

CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE
ESPECIALLY AS WATERFOWL HABITAT

Fifth Meeting of the Conference of the Contracting Parties
Kushiro, Japan: 9-16 June 1993

SUMMARY REPORT OF WORKSHOP B:

WISE USE OF WETLANDS

Friday 11 June: 0900 - 1230; 1400 - 1730

Co-Chairpersons: Prof S. Njuguna (Kenya)
Mr A. van der Zande (Netherlands)

Secretariat: Mr H. Lethier (Director of Conservation)
Mr S. Kobayashi (Technical Officer)

Rapporteurs: Mr H. Lethier
Ms C. Samuel

Opening the workshop with a reference to document DOC. C.5.7 (Rev.1), the Co-Chairperson for the morning session (from the delegation of Kenya) outlined the main topics which participants would be invited to discuss, the expected outputs, and the recommendations therefrom.

The Director of Conservation then gave a summary of the comments in national reports, with particular reference to Section 3.2 of the reports, on the adoption of national wetland policies which only Canada and Uganda had so far implemented [Annex 1].

Mr T. Dahl (USA), who had replaced Mr S. Eldoy as Chairman of the Wise Use Working Group, summarized the main activities carried out by the Working Group since the Montreux Conference [Annex 2]. Emphasizing the difficulty of producing a set of guidelines applicable to all countries on the implementation of the wise use concept, he called for the workshop to consider specifically the formulation of additional guidance resulting in a beneficial refinement of the guidelines. Finally thanks were given to Mr S. Eldoy for the excellent contribution he had made to the work of the Working Group since Montreux.

A presentation on the Wise Use Project was then given by the Director of Conservation, summarizing its main conclusions and detailing the 17 case studies applied in different types of wetlands [Annex 3]. The review of the project's final report had been completed and would be published after the Conference, incorporating the conclusions of the present workshop. He noted, however, that the project could not offer a miracle formula, but only provide a pointer towards the application of the wise use concept and the conservation of wetlands. In conclusion, the Director of Conservation proposed that the future framework of the project might tackle such areas as demonstration projects specifically directed at some aspects of the conservation of

wetlands, activities stimulating cooperation over wetlands and the convening of technical meetings supervised by a Scientific Committee. This was however dependent on securing future funding for the project.

The Co-Chairperson then invited comments on the three overviews.

The delegation of Norway had been pleased that its country had held the Chairmanship of the Wise Use Working Group and hoped that the main principles of the recommendations would be adopted and that the efforts of the Working Group would prove to have been worthwhile.

In response to the delegation of Kenya, the Director of Conservation clarified the methodology for selection of the case studies, which were based on existing wise use case studies carried out by IUCN and WWF, and offered a cross-section of the different wetland types and regions in different socio-economic, ecological and cultural contexts.

The Director General of IUCN questioned why governments had not adopted national wetland policies; he asked how the elements of a national environment policy or a national strategy could be integrated with wetland policy. In clarification the Director of Conservation emphasized that the formulation of a national wetland policy was both a lengthy and complicated process. The Chairman of the Wise Use Working Group commented on the political and national constraints in the formulation of policies. The delegation of Uganda stressed the advantages of national wetland policies in their specific focus on wetlands, as opposed to national environment policies, where they received only restricted attention.

In response to the delegation of Pakistan the Director of Conservation stressed that a national wetland policy could reconcile all the different interests e.g. local people, contractors, hunters, naturalists and scientists.

The delegation of Ireland commented that limitations of financial and human resources had impeded the formulation of a national wetland policy in Ireland, but good management of its sites ruled out the necessity for such a policy. However, the Irish authorities did not rule out the possibility of formulating such a policy in the future.

The delegation of Australia endorsed the comment of the Director General of IUCN and underlined the need for upstream management. The delegation of Sweden further commented upon the important role of Environmental Impact Assessments (EIAs) to determine the threats to the wetland, in terms of pollutants or more physical elements. In response, the Director of Conservation stressed the importance of these EIAs being carried out both up and downstream of the wetland, through the catchment approach. He recommended the realization of EIAs specifically adapted to the special characteristics of wetlands.

The delegation of France noted that a political commitment to improved wetland management required a national approach including: technical activities, (inventory and research), legal and fiscal measures, and sensibilization of all those involved. He emphasized the need to give legal reality to the

concept of 'catchment' in the framework of a water policy and of regulations for its implementation; and the need to ensure, at the highest governmental level, that policies on environment, land use planning and agriculture were compatible, and were kept under review. In conclusion the delegation of France referred to the efforts made in this field at European Community level in relation to the new agricultural policy.

Finally, the delegation of Canada concluded that, despite the long consultation process necessary to bring about a wetland policy, the advantages of focusing specifically on wetlands were numerous.

Brief technical presentations on wise use case studies in Germany were then given: Prof E. Rutschke of the University of Potsdam on wise use in some German Ramsar sites [Annex 4] and Dr J. Mooij of the Central Institute for Waterfowl Research and Wetland Protection on wise use of water bird populations, with special reference to White-fronted Goose *Anser albifrons* and Bean Goose *A. fabalis* in the Western Palearctic [Annex 5].

There then followed technical presentations outlining additional guidance for the implementation of the wise use concept. Firstly, Mr Cyrille de Klemm, the Bureau's Legal Advisor, made a presentation on administrative and legal requirements. Too frequently law was considered only as laying down prohibitions and penalties; it should do much more. A first step was to identify and eliminate legal provisions that encouraged destruction of wetlands. Obstacles to the management of wetlands as ecological units, resulting from splits in territorial or functional jurisdiction, should also be eliminated. The coastal zone was an example where separate agencies had jurisdiction over the land and the sea, making it impossible to establish protected areas extending over both sides of the high water mark. Another important element to be considered was the identification and management of activities potentially damaging to wetlands, a new concept appearing in the new Convention on Biological Diversity. The importance of EIA procedures adapted to specific aspects of wetlands was emphasized. A combination of area protection and process management was essential, as well as the provision of appropriate incentives to landowners or occupiers. There was also a need to provide for mechanisms and procedures to resolve conflicts of use. Legislation should be imaginative. A handbook on the range of legal instruments from all over the world could assist Parties in developing new and better adapted laws. The convening of a small group of legal experts would be useful in the identification of legal instruments which had been effective and could be proposed as examples.

Further discussion then ensued on the overview papers from the morning session. The Co-Chairperson also urged the workshop to consider the draft recommendations, the future terms of reference of the Wise Use Working Group, the implementation of the wise use concept and the requirements for additional guidance on the guidelines.

The delegation of Panama insisted on the need for encouragement of concrete actions in the framework of national wetland policies.

The observer from Tanzania pointed out that a national environmental policy could be as adequate as a national wetland policy.

The delegation of Iceland commented that the lack of information contained in the national reports on national wetland policy did not necessarily imply that countries were not interested in integrating wetland policy within their overall conservation policies. The delegation of France supported this concern.

The delegation of Algeria noted the stimulation which the Montreux Conference had created in the passing of a law on environmental impact assessment in Algeria, and emphasized the shortage of data and the lack of financial resources available to developing countries for wetland conservation.

The delegation of Chile emphasized the need to take into consideration the use and conservation of water resources in national wetland policies, and also the need to establish priorities.

The delegation of South Africa emphasized the need to redefine boundary policies to follow catchment divides rather than river courses in order to guarantee improved conservation of sites.

The observer from WWF noted the lessons that could be learned from the people actually living on the wetlands and the provision of financial incentives to the local people up and downstream of wetlands.

The afternoon session, chaired by the Co-Chairperson from the delegation of the Netherlands, opened with a presentation on inventory, research and monitoring to achieve the wise use of wetlands by Mr T. Dahl of the US Fish and Wildlife Service [Annex 6]. He pointed out some of the basic principles shared by these topics and how they might contribute to the wise use of wetlands. Inventories, research and monitoring activities should provide information. He concluded with three key points. Firstly, inventory, research and monitoring must be linked to each other and to the other elements included in the Wise Use Guidelines. Secondly, an inter-sectoral approach should be promoted. Finally, staff, funding, technology and politics all played a role in determining the success of the Wise Use concept.

Dr A. Ghosh from the Zoological Survey of India then gave a presentation on a case study relating to the treatment of sewage in Calcutta.

Mr S. Sylla of the Ministry of Environment and the Conservation of Nature, Senegal, made a presentation on training, pointing out the necessity of including the needs of the local people in the implementation of the wise use concept and of devoting attention to four aspects of training: definition of needs, the differing needs, target audience and training itself. Three types of training had to be considered: courses on integrated management, wetland management techniques, and courses for field staff.

Mr G. Castro, from Wetlands for the Americas, made a presentation on site management. The three main conclusions were that management must be adapted

to the right scale, have a specific goal and be integrated in national policies.

The delegations of the Slovak Republic, Pakistan and the USA debated on the exact sense of the word 'monitoring'.

The observer from WWF stressed the importance of monitoring at catchment level to prevent loss of money resulting from unwise management of wetlands and of the necessity to consider ecological aspects, in particular in developing countries.

Given the existence of a general environmental action policy in his country, the delegation of Ghana questioned the need for a national wetland policy and further noted the lack of financial resources to formulate and to implement such a policy.

The observer from IUCN underlined the clear divisions between the ecological and economic importance of wetlands.

The delegation of South Africa proposed increased involvement of social scientists in the process of wetland research and policy planning.

Several delegations and an observer made comments on draft recommendation REC. C.5.6 (DOC. C.5.7, Annex) on 'Wise use of wetlands' and on its annex on additional guidance for the implementation of the wise use concept. The delegation of Japan emphasized the need to adapt the contents of wetland policy to the specific characteristics of the country. He asked for the revision of references to EIAs contained in the draft recommendation, which should be more comprehensive.

The delegation of Canada commented that a national wetland policy did not necessarily need to be based on legislative requirements.

There then followed discussion on the revisions to the wording of the draft recommendations.

It was confirmed that full texts of technical presentations would be printed in the Proceedings of the Conference [see Annexes 1 to 6].

CONVENTION RELATIVE AUX ZONES HUMIDES D'IMPORTANCE INTERNATIONALE
PARTICULIEREMENT COMME HABITATS DES OISEAUX D'EAU

Cinquième Session de la Conférence des Parties contractantes
Kushiro, Japon: 9 au 16 juin 1993

RAPPORT RESUME DE L'ATELIER B:

UTILISATION RATIONNELLE DES ZONES HUMIDES

Vendredi 11 juin: 09h00 - 12h30; 14h00 - 17h30

Coprésidents: S. Djuguna (Kenya)
 A. van der Zande (Pays-Bas)

Secrétariat: H. Lethier (Directeur de la conservation)
 S. Kobayashi (Conseiller technique)

Rapporteurs: H. Lethier
 C. Samuel

En ouvrant l'atelier, le Coprésident de la séance du matin (de la délégation du Kenya) renvoie les participants au document DOC. C.5.7 (Rév.1) et présente les principaux sujets à traiter, les résultats attendus et les recommandations.

Le Directeur de la conservation résume ensuite les commentaires des rapports nationaux, et renvoie tout particulièrement à la section 3.2 des rapports, concernant l'adoption de politiques nationales sur les zones humides, à ce jour mises en oeuvre par les seuls Canada et Ouganda [Annexe 1].

M. T. Dahl (Etats-Unis d'Amérique), qui remplace M. S. Eldoy (Norvège) à la Présidence du Groupe de travail sur l'utilisation rationnelle, résume les principales activités menées par ce Groupe depuis la Conférence de Montreux [Annexe 2]. Soulignant la difficulté à produire des lignes directrices sur l'application du concept d'utilisation rationnelle, valables pour tous les pays, il invite l'atelier à étudier de près la formulation d'orientations supplémentaires pour améliorer les lignes directrices. Enfin, il remercie M. S. Eldoy de sa précieuse contribution aux activités du Groupe de travail depuis Montreux.

Le Directeur de la conservation présente le Projet d'utilisation rationnelle, résumant ses principales conclusions et exposant en détail les 17 études de cas appliquées dans différents types de zones humides [Annexe 3]. L'examen du rapport final du projet est terminé et sera publié à l'issue de la Conférence, avec les conclusions de l'Atelier B. Il constate toutefois que ce projet n'a pas pu offrir de formule miracle mais se contente de donner des indications sur l'application du concept d'utilisation rationnelle et la conservation des

zones humides. Pour conclure, le Directeur de la conservation propose que le cadre futur du projet comporte des volets tels que projets pilotes consacrés à des aspects particuliers de la conservation des zones humides, activités encourageant la coopération en matière de zones humides et ateliers techniques organisés sous la supervision d'un Comité scientifique. Il précise cependant que cela dépendra des fonds disponibles pour le projet.

Le Coprésident demande aux participants de commenter les trois documents d'introduction.

La délégation de la Norvège annonce avec satisfaction que son pays a assuré la présidence du Groupe de travail sur l'utilisation rationnelle et espère que les principes de base des recommandations seront adoptés et que les efforts du Groupe de travail n'auront pas été vains.

