by reclamation, drainage by double-dyke system, construction of massive seawalls, dams, weirs, embankments and large tunnels.

This position paper is intended to mainly examine cases in Japan and South Korea to verify if existing resolutions and guidelines of the Convention are sufficiently utilized by the Contracting Parties and to provide recommendations for solving existing challenges.

1. Are Resolutions of the COPs Utilized?

Existing resolutions and guidelines have repeatedly noted the importance of protecting the catchment and coastal areas and natural characteristics of water regimes.

For instance, Paragraph 146 of Annex to *Resolution X.19: Consolidated Guidance for integrating wetland conservation and wise use into river basin management* points out that "it is almost always more cost effective to maintain natural wetlands than to drain or convert the wetlands to other (often marginal) uses and then try to provide the same services through structural control measures such as dams, embankments, water treatment facilities, etc.". As the resolution suggests, Parties that implemented reclamation projects by double-dyke system such as those in Isahaya Bay (Japan), Saemangeum (ROK) and other regions paid a high price for destroying their natural wetlands. In the case of the Isahaya Bay reclamation project, the government invested a large amount of budget to improve the deteriorated water quality in the regulating reservoir and to compensate for serious fishery damage but failed to make any improvements. As the crop harvest from the reclaimed farmland was also affected by the amplified seasonal temperature variation, there are strong calls for opening the sluice gates to facilitate water exchange with the open sea. *Paragraph 178: In setting quantitative management objectives for wetlands in the river basin, it is particularly important to maintain the natural characteristics of water regimes as far as possible* is also applicable to infrastructure which are already in use. Reclamation by double-dyke system and dam and weir projects are destined to disturb the natural characteristics of water regimes. The Four Major Rivers Project in the Republic of Korea, which entailed large-scale dredging and construction of 16 weirs, caused massive environmental destruction, contrary to the alleged purpose of the project. It wiped out the greenery from the river basin and stagnated the flow, making the rivers inaccessible for humans. Once the clean water in the river has now become rotten with water bloom, and greatly affected the quality of tap water and other aspects of human life. Nagara River Estuary Weir in Japan destroyed the brackish water ecosystem, causing a dramatic decrease of anadromous fish such as sweet fish and red-spotted masu trout and

*1 Highly significant wetlands from the perspective of biodiversity [Important Wetlands in Japan] Biodiversity Policy Division, Nature Conservation Bureau, Ministry of the Environment, April 2016

shellfish such as basket clams. As there are many successful cases in the world where natural characteristics of water regimes were restored by removing dams and opening sluice gates, learning from such cases is important. Although Hwaseong wetlands of South Korea has escaped serious wetland loss by having parts of the levee open to introduce seawater, it is urgently needed to be included in the Ramsar List for better conservation and restoration.

The Annex to Resolution X.19 points to the need to pay attention to *Resolution VIII.1: Guidelines for the allocation and management of water for maintaining the ecological functions of wetlands.* These guidelines clearly note that "to maintain the natural ecological character of a wetland, it is necessary to allocate water as closely as possible to the natural regime".

Also, *Annex to Resolution VIII.4: Principles and guidelines for incorporating wetland issues into Integrated Coastal Zone Management (ICZM)* lays out such principles as *Principle 7: Coastal wetlands are highly vulnerable to degradation and loss, but although easily degraded their restoration is costly and sometimes impossible,* and *Principle 8: ICZM should be linked with river basin/catchment management and oceans and fisheries management so as to secure the conservation and sustainable use of coastal wetlands.* It is important to recognize the continuity of land, rivers and seas, and the delicate nature of coastal wetlands and sandy beaches. However, in reality various development projects are degrading wetlands. Even though planners alleged to have taken the natural environment into consideration by switching the plan from coastal reclamation to offshore artificial island in such cases as Awase Tidal Flats and Hakata Bay in Japan, construction of the artificial island set a vicious cycle in motion: obstruction of the tidal current and seawater exchange, progress of eutrophication, harmful algae bloom and sludge build-up over the entire tideland, causing a serious damage to the remaining wetlands.