En réponse à la délégation du Kenya, le Directeur de la Conservation donne des précisions sur la méthode de sélection des études de cas inspirées d'études sur l'utilisation rationnelle menées par l'UICN et le WWF et qui offrent un échantillon des différents types et régions de zones humides dans divers contextes socio-économiques, écologiques et culturels.

Le Directeur général de l'UICN demande pour quelle raison les gouvernements n'ont pas adopté de politique nationale sur les zones humides. Il demande aussi comment intégrer les éléments d'une politique ou d'une stratégie nationales en matière d'environnement à la politique sur les zones humides. Le Directeur de la conservation répond que la formulation d'une politique nationale sur les zones humides est un processus long et compliqué. Le Président du Groupe de travail sur l'utilisation rationnelle fait des remarques sur les obstacles politiques et nationaux à la formulation des politiques. La délégation de l'Ouganda souligne les avantages des politiques nationales spécifiquement axées sur les zones humides par rapport aux politiques nationales sur l'environnement, dans lesquelles les zones humides ne sont qu'un élément parmi d'autres.

Répondant à la délégation du Pakistan, le Directeur de la conservation rappelle qu'une politique nationale sur les zones humides peut concilier tous les intérêts, par exemple ceux des communautés locales, des promoteurs, des chasseurs, des naturalistes et des scientifiques.

La délégation de l'Irlande déclare que, par manque de ressources financières et humaines, son pays n'a pas réussi à formuler de politique nationale sur les zones humides mais que, vu la qualité de la gestion des sites, une telle politique n'est pas indispensable. Toutefois, les autorités irlandaises n'excluent pas la possibilité de formuler une telle politique à l'avenir.

La délégation de l'Australie, se faisant l'écho du Directeur général de l'UICN, souligne l'importance de la gestion en amont. La délégation de la Suède relève l'importance des études d'impact sur l'environnement (EIE) pour déterminer les menaces pesant sur une zone humide, qu'il s'agisse de

substances polluantes ou d'éléments de nature plus physique. En réponse, le Directeur de la conservation rappelle qu'il est important que ces EIE soient conduites aussi bien en amont qu'en aval des zones humides, en adoptant l'approche du bassin versant. Il recommande que les EIE soient adaptées aux caractéristiques spécifiques des zones humides.

La délégation de la France indique que l'engagement politique en faveur d'une meilleure gestion des zones humides nécessite une approche nationale incluant des actions techniques (inventaires et recherches), réglementaires, fiscales et de sensibilisation de tous les acteurs. Il insiste sur plusieurs points:

- le besoin de donner une réalité juridique au concept de bassin versant dans le cadre d'une politique et d'une réglementation sur l'eau;
- la cohérence indispensable des politiques relatives à l'environnement, à l'aménagement du territoire et à l'agriculture, qui doit être assurée au plus haut niveau du gouvernement et faire l'objet d'évaluations.

Il évoque enfin l'effort conduit dans ce sens, au niveau de la CE, dans ce domaine de la nouvelle politique agricole.

Enfin, la délégation du Canada conclut que, malgré le long processus de consultation nécessaire pour établir une politique sur les zones humides, se concentrer spécifiquement sur ces zones comporte de nombreux avantages.

Plusieurs membres de la délégation de l'Allemagne présentent de brefs exposés techniques sur des études de cas menées, dans leur pays, en matière d'utilisation rationnelle: le Professeur M. E. Rutschke, de l'Université de Potsdam, parle de l'utilisation rationnelle dans certains sites Ramsar d'Allemagne [Annexe 4] et M. J. Mooij, de l'Institut central de recherche sur les oiseaux d'eau et la protection des zones humides évoque l'utilisation rationnelle des populations d'oiseaux d'eau, mentionnant tout particulièrement *Anser albifrons* (oie rieuse) et *Anser fabalis* (oie des moissons), dans le Paléarctique occidental [Annexe 5].

De brefs exposés techniques insistant sur les orientations complémentaires pour l'application du concept d'utilisation rationnelle sont présentés par plusieurs orateurs. Premièrement, M. Cyrille de Klemm, conseiller juridique du Bureau, parle des exigences administratives et juridiques. On considère trop souvent le droit comme un instrument qui se contente d'interdire et de sanctionner. La première mesure qui s'impose est d'identifier et de supprimer les dispositions juridiques favorisant la destruction de zones humides. Les obstacles à la gestion de zones humides en tant qu'unités écologiques, résultant de divisions juridictionnelles ou territoriales, doivent aussi être supprimés. Dans la zone côtière par exemple, la juridiction de la terre et de la mer incombe à différents organismes, ce qui empêche d'établir des aires protégées s'étendant de part et d'autre de la ligne des hautes eaux. Autre élément important à prendre en compte: l'identification et la gestion des activités potentiellement nuisibles aux zones humides, un nouveau concept qui

figure dans la nouvelle Convention sur la diversité biologique. M. de Klemm insiste sur le fait que les EIE doivent absolument être adaptées aux aspects spécifiques des zones humides. Il est essentiel d'associer la protection du site et la gestion, ainsi que de prévoir des mesures d'incitation appropriées pour les propriétaires fonciers ou les résidents. Il importe aussi d'offrir des mécanismes et des procédures de règlement des conflits entre les utilisations. La législation doit se montrer imaginative. Un manuel sur les divers instruments juridiques disponibles dans le monde pourrait aider les Parties à créer de nouvelles lois et à mieux adapter celles qui existent déjà. Il serait utile de réunir un petit groupe d'experts juridiques pour dresser la liste des instruments juridiques les plus efficaces, susceptibles de servir de modèles.

L'Atelier passe ensuite à la discussion des documents d'introduction de la séance du matin. Le Coprésident invite les délégués à se pencher sur les projets de recommandations, le mandat à venir du Groupe de travail sur l'utilisation rationnelle, l'application du concept d'utilisation rationnelle et enfin, sur la nécessité d'une orientation complémentaire pour les lignes directrices.

La délégation du Panama rappelle qu'il est important d'encourager les mesures concrètes prises dans le cadre des politiques nationales sur les zones humides.

L'observateur de la Tanzanie estime qu'une politique nationale sur l'environnement fait tout aussi bien l'affaire qu'une politique nationale sur les zones humides.

La délégation de l'Islande estime que ce n'est pas parce que les rapports nationaux donnent peu d'informations sur les politiques nationales relatives aux zones humides que les pays concernés n'ont pas l'intention d'intégrer leur politique sur les zones humides dans leur politique globale de conservation. La délégation de la France partage cet avis.

La délégation de l'Algérie indique que la Conférence de Montreux a incité son pays à adopter une loi relative aux études d'impact sur l'environnement et insiste sur le manque de données et de ressources financières disponibles dans les pays en voie de développement pour la conservation des zones humides.

La délégation du Chili souligne la nécessité de prendre en compte l'utilisation et la conservation des ressources en eau dans les politiques nationales sur les zones humides et la nécessité d'établir des priorités.

La délégation de l'Afrique du Sud insiste sur la nécessité, pour améliorer la conservation des sites, de redéfinir les politiques de délimitation des sites en fonction de la ligne de partage des eaux plutôt que du cours des fleuves.

L'observateur du WWF estime que les communautés tributaires des zones humides ont beaucoup à nous apprendre et que des enseignements pourraient être tirés des incitations financières offertes aux populations locales vivant en amont et en aval des zones humides.

La séance de l'après-midi, présidée par le Coprésident (de la délégation des Pays-Bas) commence par un exposé de M.T. Dahl, représentant de l'US Fish and Wildlife Service, sur l'inventaire, la recherche et le suivi nécessaires à une utilisation rationnelle des zones humides [Annexe 6]. M. Dahl met en lumière certains principes fondamentaux communs à ces thèmes et la façon dont ils pourraient contribuer à l'utilisation rationnelle des zones humides. Les activités relatives aux inventaires, à la recherche et au suivi devraient permettre d'obtenir des informations. Il conclut en soulignant trois points importants. Premièrement, les activités relatives à l'inventaire, à la recherche et au suivi doivent être liées entre elles et aux autres éléments énoncés dans les orientations sur l'utilisation rationnelle. Deuxièmement, il faudrait encourager une approche intersectorielle. Finalement, le personnel, le financement, les techniques et les politiques jouent chacun un rôle déterminant pour le succès de l'application du concept d'utilisation rationnelle.

Monsieur A. Ghosh, de la Zoological Survey of India, présente ensuite une étude de cas relative au traitement des eaux usées à Calcutta.

M. S. Sylla, du ministère sénégalais de l'Environnement et de la Conservation de la Nature, fait un exposé sur la formation, soulignant la nécessité de prendre en compte les besoins des populations locales dans l'application du concept d'utilisation rationnelle et de s'intéresser à quatre aspects de la formation: la définition des besoins, les différenciation des besoins, le groupe visé et la formation en soi. Il convient d'examiner trois types de formation: les cours relatifs à la gestion intégrée, les techniques de gestion des zones humides et les cours destinés au personnel de terrain.

M. G. Castro, de Wetlands for the Americas, fait ensuite un exposé sur la gestion des sites. Il tire trois conclusions principales: la gestion doit être à la mesure des besoins, elle doit poursuivre un objectif spécifique et être intégrée aux politiques nationales.

Les délégations de la République slovaque, du Pakistan et des Etats-Unis débattent du sens exact du terme "surveillance continue".

L'observateur du WWF souligne, d'une part, l'importance de la surveillance continue au niveau du bassin versant pour éviter des pertes d'argent résultant d'une gestion peu rationnelle des zones humides et d'autre part, la nécessité de prendre en considération les aspects écologiques, en particulier dans les pays en voie de développement.

Puisque le Ghana bénéficie d'une politique d'action générale en faveur de l'environnement, la délégation de ce pays remet en question la nécessité d'adopter une politique nationale relative aux zones humides et note en outre le manque de ressources financières pour formuler et mettre en oeuvre une telle politique.

L'observateur de l'UICN souligne les divisions évidentes entre l'importance écologique et économique des zones humides.

La délégation de l'Afrique du Sud propose de renforcer la participation de spécialistes des questions sociales au processus de recherches sur les zones humides et de planification des politiques.

Plusieurs délégations et un observateur font des commentaires sur le projet de recommandation REC. C.5.6 relatif à l'utilisation rationnelle des zones humides et son Annexe sur les orientations complémentaires pour l'application du concept d'utilisation rationnelle. La délégation du Japon souligne la nécessité d'adapter le contenu des politiques relatives aux zones humides aux caractéristiques spécifiques d'un pays donné. Elle estime que, dans le projet de recommandation, les références aux EIE sont incomplètes et demande qu'elles soient révisées.

La délégation du Canada estime qu'une politique nationale relative aux zones humides n'implique pas nécessairement des obligations législatives.

Le débat porte ensuite sur la révision de l'énoncé des projets de recommandations.

Il est confirmé que la version intégrale de ces exposés techniques sera versée aux procès-verbaux de la Conférence [voir Annexes 1 à 6].

CONVENCION RELATIVA A LOS HUMEDALES DE IMPORTANCIA INTERNACIONAL
ESPECIALMENTE COMO HABITAT DE AVES ACUATICAS

Quinta Reunión de la Conferencia de las Partes Contratantes
Kushiro, Japón, 9-16 de junio de 1993

INFORME RESUMIDO DEL TALLER B:

USO RACIONAL DE HUMEDALES

Viernes 11 de junio: 09.00 - 12.30h; 14.00 - 17.30h.

Copresidentes: Prof. S. Njuguna (Kenya)
Mr. A van der Zande (Países Bajos)

Secretariado: Sr. H. Lethier (Director de Conservación)
Sr. S. Kobayashi (Consejero Técnico)

Relatores: Sr. H. Lethier
Sra. C. Samuel

El Copresidente de la sesión de la mañana (de la delegación de Kenya), tras inaugurar el Taller y en referencia al documento DOC. C.5.7 (Rev.1), señaló los principales temas que se someterían a los participantes para debate, los resultados previstos y las recomendaciones consiguientes.

El Director de Conservación hizo a continuación un resumen de las observaciones contenidas en los informes nacionales, en especial las correspondientes al apartado 3.2 de los informes referentes a la formulación de políticas nacionales de humedales, al que sólo habían respondido hasta ese momento el Canadá y Uganda [Anexo 1].

El Sr. T. Dahl (EE.UU), que había sustituido al Sr. S. Eldoy (Noruega) como Presidente del Grupo de Trabajo sobre el Uso Racional de los Humedales, resumió las principales actividades que había llevado a cabo el Grupo desde la Conferencia de Montreux [Anexo 2]. Tras subrayar las dificultades que planteaba la elaboración de un conjunto de directrices que pudieran utilizar todos los países para aplicar el concepto de uso racional, pidió al Taller que examinara en concreto la posibilidad de dar nuevas orientaciones que refinaran las directrices. Finalmente, se agradeció al Sr. S. Eldoy su excelente contribución a la labor del Grupo de Trabajo desde Montreux.

El Director de Conservación intervino a continuación sobre el Proyecto de Uso Racional, resumiendo sus principales conclusiones y detallando los 17 estudios de casos de uso racional en distintos tipos de humedales [Anexo 3]. Se había ultimado la revisión del proyecto de informe final, y este sería publicado después de la Conferencia incorporando las conclusiones del presente Taller. Señaló, no obstante, que el Proyecto no podía ofrecer soluciones milagrosas sino sólo una

guía para la aplicación del concepto de uso racional y la conservación de los humedales. En conclusión, el Director de Conservación propuso que en el marco futuro del Proyecto se abordaran cuestiones tales como proyectos ejemplares centrados en algún aspecto concreto de la conservación de los humedales, actividades que promuevan la cooperación y convocatoria de reuniones técnicas supervisadas por un Comité Científico. Pero todo ello dependía de que en el futuro se consiguieran fondos para el Proyecto.

A continuación, el Copresidente abrió el turno de oradores.

La delegación de Noruega dijo que consideraba un honor que su país hubiera ocupado la Presidencia del Grupo de Trabajo y esperaba que se adoptaran los principios básicos de las recomendaciones y se demostrara que los esfuerzos del Grupo de Trabajo habían sido útiles.

El Director de Conservación, respondiendo a la delegación de Kenya, aclaró la metodología utilizada para seleccionar los casos estudiados, basados en los estudios de casos de uso racional realizados por la UICN y el WWF, que permitían un análisis transversal de los diferentes tipos de humedales y regiones en distintos contextos socioeconómicos, ecológicos y culturales.

El Director General de la UICN se preguntó por qué los Gobiernos no habían adoptado políticas nacionales de humedales y cómo podrían integrarse los elementos de una política o estrategia nacional de protección del medio ambiente con una política nacional de humedales. En respuesta, el Director de Conservación subrayó que el proceso de formulación de una política nacional de humedales era largo y complicado. El Presidente del Grupo de Trabajo sobre el Uso Racional de los Humedales se refirió a las limitaciones políticas y nacionales a que estaba sometido el proceso de formulación de políticas. La delegación de Uganda puso de relieve las ventajas de la formulación de políticas nacionales de humedales, que se centraban expresamente en los humedales, frente a las políticas nacionales de protección del medio ambiente, en las que los humedales sólo recibían una atención limitada.

El Director de Conservación, respondiendo a la delegación del Pakistán, destacó que las políticas nacionales de humedales podían armonizar todos los intereses en juego, por ejemplo, los de la población local, los contratistas, los cazadores, los amantes de la naturaleza y los científicos.

La delegación de Irlanda comentó que las limitaciones de recursos financieros y humanos habían impedido que se formularan en su país una política nacional de humedales, pero el buen manejo de sus sitios hacía innecesaria esa política. Sin embargo, las autoridades irlandesas no descartaban la posibilidad de formular tal política en el futuro.

La delegación de Australia apoyó el comentario del Director General de la UICN y subrayó la necesidad de un manejo aguas arriba. La delegación de Suecia insistió en la función importante que desempeñaban los análisis de impacto ambiental de los proyectos para establecer qué amenazas suponían para los humedales en términos de contaminación o de elementos de carácter más físico. En respuesta, el Director de Conservación puso de relieve que era importante

que los análisis de impacto ambiental se realizaran tanto aguas arriba como aguas abajo del humedal, con un enfoque global de la cuenca, y recomendó que se realizaran análisis adaptados específicamente a las características concretas de cada humedal.

La delegación de Francia expuso que el empeño político a favor de un mejor manejo de los humedales necesita un enfoque nacional, incluyendo acciones técnicas (inventarios y estudios), reglamentarias, fiscales y de sensibilización de todas las actividades. La delegación insistió sobre varios puntos, como la necesidad de dar un realidad jurídica al concepto de cuenca de captación dentro del marco de una política y de una reglamentación de las aguas; asegurar al más alto nivel gubernamental la coherencia indispensable de las políticas ambientales, de la distribución territorial y de la agricultura que deben ser objeto de evaluaciones; y finalmente evocó el esfuerzo realizado en este campo a nivel de los componentes de la nueva política agrícola.

Por último, el delegado del Canadá concluyó diciendo que, a pesar del largo proceso de consultas necesario para establecer una política de humedales, las ventajas que ofrecía el hecho de que se centrara expresamente en los humedales eran numerosas.

A continuación se produjeron varias intervenciones técnicas breves sobre estudios de casos de uso racional en Alemania: el Sr. Rutschke, de la Universidad de Potsdam, se refirió al uso racional en algunos sitios Ramsar alemanes [Anexo 4], y el Dr. J. Mooij, del Instituto Central de Investigación de Aves Acuáticas y Protección de Humedales, se refirió al uso racional de las poblaciones de aves acuáticas, haciendo especial referencia al ánsar careto grande *Anser albifrons* y al ánsar campestre *Anser fabalis* del Paleártico Occidental [Anexo 5].

Siguieron varias intervenciones técnicas relativas a las directrices complementarias para aplicar el concepto de uso racional. En primer lugar, el Sr. Cyril de Klemm, Asesor Jurídico de la Oficina, se refirió a los requisitos administrativos y jurídicos. Con excesiva frecuencia se consideraba que las leyes sólo establecían prohibiciones y sanciones, pero debían hacer mucho más. Un primer paso era identificar y suprimir las disposiciones legales que fomentaban la destrucción de humedales y eliminar los obstáculos para el manejo de los humedales como unidades ecológicas derivados de su división territorial o funcional entre distintas jurisdicciones. La zona costera era un ejemplo, ya que los organismos que tenían jurisdicción sobre la tierra y el mar eran distintos, lo que hacía imposible establecer áreas protegidas que se extendieran a ambos lados del límite de la pleamar. Otro elemento importante que debía tenerse en cuenta era la identificación y regulación de actividades potencialmente perjudiciales para los humedales, nuevo concepto que aparecía en la reciente Convención sobre la Diversidad Biológica. Se subrayó la importancia de que las valoraciones del impacto ambiental se adaptaran a las características específicas de los humedales. Era fundamental combinar la protección de las áreas con los procedimientos de manejo, y ofrecer incentivos adecuados a los propietarios o detentadores de tierras. También era preciso establecer mecanismos y procedimientos para resolver los

conflictos entre usuarios. La legislación debía ser imaginativa. La elaboración de un manual sobre la gama de instrumentos legales vigentes en todo el mundo podía ayudar a las Partes en la elaboración de nuevas leyes más adecuadas. La reunión de un pequeño grupo de expertos legales podía ser útil para identificar los instrumentos jurídicos que habían demostrado su efectividad y podían ser puestos como ejemplo.

Prosiguió a continuación el debate de las ponencias presentadas en la sesión de la mañana. El Copresidente instó también al Taller a que examinara las recomendaciones provisionales, el futuro mandato del Grupo de Trabajo sobre el Uso Racional de los Humedales, la aplicación del concepto de uso racional y los requisitos de las nuevas orientaciones para las directrices.

La delegación de Panamá insistió en la necesidad de que se promovieran determinadas medidas en el marco de las políticas nacionales de humedales.

El observador de Tanzania señaló que una política nacional ambiental podía ser tan adecuada como una política nacional de humedales.

La delegación de Islandia comentó que la poca información que ofrecían los informes nacionales sobre políticas nacionales de humedales no suponía necesariamente que los países no estuvieran interesados en integrar una política de humedales en la política global de conservación. La delegación de Francia apoyó esta observación.

La delegación de Argelia destacó el estímulo que la Conferencia de Montreux había representado para la promulgación de una ley de valoración del impacto ambiental en su país y subrayó la escasez de datos y la carencia de recursos financieros disponibles para la conservación de humedales en los países en desarrollo.

La delegación de Chile subrayó la necesidad de tener en cuenta, en las políticas nacionales de humedales, el uso y conservación de los recursos hidráulicos y la necesidad de jerarquizar las prioridades en esas políticas.

La delegación de Sudáfrica puso de relieve la necesidad de redefinir las políticas de demarcación a fin de respetar las divisorias de la cuencas, más que el curso de los ríos, y garantizar así la mejor conservación de los sitios.

El observador del WWF se refirió a las lecciones que podían obtenerse de las personas que vivían realmente en los humedales y a la oferta de incentivos financieros a la población local aguas arriba y abajo de los humedales.

La sesión de la tarde, presidida por el Copresidente (de la delegación de los Países Bajos) fue abierta con la intervención del Sr. T. Dahl, del Servicio de Pesca y Fauna Silvestre, EE.UU, sobre la necesidad de inventarios, investigación y monitoreo para lograr un uso racional de los humedales [Anexo 6]. Destacó algunos principios básicos comunes a estas actividades y en qué forma podían contribuir a aquel fin. Los inventarios, la investigación y las actividades de monitoreo debían ser fuente de información. Concluyó haciendo

tres observaciones cruciales. En primer lugar, las tres actividades tenían que estar relacionadas entre sí y vinculadas a los demás elementos incluidos en las Directrices de Uso Racional. En segundo lugar, debía promoverse un enfoque intersectorial. Por último, el personal, los recursos financieros, la tecnología y la política eran factores que también determinaban el éxito del concepto de uso racional.

El Dr. A. Gosh, del Zoological Survey de la India, presentó un ejemplo de tratamiento de aguas residuales en Calcuta.

El Sr. S. Sylla, del Ministerio de Medio Ambiente y Conservación de la Naturaleza del Senegal, se refirió a la formación y capacitación, señalando que era necesario tener en cuenta las necesidades de la población local al aplicar el concepto de uso racional y prestar atención a cuatro aspectos de la capacitación: definir las necesidades, apreciar la diferencia de necesidades, dirigirse a una audiencia determinada y la formación en sí misma. Habían de tenerse en cuenta tres tipos de capacitación: cursos de manejo integrado, técnicas de manejo de humedales y cursos para personal de campo.

El Sr. G. Castro, de Humedales para las Américas, se refirió al manejo de sitios. Las principales conclusiones eran que el manejo debía hacerse a la escala adecuada, tener un objetivo preciso y estar integrado en las políticas nacionales.

Las delegaciones de Eslovaquia, el Pakistán y los Estados Unidos de América deliberaron sobre el sentido exacto del término "monitoreo".

El observador del WWF puso de relieve la importancia de que el monitoreo se extendiera al nivel de captación de aguas para impedir el despilfarro de dinero resultante del manejo no racional de humedales, y la necesidad de tener en cuenta los aspectos ecológicos, en los países en desarrollo en particular.

La delegación de Ghana, dado que su país tenía una política general de protección del medio ambiente, puso en duda que fuera necesario disponer de una política nacional de humedales y se refirió además a la falta de recursos financieros para formular y aplicar esa política.

El observador de la UICN subrayó la diferencia clara entre la importancia económica y la ecológica de los humedales.

La delegación de Sudáfrica propuso que los científicos sociales ??estuvieran más involucrados en el proceso de investigación sobre humedales y planificación política.

La delegación del Japón recalcó que era preciso adaptar el contenido de las políticas de humedales a las características específicas de cada país. Solicitó una revisión de las referencias a las evaluaciones del impacto ambiental que contenía la recomendación provisional, la cual debería ser más explicativa.

Varias delegaciones y un observador se refirieron a la recomendación provisional REC. 5.6 sobre "Uso Racional de Humedales", y su anexo sobre directrices adicionales para la aplicación del concepto de uso racional.

La delegación del Canadá comentó que no era preciso que las políticas nacionales de humedales se basaran necesariamente en prescripciones legislativas.

Se produjo a continuación un debate sobre la modificación de la redacción de las recomendaciones provisionales.

En las actas finales de la Conferencia se recogerá el texto completo de las presentaciones técnicas [véanse los Anexos 1 a 6].

SUMMARY OF COMMENTS IN NATIONAL REPORTS:
GUIDELINES FOR THE ESTABLISHMENT OF NATIONAL WETLAND POLICIES

presented by M. Smart, Ramsar Convention Bureau

Document C.5.16 ('Review of national reports submitted by the Contracting Parties and Review of the implementation of the Convention since Montreux') summarizes information contained in the 38 national reports which had been received by the Bureau by April 1993, and reviews implementation since Montreux on the basis of data available to the Bureau. In this document, paragraphs 327-387 present comments from section 3.2 of the national reports under which Contracting Parties were requested to comment on 'Progress towards establishment of national wetland policies as outlined in the 'Guidelines for the implementation of the wise use concept' of the Convention approved by Montreux Recommendation C.4.10'.

The 'Guidelines for the implementation of the wise use concept' adopted at Montreux suggest that the most effective way to approach implementation of the concept is to develop and carry out national wetland policies based on: improvement of institutional and organizational arrangements; review of legislation and government policies; increasing knowledge and awareness of wetlands and their values; review of the status of all wetlands in a national context; and action at individual wetlands. Such policies could be developed in the context of National Conservation Strategies or National Environment Action Plans.

Several national reports present broad wetland policy issues in considerable detail, among them Bulgaria, Canada, Denmark, France, Japan, Netherlands, New Zealand, Norway, UK and USA. However it appears that rather few Contracting Parties have adopted national wetland policies in the sense of the Montreux Guidelines; indeed only Canada and Uganda formally state that they have done so, though Belgium, Denmark, Netherlands, New Zealand, South Africa, UK and USA give details of actions which go a long way towards establishment of national wetland policies. These actions often emphasize the biodiversity aspects of conservation and wise use of wetlands. Furthermore some national reports (in particular those from Bolivia, Bulgaria, Costa Rica, Czech Republic, Guatemala, Hungary, Peru, Poland and Romania) indicate that the countries concerned would be interested in developing national wetland policies.