A reclamation project is underway off the Henoko coastal area, which has the largest seagrass beds around Okinawa island. Revetment works are in progress and soils and sediments are about to be dumped into the bay, a place frequented by dugongs and sea turtles. The revetment works have impacted the biodiversity by impeding the water flow and causing the decrease of seagrass. The construction of colossal seawalls along the coastal region of Tohoku, which was affected by the Great East Japan Earthquake, severed the connection between the sea and land and disrupted the nutrient supply mechanism through groundwater. This has raised a concern about the deteriorating ecosystem of the entire region and potential collapse of the rare marine ecosystem.

Wetlands such as sandy beaches, mangroves and seagrass beds are essential for the survival of creatures migrating between the sea and land. Estuarine areas are indispensable for amphidromous fish such as gobies which spend their juvenile period in estuaries. These creatures will surely be perished if the natural water flow in the estuarine and coastal areas is altered by a development project.

The Draft Resolution on Blue Carbon Ecosystems for consideration by COP13 recognizes the importance of conserving and restoring the blue carbon ecosystems (coastal seagrass beds, mangroves, salt marshes etc.) that sequester carbon. Isn't it crucial to regulate development projects that may impede the natural characteristics of water regimes in order to conserve the blue carbon ecosystem?

Guidelines Box N: Guidelines for assessing and minimizing the impacts of land use and water development projects on wetlands and their biodiversity (Annex to Resolution X.19) urges the Contracting Parties to "carry out Environmental Impact Assessment (EIA) and Cost Benefit Analysis (CBA) studies for land use or water development projects which may have significant impacts on rivers and wetlands, using independent multidisciplinary teams and in consultation with all stakeholders, and consider alternative proposals including the no-development option". In other words, it is necessary to start the assessment process from the very initial stages of project preparation, ensure that the assessment is carried out in a fair and objective manner taking the viewpoint of a third party, hold consultations with all stakeholders including local residents who may be affected by the project and consider alternative proposals including the "no-development" option. However, common practice in Japan is problematic. The assessment team typically reflects the intention of the project operator and consultation with local residents is a mere formality because by that time, the assessment in favor of the project implementation has already been made final.

The same holds true for projects to restore wetlands which were degraded by development projects. As ex-post evaluation is also a mere formality, it is extremely rare to find a case where a project to

destroy wetlands was converted to a restorative one in Japan. *Resolution VIII.16: Principles and guidelines for wetland restoration call upon* the Contracting Parties to utilize these principles and guidelines in undertaking national inventories of wetlands with the potential for restoration. Even though the guidelines for wetland restoration are in place, opportunities for restoration have been missed because the governments evade their duties of including those with potential for restoration in their national wetland inventories.

It is noticeable in the case of dams, weirs, etc. that project operators - in many cases, governments - tend to overestimate the project's purpose such as disaster prevention and irrigation. In the case of Ishiki Dam Project in Nagasaki Prefecture, using the outrageously inflated water demand projection as the basis for the project implementation, the government is trying to force its way through by threatening the local residents with potential expropriation of the land that they inherited from their ancestors. Also, when the heavy rain hit Western Japan in July this year, the alleged flood control effect of dams was called into question. State of the damage in the flooded areas revealed the dam's inability to control flood when the rainfall exceeded the assumed maximum level (it was the same as not having a dam). Moreover, when the rainfall was about to exceed the dam's holding capacity, the flow releases from the dam increased rapidly throwing the downstream communities into crisis. The collapse of a dam in the Mekong River basin in Lao PDR and the river flooding in Kerala state in southern India which occurred in August this year are also painful testimonies of disasters caused by dams.

2. We urge the Contracting Parties to implement Ramsar Resolutions in good faith.

As was stated above, existing resolutions and guidelines have not been sufficiently utilized.