ACTIVITIES OF THE WISE USE WORKING GROUP

prepared by S. Eldoy, International Coordinator,
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Abstract: The traditional nature conservation-oriented focus of the Ramsar Convention was not sufficient for gaining general support for wetland conservation, especially in many countries of the south. This led to the establishment of the Criteria and Wise Use Working Group. The Working Group proposed a new set of Criteria, allowing for socio-economic values to be considered in the evaluation of the importance of wetlands for listing on the Ramsar List, and 'Guidelines for implementation of the wise use concept of the Convention'. Since the Montreux Conference in 1990 both site specific and regional case studies from different parts of the world, as well as examples of processes of developing national wetland policies, have been considered under the Wise Use Project. The Working Group has concluded that these case studies are good examples of different approaches towards wise use. However, it is dangerous to take any of them as models for wise use to be adopted elsewhere, on other sites or under other circumstances. One of the outputs aimed for under the Wise Use Project, is an Action Plan for implementing the Wise Use Guidelines of the Convention. The Action Plan is expected to include activities such as pilot projects demonstrating wise use on the ground, studies to increase basic knowledge, technical meetings and institutional cooperation.

Introduction

The concept of 'wise use of wetlands' was introduced into Article 3.1 of the text of the Ramsar Convention when it was drafted back in 1971, stipulating that 'The Contracting Parties shall formulate and implement their planning so as to promote... as far as possible the wise use of wetlands in their territory'. This was done at a time long before the idea of sustainable development was born, when the general focus of nature conservation was directed more towards strict protection or preservation. It may seem as if the drafters of the Convention were well before their time when including the wise use concept in the text of the Convention.

During the first years of the history of the Convention the wise use concept remained more or less resting in the text of the Convention as a general and somewhat mysterious idea, without very much attention. The main efforts were directed towards the conservation of internationally important wetlands especially for waterfowl, through the establishment of the Ramsar List, and the observation of the listed sites.

Recommendations mentioning 'wise use' were adopted both at the first and second Conferences of the Parties, held in Cagliari in Italy in 1980 and

Groningen in the Netherlands in 1984 respectively. However, none of these recommendations gave any specific indication of how to interpret and implement the concept.

At the Third Conference of Parties in Regina, Canada, in 1987 a workshop on wise use of wetlands was organized, which led to the adoption of a definition of 'wise use' as follows:

'The wise use of wetlands is their sustainable utilization for the benefit of humankind in a way compatible with the maintenance of the natural properties of the ecosystem'.

Sustainable utilization is defined as 'human use of a wetland so that it may yield the greatest continuous benefits to present generations while maintaining its potential to meet the needs and aspirations of future generations'.

Natural properties of the ecosystem are defined as 'those physical, biological or chemical components, such as soil, water, plants, animals and nutrients, and the interactions between them'.

The Regina Conference also adopted a first set of guidelines for wise use, listing a few elements and actions considered as part of a wise use approach.

The Regina Conference can be considered as a turning point for the Convention, by increasing the attention on human needs within the Convention. Discussions during the Regina Conference clearly demonstrated that traditional nature conservation, and to a large extent the bird-oriented focus of the Convention, was not sufficient for gaining general support for wetland conservation, especially so in many developing countries. The need to acknowledge socio-economic values of wetlands was stressed by a number of representatives at that meeting.

Establishment of the First Wise Use Working Group

It was, primarily, discussions on socio-economic values of wetlands in relation to the Criteria for Identifying Wetlands of International Importance at the Regina Conference, which led to the establishment of the first wise use working group - at that time as a combined Criteria and Wise Use Working Group.

Recommendation 3.1 adopted by the Regina Conference called for the establishment of a working group in order to examine the ways in which the Criteria and Guidelines for Identifying Wetlands of International Importance might be elaborated, and the wise use provisions of the Convention applied, in order to improve the worldwide application of the Convention.

The Standing Committee of the Convention agreed on a composition of the Working Group with one country representing each of the seven Ramsar Regions: Norway, Poland, Mauritania, Iran, Australia, Chile and the United States. The Working Group and some additionally-invited experts and observers met once in

San José, Costa Rica in January 1988 in conjunction with IUCN's General Assembly. Under the chairmanship of Norway it produced its report containing proposals for revised Criteria for Identifying Wetlands of International Importance, and also new Guidelines for implementation of the wise use concept of the Convention.

The report of the World Commission on Environment and Development was published just a few months before the Working Group met in Costa Rica, and the Working Group also had a draft of IUCN's report 'Wetland Conservation and Sustainable Development' at its disposal. These two documents reinforced the wise use provisions of the Ramsar Convention, and both provided useful guidance in developing the guidelines for wise use. The report of the World Commission on Environment and Development (the Brundtland Commission Report) in particular, gave strong political support for developing and strengthening the wise use concept of the Convention.

The Wise Use Guidelines

The Montreux Conference adopted the 'Guidelines for implementation of the wise use concept' of the Convention as proposed by the Working Group, and also a new set of criteria, allowing for socio-economic values to be considered in the evaluation of the importance of wetlands for listing on the Ramsar List. These decisions both strongly confirmed that the human and socio-economic aspects of wetland conservation must be an important part of the scope of the Convention. This was of particular importance to many developing countries, where wetlands more often than in industrialized countries will be of crucial importance for human well-being and quality of life.

It is recognized in the introduction to the Guidelines that the wise use provisions of the Convention apply to all wetlands and their support systems within the territory of a Contracting Party, both those wetlands designated for the Ramsar List, and all other wetlands. The Guidelines focus both on the formulation and implementation of national wetland policies, and wise use of particular wetlands. Establishment of comprehensive national wetland policies should be the long term goal, but it is recognized that priority actions at national level as well as priority actions at particular wetland sites are needed during the period when a wetland policy is being developed.

The national wetland policies should as far as possible address all problems and activities related to wetlands within a national context, and these are listed under five main headings in the guidelines:

1. Actions to improve institutional and organizational arrangements;
2. Actions to address legislation and government policies;
3. Actions to increase knowledge and awareness of wetlands and their values;
4. Actions to review the status of, and identify priorities for, all wetlands in a national context;
5. Actions to address problems at particular wetland sites.

Follow Up after the Montreux Conference

The Montreux Conference recommended the Wise Use Working Group to be reconstituted, and to continue the wise use work of the Convention. The following tasks were given to the Working Group:

(a) overseeing the work of the Ramsar Bureau in implementing a wise use project financed by the Netherlands;

(b) fostering further development and refinement of the 'Guidelines for implementation of the wise use concept', to apply to a diversity of wetland types, regions, resources and uses, concerning such areas as:

- organizational and institutional processes;
- inventory and classifications;
- development of management plans, policies, and alternative conservation strategies;
- environmental education and outreach programmes;
- effective training programmes;
- ongoing monitoring and research programmes; and
- available partnerships for further assistance;

(c) disseminating examples of site-specific wise use from regions throughout the world;

(d) disseminating examples of the interrelation between human activities and wetlands; and

(e) providing information about the process of developing national wetland inventories and policies.

The Wise Use Working Group was reconstituted by the Standing Committee as recommended by the Conference of the Parties. Only minor changes were made in the representation from the seven Ramsar Regions, and the new composition of the group was Norway (still providing chairmanship). Hungary, Mauritania, Jordan, Australia, Chile and the United States. This reconstituted Wise Use Working Group and a group of specially invited technical experts have met on three occasions. First in Perth, Australia, during the IUCN General Assembly there in November 1990, secondly in The Hague, Netherlands, in October 1992. The last meeting was held in conjunction with a more comprehensive Wise Use Seminar organized under the Netherlands Wise Use Project, where more than 50 people from all over the world participated.

The Wise Use Project financed by the Netherlands has been of major importance for the work of the Wise Use Working Group in gathering information on practical examples of wise use. The Group decided already during its first meeting in Perth to conduct its work largely by considering selected case studies. The case studies included represent both examples of efforts to achieve wise use at an international level (cooperative actions between several countries), at national or regional level (illustrating development

of national or sub-national wetland policies) and at local level (illustrating site-specific examples of wise use attempts). A list of the case studies considered is given in Table 1.

The Working Group has so far concluded that the 'Guidelines for implementation of the wise use concept', as adopted by the Montreux Conference provide a sufficient framework for promoting the wise use concept of the Convention, and that the Guidelines themselves should remain unchanged.

The Working Group is, however, with reference to the decision taken by the Montreux Conference expected to provide further guidance on application of the Guidelines. In that respect the Working Group does feel that the application of the Guidelines must be based on certain fundamental principles, such as the concept of sustainability, a 'catchment-wide approach' and the precautionary principle.

The case studies referred to above will provide additional guidance on different approaches or methods chosen in attempting to obtain wise use. It is, however, also clear that the case studies do reflect different ecological, socio-economic and political situations, and should therefore not be taken as model examples of wise use. What might be wise use under certain circumstances or in a particular wetland, will not necessarily be wise use in other situations or in other areas.

It is furthermore important to note that non-exploitative forms of use, including strict protection, may in some cases be the wisest or only wise use of a particular wetland. This may be the case for particularly sensitive areas, or where any utilization or disturbance on the site itself may lead to reduction in the benefits it provides outside the site itself.

In addition to the guidance provided by the case studies, the Working Group does feel that further guidance on different aspects of wise use is needed in addition to the already adopted Guidelines, and has identified several issues for which elaboration of additional guidance could be useful, such as:

- support for local initiatives and local participation;
- traditional uses and public awareness;
- training programmes;
- legislation and legal requirements;
- environmental impact assessments and environmental economics;
- cross-sectoral coordination; and
- international cooperation.

The additional guidance on issues such as these may take different forms, including companion documentation to the Guidelines or resolutions adopted by Conferences of the Parties. Further preparatory work has to be done before the Kushiro Conference, and also afterwards, in order to develop the additional guidance. It will probably be too ambitious to elaborate substantive guidance on all of these issues within the few months left before the Kushiro Conference, but it will hopefully be possible to give more detailed guidance and advice on some of the issues listed above.

An Action Plan for Wise Use

One major task included in the Wise Use Project financed by the Netherlands, is the development of an Action Plan for Wise Use, meant to assist the Dutch Government in identifying actions which would qualify for funding. The Working Group has felt that implementation of the Action Plan should be an important priority for the Convention as a whole in the near future, and not only an Action Plan meant for consideration by the Dutch Government. Work still needs to be done in order to finalize the Action Plan before the Kushiro Conference next year, and so far the Working Group has only identified the main themes to be considered for inclusion in the Action Plan. These are:

(a) Promotion of pilot projects which can demonstrate wise use on the ground, in order to increase knowledge, promote awareness, and gain support for wise use at different levels;

(b) Studies which should be carried out in order to provide or increase basic knowledge on issues such as:

- the value of wetlands (using economic as well as ecological parameters);
- 'sustainability' (limits for development/use); and
- project appraisal (guidance for the development and evaluation of wetland projects);

(c) Technical meetings for discussing issues both on specific themes and on regional concerns;

(d) Institutional cooperation which can promote wise use, through encouraging partner organizations, regional cooperative bodies and other involved institutions to observe wise use of wetlands in their activities.

Concluding Remarks

Substantial progress has been made over the last years in developing and promoting the wise use concept of the Ramsar Convention. From being an inactive and resting idea in the text of the Convention, Wise Use is now one of the key issues.

The report of the World Commission on Environment and Development, and not at least the decisions taken by the Rio Conference, have placed sustainable development high up on the political agenda, both internationally and nationally. Giving high priority to implementation of the wise use concept will therefore most certainly be a reasonable strategy for further strengthening the Ramsar Convention, and for giving more political weight both to the Convention and to wetland conservation in general.

It will not be easy, if at all possible, to give the complete and final answer to what wise use might be. As already mentioned earlier, wise use of one particular wetland may not necessarily be wise use of another wetland. Changes over time may also change wise use to unwise use or vice versa.

Furthermore, a particular use may be a wise use if it is a small scale use, but may become unwise if it is intensified and becomes large scale. When describing or guiding on wise use it is therefore more a question of focusing on the way of thinking, planning, organizing, verifying and adjusting, than to specify and advice on actual use itself. Wise use needs to be a continuous process. It has become, and it should remain among the top priorities for the Ramsar Convention in the years to come.

Table 1

List of wise use case studies

Case studies at international level:

- Integrated Management of Coastal Wetlands of the Mediterranean Type (MedWet)
- Wise Use of the Wadden Sea (Denmark, Germany, and the Netherlands)

Case studies at national or sub-national level:

- Canada, an example of a national wetland policy
- Uganda, National Wetland Programme
- Coastal wetland planning and management in Guinea-Bissau

Local or site-specific case studies:

- The Chowilla Floodplain Resource Management Plan (Australia)
- Traditional land-use and integration of small scale intervention in the floodplain of the Logone, Chad
- Improving the sustainable use of mangrove resources in the Terraba-Sierpe Mangrove Forest Reserve, Costa Rica
- Wise use of the marshes of Cotentin and Bessin, France
- Restoration of the Hortobagy National Park's water meadows, Hungary
- Caloutta Wetlands, towards a sustainable development, India
- The wise use of mangroves in the Indus Delta; Koragi Creek Project, Pakistan
- Wise use and restoration of mangroves and marine resources in the Visayas Central Region Project, Philippines
- Wildlife resource utilization, Laguna El Jocotal, El Salvador
- Wetland drainage and restoration potential in the Lake Thompson watershed, South Dakota, USA
- Mangrove plantation and wetland restoration in the Mekong Delta, Vietnam
- The Kafue Flats, Zambia.