The main reason may be that although the resolutions contain the Parties' obligations, there is no penalty for not fulfilling such obligations. Therefore, it seems that the Parties are less willing to comply with those resolutions. Also, while there is a problem of overestimating the purpose and necessity of development projects in their assessment, there is also a problem of underestimating the various capacities and functions that are intrinsic to wetlands. Decisions regarding wetland conservation and restoration are largely dependent on the policies of governments. Therefore, establishment of a legally-binding system is greatly anticipated.

One of the solutions may be to provide specific recommendations for corrective action to Parties that failed to comply with the resolutions. To that end, active involvement of NGOs is considered necessary. We hope that the COP will take inputs from NGOs seriously and that each Party will faithfully implement corrective actions as recommended by the COP.

[Recommendations]

1. **Contracting Parties to realize again the importance of natural characteristics of water regimes**
2. **Contracting Parties to regulate as much as possible development projects that may impede the natural water flow in order to conserve wetlands**
3. **Contracting Parties to restore the natural characteristics of water regimes to restore wetlands**
4. **COP of Ramsar Convention to return to the origin of the Convention and take advice from NGOs seriously. Then consider providing recommendations for corrective actions to Parties that have not complied with specific resolutions and guidelines**

Resolutions related "Natural Flow of Water"

COP8 Ⅷ.1 Guidelines for the allocation and management of water for maintaining the ecological functions of wetlands Annex	
	Introduction
1	Wetland ecosystems are adapted to the prevailing hydrological regime. The spatial and temporal variation in water depth, flow patterns and water quality, as well as the frequency and duration of inundation, are often the most important factors determining the ecological character of a wetland. Coastal and marine wetlands are often highly dependent on inputs of freshwater and associated nutrients and sediments from rivers.
2	Impacts on wetlands can be caused both by human activities within them and, because of the interconnectedness of the hydrological cycle, by activities that take place within the wider catchment. Human modification of the hydrological regime, by removing water (including groundwater) or altering fluxes, can have detrimental consequences for the integrity of wetland ecosystems. Insufficient water reaching wetlands, due to abstractions, storage and diversion of water for public supply, agriculture, industry and hydropower, is a major cause of wetland loss and degradation. A key requirement for wetland conservation and wise use is to ensure that adequate water of the right quality is allocated to wetlands at the right time.
5	To maintain the natural ecological character1 of a wetland, it is necessary to allocate water as closely as possible to the natural regime. The ecological character of many wetlands has adapted to past alterations of the water regime, yet they still provide important goods and services. A key step in any wetland conservation strategy is to define the desired ecological character of the most important wetlands. In any water allocation decision, it is then necessary to quantify the critical water needs of the wetlands, beyond which their ecological character will change in an unacceptable manner.
	Principles
10.1	**Sustainability as a goal.** Adequate water has to be provided to wetlands to sustain the functioning of these ecosystems, respecting their natural dynamics for the benefit of future generations. Where water requirements are not known, or where the impact of reducing water allocation to wetlands is unclear, the precautionary approach4 should be applied. The wetland ecosystem is the resource base from which water is derived. It should be managed to protect the resource base in order to provide goods and services in a sustainable manner. This requires sufficient water allocation to maintain wetland ecosystem structure and function. This is directly compatible with the "wise use" concept embodied in the Ramsar Convention, which has been defined by the Conference of the Parties as "the sustainable utilisation of wetlands for the benefit of mankind in a way compatible with the maintenance of the natural properties of the ecosystem".
	Implementation
28	Flows should normally follow the natural regime as closely as possible to maintain the natural ecology. This may be achieved by relating the magnitude, duration and timing of releases or abstractions to flows in nearby unregulated reference catchments, which will require real-time monitoring. Special abstraction/release rules should be defined for droughts, floods, and emergency situations. In cases where the dominant use of the wetland is farming (e.g., flood recession agriculture), flows may be tailored for specific requirements such as following the planting of rice on the floodplain.
30	Management of water quality also needs to follow natural processes and mechanisms as far as possible. Water quality varies naturally according to the source and anthropogenic impacts, such as discharges. Water released from a reservoir may be of different quality to that of the natural river (e.g., colder and lower in oxygen), so outlet structures should be designed to reduce such impacts.

COP8 Ⅷ.2 The Report of the World Commission on Dams (WCD) and its relevance to the Ramsar Convention	
12	URGES Contracting Parties to implement, where appropriate, Resolution VII.8 on Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands with respect to the planning and operation phases of dams, and FURTHER URGES Contracting Parties to extend this principle of participation to wider issues related to water resources management at basin level, utilising Resolution VII.18 on Guidelines for integrating wetland conservation and wise use into river basin management and Resolution VIII.14 on New Guidelines for management planning for Ramsar sites and other wetlands;
13	FURTHER URGES Contracting Parties to undertake the systematic implementation of environmental flow assessments, where appropriate, to mitigate socio-economic and ecological impacts of large dams on wetlands, and to encourage the development of appropriate centres of expertise on environmental flow assessment and implementation, and in doing so to apply the Guidelines on water allocation and management for maintaining the ecological functions of wetlands (Resolution VIII.1);

COP8 Ⅷ.4 Wetland issues in Integrated Coastal Zone Management (ICZM)	
5	AWARE that a large proportion of the world's population lives on or close to the coast and that the livelihoods of substantial numbers of people, including local communities and indigenous peoples and especially those in small island developing states, depend on the productivity and values of coastal wetlands, notably sustainable fishing and agriculture;
6	CONCERNED that many coastal wetlands have already been lost or could be degraded due in particular to land-claim, unsustainable aquaculture and exploitation of wetland resources, and pollution; and that increasing population and, in some areas, uncontrolled development, including tourism, are continuing to place great pressure on coastal wetlands and their conservation and wise use;
Annex	
A. Recognizing the role and significance of the Ramsar Convention and wetlands in the coastal zone	
Principle 2	The full incorporation of wetland conservation and wise use issues into ICZM is essential for a successful sustainable coastal management process.
26	Coastal areas are of ever-growing importance for the human population worldwide. Human activities are directly or indirectly responsible for many stresses affecting sustainability in the coastal zone, such as loss of habitat and ecological and hydrological functions, increased pollution of, and increased amounts of nutrients in, near shore environments, accelerated sea-level rise, and interception and interruption of flow of water and sediments. Many of these problems seriously affect coastal wetlands and their capacity to continue to provide vital values and functions for people and biodiversity in the coastal zone, since (as established in Principle 1) wetlands under the Ramsar Convention definition cover a very substantial part of the world's coasts.
C. Using mechanisms for securing the conservation and sustainable use of wetlands in the coastal zone	
Principle 5	Many stakeholders use coastal wetlands and must participate fully in their management.
38	Participation of local communities and indigenous peoples in ICZM is particularly important where they have customary rights or tenure in the coastal zone. The Ramsar Convention has adopted guidance on the involvement of these communities in the participatory management of wetlands (Resolution VII.8). Guidance on wetland education and public awareness has also been adopted by the Convention as its Communication, Eduation, and Public Awareness Programme (Resolution VIII.31).