CONCLUSIONS OF THE WISE USE PROJECT

presented by H. Lethier, Ramsar Convention Bureau

Introduction

At the Fourth Meeting of the Conference of the Contracting Parties, held in June 1990 in Montreux, Switzerland, the Government of the Netherlands announced its intention of providing the Ramsar Bureau with financial support for carrying out a project aimed at promoting the application of the concept of wise use of wetlands, in particular in developing countries (see Recommendation 4.10). The project has been coordinated by the Ramsar Bureau and carried out in conjunction with the Working Group on Wise Use, with the cooperation of a large number of experts.

The first part of the present paper summarizes the aims and objectives of the project, while the second draws the general conclusions of the project and reviews the principal stages in its execution.

I Aims and objectives of the project

I-1 Aims

As provided in the agreement between the Government of the Netherlands and the Ramsar Bureau, the aims of the three-year project were to support and enhance efforts to promote and develop the application of the concept of wise use of wetlands, particularly in developing countries, based on analysis of a series of case studies which represented original approaches to the management of wetlands and their resources. The project was to be made up of five to six case studies from developing countries in West Africa, East Africa, Southern Asia, Southeast Asia, Southwest Asia, Central America and South America, and of one or two case studies from developed countries, including the Wadden Sea and North America.

The work was to be coordinated by the Ramsar Bureau, with the assistance of its partner organizations, and with the participation of local experts, and as appropriate expatriate experts, who were involved in the case studies. The 'Guidelines for implementation of the wise use concept', adopted at Montreux, were to serve as a basis for the analysis.

I-2 Objectives

The project was to publish an 'Action Plan' with two objectives:

- to establish additional guidance for the implementation of the wise use concept; and
- to review the case studies.

Priority for action in the field in a number of developing countries were also to be identified. These were to be related both to management of particular sites and to measures for the establishment of national wetland policies.

II Operation of the project and general conclusions

II-1 Operation of the project

Principal phases:

The project has been carried out in accordance with the calendar approved by the Working Group on Wise Use at its meeting (in which external experts also took part) in Perth, Australia on 27 November 1990 during the IUCN General Assembly. The meeting examined a preliminary list of case studies.

A project coordinator was recruited by the Ramsar Bureau as from 1 January 1991.

A first meeting for preliminary review of the case studies was held in The Hague, Netherlands, from 1-3 October 1991, with the participation of 21 experts from 14 countries.

A larger Expert Conference was held from 8-10 September 1992 at Texel, Netherlands, during which the case studies were presented by their authors. About 60 specialists from 38 countries (22 of them developing countries) took part in this conference. On the second day, four regional workshops were held (for Africa; North America & Europe; Asia & Oceania; and the Neotropical Region) to identify, in the light of the preliminary information provided by the case studies, the types of action which appeared to be a priority in order to promote wise use of wetlands in the future.

Finally, a small expert group met in Washington on 23-24 February 1993 to produce a draft on additional guidance for the implementation of the wise use concept, on the basis of the conclusions of the Texel conference.

Progress of the project:

At present the editing of the texts of the case studies is complete. The number of case studies to be included in the final report, augmented by the results of three other studies submitted subsequently to the Bureau, is twice the size of what was envisaged in the initial project.

This large increase has been made possible by the cooperation of other states and international organizations. A draft on 'Additional guidance for the implementation of the wise use concept' has been prepared and will be discussed during the present workshop, before being submitted for adoption in plenary session. The final report of the project, incorporating the case studies and the additional guidance will therefore be published as soon as the definitive version of the additional guidance has been adopted, immediately after the Fifth Meeting of the Conference of the Contracting Parties.

Furthermore, the Ramsar Bureau contacted its partner organizations in the first part of 1993 to identify priority wise use activities in the categories defined at Texel:

- pilot projects demonstrating wise use in the field;
- studies to increase knowledge on: wetland values; the 'sustainability' and limits of development; the carrying capacity of wetlands; and reviews of projects relating to wetlands;
- regional technical meetings on specific subjects; and
- activities to promote cooperation between organizations.

These contacts will be continued in the coming weeks in cooperation with the authorities of the countries concerned, in order to prepare detailed projects for submission to interested development agencies, and in particular the Government of the Netherlands.

II-2 Conclusions of the project

The Annex to draft recommendation REC. 5.6 [Annex to Resolution RES. C.5.6, page 171, Vol. I of the Proceedings], entitled 'Additional guidance for the implementation of the wise use concept', gives details of the measures which appear necessary in order to achieve effective wise use of wetlands. This guidance in fact reflects the lessons drawn from the case studies and which can be summarized as follows:

- social and economic factors can lead to the destruction of wetlands and must therefore be an essential element in programmes for wise use of wetlands;
- local people who benefit from wetlands must be associated at all stages of the management process; this also goes for all government departments and other organizations involved, even indirectly, in land use and natural resource planning;
- experience obtained from projects at specific sites may reveal more general problems, especially as regards the improvement of institutions;
- wetlands are affected by activities and uses outside their own borders; management must take account of these influences and must cater for problems which arise within the whole coastal zone or catchment where they occur;
- the precautionary principle should be applied in the field of wetland conservation, and permission for any activity should only be given after it has been confirmed that it will have no negative effect on the wetland(s) concerned.

General conclusions

The present project marks an important stage of a long process towards the wise use of wetlands.

While it has provided rich sources of information, it is a modest step on the long road to sustainable development.

The case studies which it has brought together show what can be done to near this final goal, in differing ecological and socio-economic contexts.

However, these case studies are not recipes which can be reproduced at will and applied in any circumstances. They are simply examples, for which in most cases the final results are still awaited, taking varied routes to the final goal - to promote wise use of wetlands and their resources - with the same long term aim - to associate the maintenance of natural equilibrium with the welfare of local people.

CONCLUSIONS DU PROJET UTILISATION RATIONNELLE

présentées par H. Lethier, Bureau de la Convention de Ramsar

Introduction

Lors de la quatrième session de la Conférence des Parties contractantes réunie en juin 1990 à Montreux, Suisse, le Gouvernement des Pays-Bas avait annoncé son intention d'apporter un appui financier au Bureau de la Convention pour la réalisation d'un projet destiné à encourager l'application du concept d'utilisation rationnelle des zones humides en particulier dans les pays en voie de développement (cf Rec. C.4.10 Rév.).

Ce projet coordonné par le Bureau Ramsar a été réalisé en liaison avec le groupe de travail sur l'utilisation rationnelle et en coopération avec un grand nombre d'experts.

Après avoir résumé quels en étaient les buts et l'objectif (partie 1), la présente note tire les conclusions générales de ce projet et rappelle les étapes essentielles de son déroulement (partie 2).

I Buts et objectif du projet:

I-1 Buts

Conformément à l'accord passé entre le Gouvernement des Pays-Bas et le Bureau Ramsar, ce projet d'une durée de 3 ans avait pour buts de promouvoir et de développer les efforts entrepris en faveur d'une application du concept d'utilisation rationnelle des zones humides, en particulier dans les pays en voie de développement, à partir de l'analyse d'une série d'études de cas constituant des approches originales de la gestion des zones humides et de leurs ressources.

Il devait comporter l'évaluation de 5-6 études de cas relatives à des pays en voie de développement des régions d'Afrique de l'Ouest, d'Afrique de l'Est, d'Asie du Sud, d'Asie du Sud-Est, d'Asie du Sud-Ouest, d'Amérique centrale et d'Amérique du Sud, et de 1-2 études de cas provenant de pays développés, ceux de la mer des Wadden et d'Amérique du Nord.

Devaient participer à ce travail placé sous la coordination du Bureau Ramsar assisté par ses organisations partenaires, les experts locaux impliqués dans les études de cas ainsi que, en tant que de besoin, des experts étrangers.

Les lignes directrices sur l'application du concept d'utilisation rationnelle des zones humides adoptées à Montreux serviraient de référence à cette analyse.

I-2 Objectif

Le projet devait aboutir à la publication d'un "Plan d'Action" comportant un double objectif:

- établir des orientations pour l'application du concept d'utilisation rationnelle des zones humides,
- fournir les rapports d'évaluation des études de cas.

Des priorités d'actions de terrain seraient également identifiées dans une sélection de pays en voie de développement; ces priorités porteraient à la fois sur des activités de gestion à mener sur des zones humides particulières et sur des initiatives en faveur de politiques nationales de conservation.

II Déroulement du projet et conclusions générales

II-1 Déroulement du projet

Phases principales:

Le projet s'est déroulé conformément au calendrier approuvé par le groupe de travail sur l'utilisation rationnelle lors d'une réunion élargie à des experts extérieurs et organisée à Perth, Australie, le 27 novembre 1990, à l'occasion de l'assemblée générale de l'UICN; une liste indicative des études de cas à inclure au projet a été examinée au cours de cette même réunion.

Un coordonnateur du projet a été recruté par le Bureau Ramsar à compter du 1er janvier 1991.

Une première réunion d'évaluation intermédiaire des études de cas s'est tenue à La Haye, Pays-Bas, les 1er, 2 et 3 octobre 1991; 21 experts provenant de 14 pays ont participé à cette rencontre.

Une Conférence d'experts plus importante s'est également tenue les 8, 9 et 10 septembre 1992 à Texel, Pays-Bas, à l'occasion de laquelle les études de cas ont fait l'objet d'une présentation par leurs auteurs.

Cette rencontre a rassemblé une soixantaine de spécialistes venant de 38 pays différents dont 22 en voie de développement; au cours de la seconde journée, les experts se sont répartis en quatre ateliers régionaux (Afrique, Amérique du Nord/Europe, Asie/Océanie, Néotropiques) pour identifier, à la lumière des informations provisoires fournies par les études de cas, les types d'actions qui leur paraissaient prioritaires de mener à l'avenir afin de promouvoir l'utilisation rationnelle des zones humides.

Enfin, un groupe de travail restreint s'est réuni à Washington, Etats-Unis, les 23 et 24 février 1993, pour élaborer selon les conclusions de la conférence de Texel des orientations complémentaires aux lignes directrices relative à l'application du concept d'utilisation rationnelle des zones humides.

Etat d'avancement du projet:

A ce jour, l'édition des études de cas est terminée.

Le nombre des études de cas incluses au rapport final enrichi par les résultats de trois autres études fournies au Bureau par la suite (cf liste des études annexe 3) est le double de celui prévu dans le projet initial.

Cet apport considérable a été rendu possible grâce à la coopération d'autres Etats et organisations internationales.

Un projet d'orientations complémentaires aux lignes directrices a été établi; ces orientations complémentaires seront présentées et discutées au cours de l'atelier et soumises à adoption en séance plénière.

Le rapport final du projet comportant l'évaluation des études de cas et les orientations complémentaires sera donc publié au lendemain de la Cinquième Conférence des Parties contractantes, dès l'adoption de ces orientations dans leur version définitive.

Enfin, des consultations ont été engagées par le Bureau Ramsar auprès de ses partenaires au cours du premier semestre 1993, pour identifier des projets d'actions prioritaires d'utilisation rationnelle dans les catégories définies lors de la Conférence de Texel, à savoir:

- projets pilotes de démonstration d'utilisation rationnelle sur le terrain,
- études destinées à améliorer les connaissances notamment sur les valeurs des zones humides, la "durabilité" et les limites du développement, la capacité d'accueil de ces zones, et l'évaluation des projets concernant les zones humides,
- réunions techniques régionales sur des sujets particuliers,
- actions en faveur de la coopération entre les organismes.

Ces consultations seront poursuivies au cours des prochaines semaines en liaison avec les autorités des pays concernés, pour aboutir à l'élaboration de projets détaillés à soumettre aux agences de développement susceptibles d'être intéressées, notamment

le
Gouvernem
ent des
Pays-Bas.

II-2 Conclusions du projet

On se réfèrera à l'annexe au projet de recommandation REC. 5.6 de la présente session [voir Annexe à la Résolution RES. C.5.6, page 187, Vol. I des procès-verbaux], intitulée "Orientations complémentaires pour l'application du concept d'utilisation rationnelle", pour connaître plus en détail les mesures qui paraissent devoir être encouragées afin d'aboutir à une utilisation rationnelle effective des zones humides.