Principle 7	**Coastal wetlands are highly vulnerable to degradation and loss, but although easily degraded their restoration is costly and sometimes impossible.**
42	Many coastal wetland habitats continue to be destroyed at an alarming rate, as a consequence of a wide variety of development activities. Much coastal wetland loss is effectively irreversible, particularly where major urban and industrial development is in place. Nevertheless, restoration and rehabilitation of coastal wetlands should form a component of ICZM implementation as a mechanism for redressing, where appropriate, at least some of the past of habitat loss and for reinstating the important natural coastal protection functions of wetlands. However, such restoration can be much more expensive than exercising the option to maintain naturally functioning coastal wetlands, and the success of coastal wetland restoration is generally unpredictable.
D. Addressing the integration of the conservation and sustainable use of wetlands in broad-scale integrated ecosystem management	
Principle 8	**ICZM should be linked with river basin/catchment management and oceans and fisheries management so as to secure the conservation and sustainable use of coastal wetlands.**
43	Influences and linkages of the coastal zone extend far beyond its boundaries: hinterland linkages are extended over the area of entire river basins/catchments, while the seaward influences extend beyond the outer limits of the coastal zone, affecting a number of oceanrelated economic activities. A particular challenge for ICZM is to incorporate offshore activities into the process.
44	Conversely, activities and water resource management decisions upstream in river basins can have a profound influence on coastal wetlands, for example through changes in sediment and water flow regimes (e.g. increases in discharges due to deforestation and rapid run-off; decreases through trapping of water and sediments in dams), water quantity and quality.
Guideline No. 12	**Ensuring the recognition by Contracting Parties of the linkages between wetlands, ICZM, river basin/catchment management, and oceans and fisheries management**
12.2	Identify the key barriers to the integration of issues related to coastal areas and those related to river basin/catchment areas, and work with those responsible for river basin management and ICZM to overcome them.

COP8 Ⅷ.16 Principles and guidelines for wetland restoration	
13	CALLS UPON Contracting Parties to utilize these principles and guidelines in undertaking national inventories of wetlands with the potential for restoration, applying the Framework for Wetland Inventory adopted by this Conference (Resolution VIII.6), to develop programmes to implement restoration on sites so identified, and to report their progress on these matters in their triennial National Reports to the COP;
15	FURTHER URGES all Contracting Parties to pay particular attention to the role of wetland restoration in management at the catchment and river basin level in relation to the allocation and management of water for maintaining the ecological functions of wetlands (Resolution VIII.1), integrating the conservation and wise use of wetlands into river basin management (Resolution VII.18), and transboundary action (Resolution VII.19);
Annex-Guideline	
Box 2	**Issues to address in the assessment of the usefulness and feasibility of wetland restoration projects** Assessments for the selection of appropriate wetland restoration projects should include the following questions (adapted from the Annex to Resolution VII.17): **a.** Will there be environmental benefits (for example, improved water quantity and quality, reduced eutrophication, preservation of freshwater resources, biodiversity conservation, improved management of "wet resources", flood control)? **b.** What is the cost effectiveness of the proposed project? Investments and changes should in the longer term be sustainable, not yielding only temporary results. Aim for

	appropriate costs in the construction phase and appropriate running costs for future maintenance. **c.** What options, advantages or disadvantages will the restored area provide for local people and the region? These may include health conditions, essential food and water resources, increased possibilities for recreation and ecotourism, improved scenic values, educational opportunities, conservation of cultural heritage (historic or religious sites), etc. **d.** What is the ecological potential of the project? What is the present status of the area in terms of habitats and biological values, and in particular will any current features of wetland conservation or biodiversity importance be lost or damaged? How is the area expected to develop with respect to hydrology, geomorphology, water quality, plant and animal communities, etc. **e.** What is the status of the area in terms of present land use. The situation will differ widely between developed countries, countries with economies in transition, and developing countries, and within such countries depending on local circumstances, with respect to the objectives of restoration and rehabilitation. In particular, marginal lands yielding few benefits in the present situation can often be improved. **f.** What are the main socio-economic constraints? Is there a positive regional and local interest in realising the project.

COP9 IX.1 Annex C An Integrated Framework for the Ramsar Convention's water-related guidance	
39	Human activities impact ecosystems at different places in the hydrological cycle, and thus impact water itself. Hence the water sector needs to manage water resources in the context of ecosystem management, in order to sustain the benefits/services of water for both instream and offstream uses.
46	In the IWRM (Integrated Water Resources Management) approach, it is accepted that the benefits of utilisation of water resources are not limited just to abstraction of water for offstream use, but include many other benefits/services that are dependent on healthy, functional aquatic ecosystems. These aquatic ecosystems need to be supported within a hydrological cycle whose other component ecosystems (atmospheric, terrestrial and marine) are also healthy and functional. Thus IWRM should be seamlessly connected to approaches and initiatives for planning and management in the atmospheric, terrestrial and marine components.
48	Coastal wetlands are an especially important component of the hydrological cycle, since both marine and freshwater ecosystems are often dependent on the health and ecological character of coastal ecosystems.

COP10 X.19 Wetlands and river basin management: consolidated scientific and technical guidance	
Annex	**Consolidated Guidance for integrating wetland conservation and wise use into river basin management**
	Introduction
11	The degradation and loss of wetlands is more rapid than that of other ecosystems. Primary direct drivers of degradation and loss of wetlands include "infrastructure development, land conversion, water withdrawal, eutrophication and pollution, over-harvesting and over-exploitation, and the introduction of invasive alien species" (MA, 2005). Degradation and loss of wetlands, and rapid changes in the river basins of which these wetlands are integral elements, has led to the disruption of natural hydrological cycles. In many cases this has resulted in greater frequency and severity of flooding, drought and pollution. The degradation and loss of wetlands and their biodiversity imposes major economic and social losses and costs to the human populations of these river basins through the loss of previously accessible wetland ecosystem services.

13	River basins or river catchments (the land area between the source and the mouth of a river, including all of the lands that drain into the river) and coastal and marine systems influenced by catchment discharges are important geographical units for considering the management of wetlands and water resources. Wetlands play critical roles in river basin management and, conversely, land and water-related human activities within river basins can have very significant influences on the ecological character of wetlands in those basins.
28	It is important to note here that the term "river basin" encompasses the surface and subsurface water resources, soil and land resources, wetlands and associated ecosystems, including those coastal and nearshore systems that are hydrologically or ecologically linked to the river basin. The catchment areas of groundwater resources in the river basin may not always coincide with the boundaries of surface water catchment areas, and this should be considered in defining the extent of a river basin for management and administrative purposes.
43	In summary, to improve the integration of wetlands into river basin management, attention needs to focus on three major areas of activity: • A supportive policy, legislative and institutional environment that promotes cooperation between sectors and sectoral institutions and amongst stakeholder groups; • Communication, education, participation and awareness (CEPA) programmes to support communication of policy and operational needs and objectives across different sectors, primarily the water and wetlands sectors, and amongst different stakeholder groups; • Sequence and synchronization of planning and management activities in different sectors responsible for land use, water resources and wetlands.
4	**Integrating wetlands into river basin management: getting started**
55	Existing river basin management activities may have led to significant structural modifications that affect river basins and water resources within basins, such as large dams, flood controls, and other modifications of the natural hydrological regime. Where possible, the operation of such structures should be adapted in order to take into account the protection and management of wetlands, particularly in terms of environmental water requirements.
6	**Integrating wetlands into river basin management: scientific and technical guidance at river basin level**
146	Numerous studies throughout the world have shown that it is almost always more costeffective to maintain natural wetlands than to drain or convert the wetlands to other (often marginal) uses and then try to provide the same services through structural control measures such as dams, embankments, water treatment facilities, etc. In many cases it has also been found cost-effective to restore or even create wetlands to provide these services and functions rather than to create expensive engineering structures.
178	In setting quantitative management objectives for wetlands in the river basin, it is particularly important to maintain the natural characteristics (water quantity and water quality) of water regimes as far as possible. Wetland ecosystems depend on the maintenance of the natural water regimes such as flows, quantity and quality, temperature, and timing to maintain their biodiversity, functions and values. The construction of structures that prevent the flow of water, and of channels that carry water out of the floodplain faster than would occur naturally, result in the degradation of natural wetlands and eventual loss of the services they provide. In this respect, Parties should note Resolution VIII.1, Guidelines for the allocation and management of water for maintaining the ecological function of wetlands.
Guidelines Box M:	
	Guidelines for Contracting Parties relating to the maintenance of natural water regimes to maintain wetlands **M1.** Undertake studies to determine appropriate flow regimes for meeting the environmental water requirements of wetland ecosystems in the river basin, including water quantity and water quality, considering minimum flows, taking into account