Ces orientations reflètent en réalité les leçons tirées des études de cas du projet et que l'on peut résumer ainsi:

- les facteurs sociaux et économiques peuvent entraîner la destruction des zones humides et doivent pour cela être un élément central des programmes d'utilisation rationnelle des zones humides,
- les populations locales qui tirent avantage de l'utilisation de ces zones doivent être associées à tous les stades de la gestion; il en est de même de tous les organismes et services impliqués même indirectement dans la gestion de l'espace et des ressources naturelles,
- l'expérience acquise à l'occasion de projets menés sur des sites particuliers peut révéler utilement des besoins plus généraux, notamment d'amélioration du cadre institutionnel,
- les zones humides subissent les effets d'activités et d'usages extérieurs à leurs propres limites; leur gestion doit tenir compte de ces influences et intégrer les problèmes qui se posent au niveau de la zone côtière ou du bassin versant dont elles dépendent,
- le principe de précaution devrait s'appliquer dans le domaine de la conservation des zones humides et l'autorisation de toutes activités subordonnée à la vérification préalable que celles-ci n'aurent pas de conséquences néfastes sur la ou les zones humides considérées.

Conclusion générale

Le présent projet marque une étape importante d'un long processus vers l'utilisation rationnelle des zones humides.

Il est donc une étape très riche d'enseignements mais modeste dans la course au développement durable.

Les études de cas qu'il rassemble illustrent ce qui peut être tenté pour approcher cet objectif final, dans des situations écologiques et des contextes socio-économiques très différents les uns des autres.

Ces études ne sont cependant pas des recettes que l'on peut reproduire à l'envi et appliquer dans toutes circonstances; elles sont de simples exemples dont on attend encore dans la plupart des cas les résultats définitifs, empruntant des voies diverses à la recherche d'un même objectif, promouvoir une utilisation rationnelle des zones humides et de leurs ressources, et avec un même but à long terme, conjuguer le maintien des équilibres naturels au bien-être des populations.

CONCLUSIONES DEL PROYECTO DE USO RACIONAL

por H. Lethier, Oficina de la Convención de Ramsar

Introducción

En la cuarta reunión de la Conferencia de las Partes Contratantes, celebrada en Montreux, Suiza, en junio de 1990, el Gobierno de los Países Bajos anunció que tenía el propósito de dar apoyo financiero a la Oficina de Ramsar para ejecutar un proyecto encaminado a promover la aplicación del concepto de uso racional de los humedales, sobre todo en los países en desarrollo (véase la recomendación 4.10). El proyecto ha sido coordinado por la Oficina de Ramsar y se ha ejecutado en conjunción con el Grupo de Trabajo sobre Uso Racional y con la cooperación de un grupo más numeroso de expertos.

En la primera parte de este documento se resumen los propósitos y objetivos del proyecto, mientras que en la segunda se consignan las conclusiones generales del proyecto y se reseñan las principales etapas de su ejecución.

I Propósitos y objetivos del proyecto

I-1 Propósitos

Con arreglo a lo dispuesto en el acuerdo entre el Gobierno de los Países Bajos y la Oficina de Ramsar, los propósitos del proyecto trienal eran apoyar y reforzar los esfuerzos encaminados a promover y fomentar la aplicación del concepto de uso racional de los humedales, especialmente en los países en desarrollo, sobre la base del análisis de una serie de estudios de casos concretos basados en métodos originales de manejo de los humedales y de sus recursos. El proyecto debía constar de cinco o seis estudios de casos en países en desarrollo de Africa Occidental, Africa Oriental, Asia Meridional, América Central y América del Sur, y en uno o dos estudios de casos en países desarrollados, con inclusión del Mar de Wadden y de América del Norte.

La Oficina de Ramsar debía coordinar la labor con la asistencia de sus organizaciones asociadas y con la participación de expertos locales y, según fuera necesario, de expertos extranjeros que hubieran intervenido en los estudios de casos. El análisis debía basarse en las "Directrices para la implementación del concepto de uso racional" aprobadas en Montreux.

I-2 Objetivos

El proyecto preveía la publicación de un "Plan de Acción" para lograr dos objetivos, a saber:

- elaborar directrices adicionales para la aplicación del concepto de uso racional; y
- examinar los estudios de casos.

Además, se debían fijar prioridades para la acción sobre el terreno en diversos países en desarrollo. Las prioridades debían guardar relación tanto con el manejo de sitios determinados como con el establecimiento de políticas nacionales en materia de humedales.

II Ejecución del proyecto y conclusiones generales

II-1 Ejecución del proyecto

Etapas principales:

El proyecto se ha ejecutado en consonancia con el calendario aprobado por el Grupo de Trabajo sobre Uso Racional en la reunión que celebró en Perth, Australia el 27 de noviembre de 1990 con ocasión de la Asamblea General de la UICN (en la que participaron expertos externos) (véase el Anexo I). La reunión examinó una lista preliminar de estudios de casos.

La Oficina de Ramsar contrató a un coordinador del proyecto con efecto a contar del 1º de enero de 1991.

Una primera reunión para hacer un examen preliminar de los estudios de casos se celebró en La Haya, Países Bajos, del 1º al 3 de octubre de 1991, y en ella participaron 21 expertos de 14 países.

Una Conferencia de Expertos ampliada se celebró en Texel, Países Bajos, del 8 al 10 de septiembre de 1992, en la que los estudios de casos fueron presentados por sus autores. Cerca de 60 especialistas de 38 países (incluidos 22 países de desarrollo) participaron en la conferencia. El segundo día se celebraron cuatro talleres regionales (para Africa; América del Norte y Europa; Asia y Oceanía; y la Región Neotropical) a fin de determinar, a la vista de la información preliminar contenida en los estudios de casos, los tipos de medidas consideradas prioritarias para promover el uso racional de los humedales en el futuro (véase el informe de la reunión en el Anexo 2).

Por último, un pequeño grupo de expertos se reunió en Washington el 23 y el 24 de febrero de 1993 a fin de preparar un proyecto de directrices adicionales para la aplicación del concepto de uso racional sobre la base de las conclusiones de la conferencia de Texel.

Avances en la ejecución del proyecto:

Los textos de los estudios de casos se han acabado de redactar. El número de estudios de casos que habrán de incluirse en el informe final, al que se han añadido los resultados de otros tres estudios presentados a la Oficina más tarde (véase la lista de estudios de casos, Anexo 3) es dos veces mayor que el previsto en el proyecto inicial. Este aumento sustancial ha sido posible gracias a la cooperación de otros Estados y organizaciones internacionales. Se ha preparado un proyecto de "Directrices adicionales para la implementación del concepto de uso racional", que se examinará en este taller antes de que

sea sometido a la sesión plenaria para su adopción (véase el Anexo del documento Doc.C.5.7 Rev.1). El informe final del proyecto, incluidos los estudios de casos y las directrices adicionales, se publicará pues, tan pronto como se apruebe la versión definitiva de las directrices adicionales, inmediatamente después de la quinta reunión de la Conferencia de las Partes Contratantes.

Además, a comienzos de 1993 la Oficina de Ramsar se puso en contacto con sus organizaciones asociadas para tratar de determinar las actividades prioritarias en materia de uso racional de las categorías establecidas en Texel, a saber:

- proyectos piloto de demostración del uso racional sobre el terreno;
- estudios encaminados a promover la comprensión de: las funciones de los humedales; el carácter sustentable y los límites del desarrollo; la capacidad de sustentación de los humedales; y análisis de proyectos relacionados con los humedales.;
- reuniones regionales técnicas sobre temas específicos; y
- actividades encaminadas a promover la cooperación entre organizaciones.

Estos contactos proseguirán en las semanas venideras en cooperación con las autoridades de los países interesados a fin de preparar proyectos detallados que serán presentados a los organismos de desarrollo competentes y especialmente al Gobierno de los Países Bajos.

II-2 Conclusiones del proyecto

El Anexo del proyecto de recomendación REC. 5.6, titulado "Directrices adicionales para la implementación del concepto de uso racional" contiene información pormenorizada sobre las medidas que parece necesario adoptar para garantizar el uso racional de los humedales. En realidad, las directrices reflejan las conclusiones sacadas sobre la base de los estudios de casos, que pueden resumirse como sigue:

- los factores económicos y sociales que pueden provocar la destrucción de humedales, por lo que han de ser un aspecto clave de los programas de uso racional de los humedales;
- la población local que se beneficia de los humedales ha de participar en todas las etapas del proceso de manejo; ello se aplica igualmente a todas las dependencias gubernamentales, así como a las demás organizaciones que participen, aunque sea indirectamente, en el aprovechamiento del suelo y en la planificación relacionada con los recursos naturales;

- la experiencia adquirida en el marco de proyectos en sitios determinados puede poner en evidencia problemas de carácter más general, sobre todo en lo referente al fortalecimiento de las instituciones;
- los humedales se ven afectados por actividades y usos que tienen lugar fuera de sus límites; el manejo ha de tomar en cuenta esas influencias y ha de responder a los problemas que surgen en toda la zona costera o cuenca de captación donde tienen lugar;
- el principio de precaución debería aplicarse en la esfera de la conservación de los humedales y toda actividad sólo se debería autorizar una vez que se haya confirmado que no tendrá efectos adversos sobre el humedal o los humedales de que se trate.

Conclusiones generales

El presente proyecto constituye una etapa importante de un largo proceso de promoción del uso racional de los humedales.

Aunque ha proporcionado valiosas fuentes de información, sólo representa un pequeño paso en el largo camino hacia el desarrollo sustentable.

Los estudios de casos que ha reunido ponen de relieve lo que es posible hacer para avanzar hacia esa meta final en contextos ecológicos y socioeconómicos diferentes.

Con todo, los estudios de casos no constituyen recetas susceptibles de aplicarse a voluntad en cualquier circunstancia. Son meros ejemplos, cuyos resultados finales todavía se desconocen, de distintas vías seguidas para lograr la meta final, a saber, la promoción del uso racional de los humedales y de sus recursos, con el mismo propósito a más largo plazo de relacionar el mantenimiento del equilibrio natural con el bienestar de la población local.

WISE USE IN SOME GERMAN RAMSAR SITES

presented by E. Rutschke, Forschungsstelle für Ökologie
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Introduction

The question whether or not wise use of wetlands can be realized in developed countries was discussed controversially in the workshop of the Regina Conference. Since the Montreux Conference it is widely accepted that wise use is one of the most important concepts in modern nature conservation.

Depending on the socio-economical, historical, and cultural conditions of the country there are different ways. Solutions found in one country could be reasonable for others. The recommendations on wise use of the Montreux Conference have produced a keen discussion among German authorities and NGOs.

The landscape in Germany was formed by man in the last millennium. Besides the clearing of woods in the middle age, the drainage of swamps, bogs and marshland, the diking of rivers and other measures to regulate the water regime were essential. Practically there are no wetlands without influence by man. Most of them are used in different ways and their original character has changed drastically. On the other hand, since the last century nature conservationists try to conserve wetlands. Many of the German nature reserves are wetlands.

This situation is the background for discussions on wise use. Without doubt every wetland needs measures depending of its specific situation.

Ramsar sites in Germany

The Ramsar sites in Germany can be listed in the following way:

Sea coast: Three Ramsar sites are established in the Wadden Sea covering 510,000 ha. Another one is situated on the coast of the Baltic Sea (Rügen, Zingst, Hiddensee covering 25,000 ha) These Ramsar sites represent 75% of the total area of the German Ramsar sites. Wise use projects have been started in these areas. All of them are parts of national parks.

River valleys: Along the lower parts of the rivers Rhine, Danube, Elbe, and Oder, seven Ramsar sites are established. Another one is situated on the river Havel. All together they cover an area of 67,000 ha, i.e. 10% of the total Ramsar area.

Freshwater lakes: Only 10 out of the thousands of freshwater lakes in Germany are Ramsar sites covering 38,000 ha, i.e. 6% of the total Ramsar area.

Artificial waters: e.g. reservoirs and fish ponds, represent five Ramsar sites covering 6,353 ha, i.e. 1% of the total Ramsar area.

Wise Use of Ramsar Sites

In this paper I will concentrate on the realization of wise use in three Ramsar sites: the landscape of the Lower Oder river, the Lower Havel river and a fish pond area in East Germany (the listed Ramsar site 'Peitzer Teiche').

The Lower Oder Lowland

The Oder flows through a spacious lowland in its lower course. Originally the Oder was delta-shaped forming a marshland scarcely open for man, especially during the frequent inundations. The drainage was started in the 18th century already. The whole area was changed from marshland into grassland and used as pasture. The branches and arms were separated from the main river by sluices and sewers. In the course of 200 years the system of dikes, sluices and pumping stations was completed and the original marshland nearly completely degenerated. This process was intensified during the last decades in the former German Democratic Republic.

However, after the nomination as Ramsar site, it was possible to preserve habitats rich in animal and plant species and individuals. The area is important for migrating and wintering waterfowl, mainly swans, geese and ducks. The Reed Warbler (*Acrocephalus paludicola*) breeds in Germany only in the Lower Oder region. In 1992 it was decided to create out of the Ramsar site and adjoining areas the National Park Lower Oder. That decision and the relatively good knowledge about animals and plants living in the area offer possibilities to realize a concept of wise use. The aim of the measures which had been started in 1992 was to change the character of the whole landscape, to bring it back to a condition more or less close to the origins.

The following measures are taken into consideration or realization:

- the water regime will be totally changed in the next years with the aim to make the area more wet;
- extensive agriculture by reduction of mineral fertilizers, prohibition of pesticides, reduction of the stock of cattle and other measures;
- new regulations for the fishery. For example, the use of electric equipments is forbidden now;
- angling and hunting is allowed only by special permission given by the administration of the National Park;
- developing a concept of 'soft tourism';
- research on the ecological changes following these measures carried out by universities and other institutions;
- measures compensating the socio-economic consequences for the people living in the area. Most important points are compensations for the loss of income and new places of employment. The financial problem is supported by subsidies from the Government of the Land Brandenburg, the Government of Germany and the EC and by special foundations.

Ramsar Site Lower Havel

A project comparable with that in the Lower Oder river has been started in 1990 in the Ramsar site of the Lower Havel. The area is important for breeding, migrating and wintering waterfowl and waders. After the political change in East Germany the opportunity was seized to declare the whole area a nature reserve. Based on that and on the knowledge about the ecological situation in the area obtained in scientific observations, wise use is possible now. The catalogue of measures to be carried out is nearly the same as in the Lower Oder lowland.

The Fish Pond Area of Peitz

The third example of wise use in German wetlands which I will illustrate by measures carried out at present relates to the fish pond region of Peitz. That landscape was established by man in the late middle age. Though the area was used for fishery it was very important mainly for breeding and migrating waterfowl. The balance between man and nature was lost in the last decades caused by overexploitation of the fishponds connected with drastical changes in the character of the landscape. Symptoms of this development were the reduction of the reed belts, the use of fertilizers and feeding the carps with pellets. After giving parts of the area the status of a nature reserve it was possible to establish a wise use project. It was most important to obtain an ecological reevaluation by extensive production. The use of fertilizers and the feeding of the carps was reduced drastically. Other measures are new regulations for waterfowl hunting and the development of 'soft tourism'. On the other hand it was necessary to compensate the loss of income of the fishermen and the degree of places of unemployment. These problems are solved at present by financial support from the Government of the Land Brandenburg.

Conclusions

From the experience how to realize wise use in wetlands we have learned that it is difficult to tackle three problems:

1. To find appropriate solutions for the people living in the area.
2. To encourage the people to participate in the wise use project and to discourage the opposition coming from the people and from the public against the project. It is much easier to obtain money to compensate the loss of income than to obtain general acceptance for measures directed to extensive use of landscape. However, without acceptance of the people affected, wise use cannot be realized. Traditionally progress is understood to be economic growth and people believe in that not only in Germany. Therefore it will be a long process to obtain acceptance for landscape use in the sense of wise use. For this reason it is very important to create examples of wise use and to inform the public about the results as quickly and effectively as possible.
3. To discuss and decide all measures concerning nature conservation and management in detail before a wise use project is started. This is

important because discussions about priorities and the necessity of measures very often are controversial. Measures with the aim of landscape management or conservation of the ecosystem as a whole are not corresponding with special aims of species or habitat protection. No wonder that the term 'wise use' is controversially discussed at present. Workshops and meetings will be organized according to this matter.

Wise use of wetlands is an important of co-existence between man and nature. It will be a lengthy process of which we are yet only at the beginning. As with every start, the first steps are particularly difficult. But once they have been taken, there is room for hope.

WISE USE OF WATERFOWL POPULATIONS,

with special reference to *Anser albifrons* and *Anser fabalis*
in the Western Palearctic

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Abstract: Wetlands used to be among the most common habitats of the world. Wetlands are rich habitats and show an enormous biodiversity. They were also centres of human settlement and man not only profited from the fertility of the soil but also from the (seasonal) concentrations of waterfowl in most of these areas. Waterfowl were an important enrichment of the daily menu. Nowadays especially in the Western Palearctic there are only remnants left of these formerly common wetlands and habitat change and hunting pressure could easily become a real threat to waterfowl populations. But in spite of a common responsibility of the peoples along a flyway for the migratory bird species of that flyway, in most countries hunting of migrating birds is still organized at national level.

The fact that between the countries along the flyway there is no coordination of annual bags, that in most countries there is no bag limit, that bag sizes hardly are manageable and the reproductive rate varies greatly from year to year, shooting of migrating waterfowl easily can become a serious threat to the survival of the hunted populations, as is shown by the example of two goose species (*Anser albifrons* and *Anser fabalis*).

For that reason it seems necessary to develop a management plan in the scope of a Waterfowl Agreement under the Bonn Convention and at the same time to protect the most important breeding, stopover and wintering sites under the Ramsar Convention. The data base for such an integrated concept is still rather poor and has to be improved in the coming years. Because of the fact that this can only be done when there is an excellent coordination between the activities under the Bonn and the Ramsar Conventions, it is necessary to have an official point of intersection between the scientific and administrative divisions of the two conventions.

Introduction

Wetlands used to be among the most common habitats of the world. Shallow coastal areas, river deltas, floodplains, marshes, bogs and swamps covered extensive areas. About two thousand years ago more than a quarter of the area of Germany consisted of typical wetlands. From that time we have the statements of Julius Caesar (in Woyte 1951) who mentioned the endless woods and swamps of Germany, and of Tacitus (in Fuhrmann 1971), who stated that the

whole of Germany with its woods and swamps made a horrible and disgusting impression. Like in other parts of the world nowadays there are only remnants left of these formerly common wetlands.

Wetlands are rich habitats. They not only show an enormous biodiversity but, as far as we know, they were also centres of human settlement. The people not only profited from the fertility of the soil but also from the (seasonal) concentrations of waterfowl in these areas. Waterfowl were an important enrichment of the daily menu and we have a number of archeological proofs that waterfowl were hunted and eaten by man as far back as prehistoric times. But in the course of history the human population increased, the area of wetlands decreased, hunting methods became more effective and the hunting pressure on waterfowl grew.

Although it has been known at least since Roman times that some bird species migrate over long distances (e.g. Plinius in König 1986, Gesner 1669) it took until the second half of the 20th century before the idea of responsibility for migrating bird species to be shared by the nations along a flyway took root. Until that time hardly anybody worried about possible negative effects of habitat change and hunting pressure on waterfowl populations. The people counted on the seasonal return of waterfowl concentrations in the same way as they expected the next rain. The only information about numbers we find in older literature are 'rare', 'common', 'thousands', 'millions', 'the number of birds darkened the sky'. At the beginning of the 20th century more and more people became aware of the finiteness of wetlands and the resource 'waterfowl' and their activities resulted in yearly international waterfowl counts as well as in several international conventions, like the Ramsar and Bonn Convention.

But in spite of all this, in most countries the hunting of migrating birds is still organized at national level, although 'wise use' of wetlands also would mean 'wise use' of the resource 'waterfowl', i.e. international coordination along the flyway of migratory species to enable sustainable utilization of these species. Most waterfowl species are hunted in most of their living range without exact knowledge about migration routes and migratory behaviour, without regard to either their yearly reproductive and natural mortality rates or the total number shot in the previous part of their flyway and without international coordination of hunting and protection activities.

Based on actual information, an attempt is made in this paper to develop a first rough estimate of the effect of hunting on two strongly hunted waterfowl species: White-fronted Goose (*Anser albifrons*) and Bean Goose (*Anser fabalis*). Although the most common goose species wintering in Western Europe there is very poor knowledge about the migration routes and stop-over sites of White-fronted and Bean Geese. With the exception of some wintering and stop-over sites both goose species and their habitats are unprotected throughout their whole living range (Cramp & Simmons 1977, Van Roomen 1989).

Population development in White-fronted and Bean Geese

Since the 1950s the populations of the Bean and White-fronted Geese have increased at most of the Western European wintering sites, with exception of

the British sites (Van den Bergh 1983 & 1985, Ebbinge et al. 1987, Ganzenwerkgroep 1976, 1977, 1978, 1979, 1980, 1981, 1983, 1984a & b, 1986, 1987a & b, 1989, 1990, 1991 and 1992, Gerdes et al. 1978 & 1983, Kuyken 1975, Lebret et al. 1976, Meire & Kuyken 1991, Mooij 1991a, b, & c & 1993, Philippona 1972, Timmerman 1976).

In spite of the enormous increase in goose numbers in western Europe it cannot be stated that the Eurasian populations of Bean and White-fronted Geese have increased in the same way. In Eastern Europe the numbers of Bean and White-fronted Geese seem to be on the decrease (Boyd & Pirot 1989, Cramp & Simmons 1977, Dick 1986, 1990 & 1992, Madsen 1987 & 1991, Sterbetz 1968, 1971, 1982a & b & pers. com.) and the Greenland race of the White-fronted Goose, wintering on the British Isles, has just survived a period of decrease and seems to be increasing again from a very low level (Boyd & Pirot 1989, Fox & Stroud 1981, Greenland White-fronted Goose Study 1990, Madsen 1987 & 1991). Literature about the number of wintering geese in Asia (Perennou et al. 1990, Rogacheva 1992, Scott & Rose 1989, Van der Ven 1987 & 1988, Yokota et al. 1982) shows that the goose counts in this area are still incomplete and that the populations in some well-known areas are still decreasing from year to year or have stabilized on a low level in the last few years.

Flint & Krivenko (1990) reported that the populations of White-fronted and Taiga Bean Goose (*Anser fabalis fabalis*) in Russia seem to be stable and the numbers of Tundra Bean Goose (*Anser fabalis rossicus*) are falling sharply. Rogacheva (1992) stated that the Taymyr population of White-fronted Goose (estimated population size about 430,000 birds, i.e. about 57% of Western Palearctic Whitefronts) has undergone a sharp decline since the 1940s and at present has probably stabilized at a much lower level than before. For Bean Geese Rogacheva (1992) recorded a dramatical decrease.

During two expeditions to Eastern Taymyr the author gathered data about breeding densities of White-fronted and Bean Geese and found densities of 0.2 (1989) and 0.1 (1992) nests per square kilometre for Whitefronts and of 0.1 (1989 & 1992) for Bean Geese in the basin of the Taymyr river. Soviet biologists showed us the results of their counts of breeding White-fronted and Bean Goose pairs in the eastern part of Taymyr Peninsula between 1968 and 1984. In this part of the breeding area the yearly breeding density of White-fronted Geese fluctuates between 0.25 and 4.0 and of Bean Geese between 0.1 and 6.0 nests per square kilometre. In the valley of the Pura river (West-Taymyr) Kokorew (1985) found breeding densities between 0.2 and 0.9 for White-fronted and between 0.03 and 0.32 nests per square kilometres of Bean Geese for the period 1978 - 1982. Between 1986 and 1988 Syroechkovskiy et al. (1991) found for Vaygach Island between 1.0 and 3.0 nests per square kilometre for Bean and 1.5 nests (1 year) per square kilometre for White-fronted Geese. In Western Taymyr expeditions recorded at Lydia Bay in 1990 breeding densities for Whitefronts between 0.75 and 4 ($m = 1.8$) and in 1991 between 0.4 and 4 ($m = 1.0$) nests per square kilometre (Ebbinge & Boere 1991, Spaans 1992). Rogacheva (1992) recorded a considerable decline in breeding densities of White-fronted and Bean Geese on the Taymyr Peninsula between the 1960s and the 1980s.

Although these results are possibly not representative of the whole breeding area, the densities found seem to be comparable and there seems to be no increasing tendency in breeding densities of White-fronted and Bean Geese on the Taymyr Peninsula between 1968 and 1992.

During several expeditions to the Taymyr Peninsula since summer 1989, 523 White-fronted Geese were marked with leg rings and neck-collars at their moulting sites. Out of these birds 53 were resighted during winter 1989/90, 1990/91 and 1991/92 in Belgium, Germany, Great Britain, Kazakhstan, the Netherlands, Rumania, the Russian Federation, Sweden and Turkey. These results of goose-ringing on the Taymyr Peninsula show that a considerable number of White-fronted Geese breed and moult on the Taymyr Peninsula and winter in Western Europe. This number is considerably higher than was thought up until now. This means that Rutschke's hypothesis (Rutschke 1987) that the migration route from the breeding to the wintering grounds for several breeding populations of Whitefronts is about of the same length and that the White-fronted Geese of Taymyr winter south of the Caspian Sea is wrong. That at least a part of these geese winter in Western Europe had already been contended by Cramp et al (1977) and Rogacheva (1992). Several White-fronted Geese of the 'Baltic-North Sea group', ringed in the Netherlands and England, were recovered in south-eastern Europe in later winters, on the wintering sites of the 'Pannonic' and 'Pontic group' and from the breeding areas between Archangelsk and the Taymyr Peninsula. Ringed birds from the Taymyr Peninsula were recovered at the wintering sites of western and eastern Europe, on the sites of the 'Baltic-North Sea' and the 'Pontic group' as well as on wintering sites of south-west Asia, on the sites of the 'Anatolian' and 'Caspian group'.