	natural seasonal and interannual variability and allowing for an adaptive approach to implementation and refinement of these flow regimes. **M2.** With this information, establish the optimum flow allocations and regimes in the river basin to maintain key wetlands and other key ecological services and functions of river basins. **M3.** In situations where available information on biological parameters and physical habitat is inadequate for a definitive determination of the environmental water requirements of wetlands, use the precautionary principle to maintain the natural situation as closely as possible. **M4.** Develop sustainable water allocation plans for the various resource users within the river basin, including allocating water to maintain wetlands. **M5.** Regulate and monitor the impacts of land use in the river basin (agriculture, urban development, forestry, mining) and major infrastructure developments (levees, embankments, roadways, weirs, small dams and cuttings) undertaken within river and flood corridors and near wetlands.
Guidelines Box N:	
	Guidelines for assessing and minimising the impacts of land use and water development projects on wetlands and their biodiversity **N1.** Develop integrated land use plans for each river basin as a means to minimise the impact of different activities and land uses on the river and wetland systems as well as local residents. (See also Guidelines B3 and B9.) **N2.** Develop and enforce appropriate regulations to control land uses, especially forestry, agriculture, mining or urban waste management, so as to minimise their impact on river and wetland ecosystems. (See also Guideline B3.) **N3.** Carry out Environmental Impact Assessment (EIA) and Cost Benefit Analysis (CBA) studies for land use or water development projects which may have significant impacts on rivers and wetlands, using independent multidisciplinary teams and in consultation with all stakeholders, and consider alternative proposals including the no-development option. **N4.** Disseminate the findings of any EIA and CBA in a form that can be readily understood by all stakeholders. **N5.** Ensure that there are adequate control and mitigation measures to minimise or compensate for impacts if land use or water development projects are allowed to proceed. **N6.** Ensure that proposals for water development projects are carefully reviewed at their initial stages to determine whether non-structural alternatives may be feasible, possible, and desirable alternatives. **N7.** Take all necessary actions in order to minimise the impact of land use or water development projects on wetland biodiversity, ecosystem services, and socio-economic benefits during the construction phase and longer-term operation. **N8.** Ensure that the project design/planning process includes a step by step process to integrate environmental issues, especially initial biodiversity/resource surveys and postproject evaluation and monitoring. **N9.** Incorporate long-term social benefit and cost considerations into the process from the very initial stages of project preparation.
231	Even though it is challenging, collaborative management of shared river basins has the potential to be a "catalyst for cooperation" (WWAP, 2006) rather than a source of conflicts.
232	In cases where a river basin is shared between two or more Contracting Parties, the Ramsar Convention's Article 5 makes it clear that these Parties are expected to cooperate in the management of such resources.

COP12 XII.2 The Ramsar Strategic Plan 2016-2024	
	Trends in Wetlands 10. At a global level, the Millennium Ecosystem Assessment7 found that inland and coastal wetland ecosystems were (in 2005) being lost at a rate faster than that of any other

	ecosystem, and the trend towards loss of wetlands resources has not been reversed since. The primary indirect drivers of this degradation and loss are identified as population growth and change in economic activity; the primary direct drivers of degradation and loss are identified as infrastructure development, land conversion, water use, eutrophication and pollution, overharvesting, overexploitation of wetland resources, climate change and invasive alien species.
	Goal 1: Addressing the Drivers of Wetland Loss And Degradation **Target 2:** Water use respects wetland ecosystem needs for them to fulfil their functions and provide services at the appropriate scale inter alia at the basin level or along a coastal zone.
	Goal 3: Wisely Using All Wetlands **Target 9:** The wise use of wetlands is strengthened through integrated resource management at the appropriate scale, inter alia, within a river basin or along a coastal zone.

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