As a result of these facts it seems that the wintering sub-populations of the Western Palearctic are not as clearly separated as has been thought and there is a much stronger interchange between these groups than has been assumed up to now e.g. by Bauer & Glutz von Blotzheim (1968), Cramp & Simmons (1977), Lebet et al. (1976), Philippona (1972), Rutschke (1987), Timmerman (1976) and Timmerman et al. (1976). This would mean that the breeding birds of one area are perhaps distributed over several wintering sites of the Western Palearctic in winter. At each of these wintering sites we therefore find a mixture of several regional breeding populations from the breeding range between Kanin Peninsula and Khatanga River. There are several indications that new pair bonds are made in the winter areas (Van Impe 1978, Johnsgard 1978, Rutschke 1987). The mixture of several breeding populations and the formation of new pairs on the wintering grounds would be of great genetic importance; it would enlarge the possibility of genetic exchange between breeding populations and decrease the chances of developing new subspecies.

The fact that the Eurasian race, *Anser albifrons albifrons* (Scopoli, 1769), has a vast breeding area on the tundra between the Kanin Peninsula and Kolyma river (over a distance of about 4 500 km) without showing much geographical variation, could indicate that there must have been a permanent intensive interchange between local breeding populations on all winter sites, which in turn indicates that this hypothesis could be valid.

Also the results of the ringing programme of Greenland White-fronted Geese *Anser albifrons flavirostris* seem to support this hypothesis. Although these birds were caught and ringed in a very limited area in west Greenland (400 km²) they were recovered dispersed over the wintering sites of Ireland and Scotland, i.e. they were distributed over almost the whole wintering area of the subspecies (Wilson et al. 1991).

Such a high rate of interchange between different breeding and wintering populations would not only ensure genetic exchange but would also enable these populations to react relatively quickly to a change in wintering conditions by shifting from one site to another, even over large distances.

All these data could indicate that there has been no general increase of White-fronted and Bean Goose numbers in Eurasia but a major shift of wintering birds to Western Europe.

Reproduction and mortality rates

The percentage of juvenile birds in the wintering populations of White-fronted and Bean Geese varies widely from winter to winter. The average reproduction rate during the period 1977-1992 - deducted from the mean proportion of first-winter birds counted at the wintering sites of the Lower Rhine area - is 28.5% for White-fronted and 24.7% for Bean Geese. In the Netherlands the mean proportion of first-winter Whitefronts during the period 1977-1990 was 28.4% and of Bean Geese during the period 1981-1990 was 25.9% (Ganzenwerkgroep 1979, 1980, 1981, 1983, 1984a & b, 1986, 1987a & b, 1989, 1990, 1991, 1992).

During a goose catching action on the Taymyr Peninsula in summer 1989 it was found that the proportion of one year old birds on the moulting site in the basin of Taymyr river was 32.0% and half a year earlier at the Lower Rhine goose wintering site 45.3% and in the Netherlands 44% (Ganzenwerkgroep 1991). In summer 1992 the proportion of one year old birds on Taymyr was 21.4% and half a year earlier at the Lower Rhine 38.0%. In both years only small numbers of geese started breeding because of bad weather conditions, i.e. most of the geese were gathered on the moulting sites. This would mean that in both seasons investigated at least 30-40% of the first-year birds disappeared in a period of 4-6 months. If this 'disappearance rate' and the mortality rate are the same, this would mean that the mortality rate of first-year birds is 30-40% in the period of their first winter and spring migration. We have no data about the mortality rate during autumn migration. According to the data of several waterfowl species gathered by Owen (1982) and Owen & Black (1990 & 1991) about 30-60% of the juveniles do not survive the first year of their life. It seems that this is also valid for goose species and the annual mortality rate of first-year Whitefronts of the Taymyr population must be between 30 and 60%. Compared to the mean annual mortality rate of 12-20% for the whole population as estimated by Ebbinge (1991a) and of 25-30% as calculated in this study (see later), this seems a rather high value, but seems to support the assumption in Bauer & Glutz von Blotzheim (1968) and Rutscke (1987) that the mortality rate of first-year birds is at least about double the mortality rate of adults.

If these calculations are correct, it becomes clear that the percentage of young birds recorded in the wintering area maybe gives a good impression of the reproduction rate of the geese in the previous summer, but that the actual reproductive rate is higher. By a mean percentage of first-year Whitefronts of 28.5% and of first-year Bean Geese of 24.7% at the wintering site the mean actual yearly reproduction rate should be calculated at a level of 33.5-40.5% (m = 37%) for White-fronted and of 29-35% (m = 32%) for Bean Geese.

Hunting as a factor influencing population size on migration

During migration through Russia, Belarus, the Baltic States, Kazakhstan, Ukraine, Poland, Germany and Hungary as well as on the wintering grounds in the Netherlands, the Balkan States and Turkey geese are heavily hunted. According to a conservative estimate the annual goose bag on the western part of the territory of the former USSR is about 200,000 geese (Priklonski & Sapetina 1990). Rogacheva (1992) reported that at the Taymyr Peninsula alone about 50,000 geese are shot annually, of which 27,000 - 30,000 are Whitefronts. In Poland the number of geese killed by hunters is about 12,000 (Landry 1990, Wieloch 1992), in Denmark 12,000 - 13,000 (Jepsen & Madsen 1992), in Sweden about 7,500 (Hedlund 1992), in Germany about 10,000 (Mooij 1991b & 1992b, Wiese 1991) and in the Netherlands 35,000 - 50,000 (Oostenbrugge et al. 1992, Wiese 1991). Goose bags of most of the Balkan States and Turkey are unknown. For Hungary Farago (1992) and Landry (1990) gave a official bag size of 7,000 - 7,500, for former Czechoslovakia Urbanek (1992) about 1,500, for Rumania Munteanu (1992) about 5,000 and for Austria Dick (1992) about 2,000 geese.

Based on these data a conservative estimate can be made that every year about 300,000 geese are killed by hunters on the migratory routes of the Western Palearctic. White-fronted Geese are with an estimated population size of 750,000 the most common goose species of the Western Palearctic, followed by Bean Geese with about 300,000 and Greylag Geese with about 280,000 birds (Madsen 1991). The proportionate numbers of the species will surely be reflected in the composition of the species in the hunters' game bags, i.e. that White-fronted Geese supply at least 55% and Bean Geese at least 22% of the goose bags. This means that at least 165,000 Whitefronts and 66,000 Bean Geese (about 22% of both populations) are killed by hunters every year. These are conservative estimates based on official data of the 1980s or earlier. The estimated number of geese shot during migration compare very well with the estimates of Ebbinge (1991a). Not included in these numbers are the birds that die after crippling or lead poisoning, which means that to this mortality rate caused by direct killing by shooting at least another 25% of the total number bagged, i.e. about 6% of the population has to be added, caused by indirect effects of shooting and crippling loss (Ebbinge 1991a, Mooij 1990 & 1991d, Morehouse 1992) except for the birds that die of natural causes.

Due to the fact that illegal hunting seems to be common in Siberia (Novak in prep.), the bad economical situation most of the countries of Eastern Europe, Russia and Kazakhstan are facing, and the growing hunting tourism of Western European hunters to Eastern European countries, the number of (illegally) killed geese is likely to increase in the coming years.

It seems that shooting has become the most important mortality factor in geese. The mean mortality rate of White-fronted and Bean Geese (*Anser fabalis*) caused by shooting reaches at least 28% of the Western Palearctic population, the mean reproductive rate of these populations is about 37% (*Anser fabalis*) and 32% (*Anser fabalis rossicus*) respectively. This means that there is a yearly margin of 9% (about 67,500 birds) in White-fronted and about 4% (about 12,000 birds) in Bean Geese for natural causes of death (age, starvation, exhaustion, illness, accident, etc.) and/or for increase. Shooting surely can be compensatory for a part of the natural mortality factors but not for all of them. Besides the selective effect of shooting is different from the effect of natural selective mechanisms and hunting is likely to cause far-reaching changes in sex ratio, age structure and genetic composition of the hunted populations (Rusanov 1990). The long-term effects of these changes are unknown.

Maybe the statement of Flint & Krivenko (1990) and Rogacheva (1992) that the populations of White-fronted and Taiga Bean Geese in Russia seem to be stable and the numbers of Tundra Bean Goose are falling sharply could be explained by this high hunting pressure.

These calculations show that because there is no coordination of annual bags between the countries along the flyway, that in most countries there is no bag limit, that bag sizes are hardly manageable and the reproductive rate varies greatly from year to year, shooting of migrating geese can easily become a serious threat to the survival of the hunted populations.

Conclusions

The main result of these reflections must be that today's hunting practice on White-fronted and Bean Geese in the Western Palearctic cannot be regarded as 'wise use' of migrating waterfowl. The situation in the Asian part of their living range seems even worse (Perennou et al. 1990, Rogacheva 1992, Scott & Rose 1989, Van der Ven 1987 & 1988, Yokota et al. 1982). It appears to be necessary to develop a strategy for the management and wise use of the populations of both goose species.

The situation of other waterfowl species does not seem to be much different. Although several swan and duck species seem to show an increasing trend in the Western Palearctic (Rose 1992) it has to be considered that data are still incomplete. For most waterfowl species there are no data about yearly reproduction and mortality rates as well as annual hunting bags and there is only poor knowledge about migratory routes, actual breeding and stopover sites (Van Roomen 1989). The fair conclusion has to be that hunting waterfowl is more a case of Russian roulette than of planned and controlled 'wise use'.

As well as the direct consequences of shooting, hunting can also influence waterfowl populations in indirect ways. Hunting disturbance causes changes in behaviour and distribution (Bell & Owen 1990) as well as far-reaching changes in sex ratio, age structure and genetic composition within the hunted populations (Rusanov 1990). The long-term effects of these changes are unknown.

Management implementation

Most waterfowl are important quarry species and their large concentrations during migration and wintering as well as their breeding and wintering in wetland habitats make them extremely vulnerable to the effects of human activities. At the same time these big waterfowl concentrations are very attractive to a great number of people to observe. Therefore it is of utmost importance to develop concepts to protect waterfowl throughout their annual cycle and in the whole of their living range not only by protecting the species but also by protecting the wetlands they live in.

Due to the poor economical situation and the need of affordable fresh meat in Eastern Europe, Belarus, Russia, Ukraine and Kazakhstan and increasing shooting tourism from Western to Eastern Europe, the number of (illegally) killed waterfowl - especially geese - will probably increase in the coming years. At the same time the crash of executive power and governmental authority in some of these states makes it difficult to control hunting or to enforce protection laws.

The logical consequence of this development has to be stricter protection of sites and species in the countries with intact governmental systems, especially reduction of annual hunting bags, until a protection and management system functions in the whole of the living range throughout the annual cycle.

In the meantime it is necessary to organize an international research programme to gather and review data about breeding biology, reproductive and mortality rates, migratory routes and stopover sites as well as the effects of hunting on the most important quarry species to develop a management plan in the scope of a Waterfowl Agreement under the Bonn Convention.

In the scope of this research programme it is important to build up a continuous monitoring system to record the annual reproductive rate of these species in the breeding areas to create the conditions for the fixing of annual hunting bag limits: the previous summer's reproductive rates should be the base for the international and national bag limits of the following hunting season.

The costs of the programme should be payed by the flyway states according to their economic power and annual hunting bags.

As soon as there are enough data for the most important quarry species a management plan in the scope of a Waterfowl Agreement under the Bonn Convention has to be developed, with special reference to a controllable annual hunting bag limitation system for the whole living range.

At the same time it is important to protect the most important breeding, stopover and wintering sites under the Ramsar Convention and to gather and review data to develop a management plan for less important and non quarry species as well.

Such a plan for the protection and management of species and their sites is not a limited job, with a fixed start and finish, but a dynamic process that is subject to constant review and revision.

Only on the base of site protection and management under the Ramsar Convention and species protection and management under the Bonn Convention it is possible to create an operative wise use concept for border-crossing waterfowl populations. Both conventions are the instruments to create a system for the maintenance of biodiversity and the management of natural resource use in a sustainable way. This means the necessity of a constant and intensive cooperation between both conventions.

INVENTORY, RESEARCH AND MONITORING WITHIN THE WISE USE CONCEPT

verbal presentation made by T.E. Dahl, National Wetlands Inventory,
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There is no simple answer to the question of 'How to achieve the wise use of wetlands'. Technical, social, and economic forces exert influences to varying degrees upon the wide array of agencies, organizations and institutions that have responsibility for implementing the wise use principles within the nations of the world.

Of the tools available to a country striving to attain wise use of wetlands, the Wise Use Working Group has selected several main elements for elaboration and to provide further guidance. For discussion purposes, these elements have been aggregated and are represented by Institutional Arrangements; Site Management; Information Transfer; Training and a broad category termed Technical/Scientific Actions. This paper deals with the components that best fit into the Technical/Scientific Actions, specifically inventory, research and monitoring of wetlands.

At the Meeting of Experts held in Texel, Netherlands (September 1992) a series of case studies were presented as examples of wise use from around the world. At the conclusion of these presentations, it was clear that no single case study could be used as a model for attaining wise use. Rather, these case studies could be presented as examples of actions taken 'towards' the achievement of the wise use principle. Actions as described by the main elements in the Wise Use Guidelines contribute toward wise use. Wise use as a premise is perhaps best achieved when these actions are collective and comprehensive.

Thus the interrelationship that should exist between the main elements cannot be overemphasized. Clearly, wetland inventories, wetland research and monitoring need to be designated and conducted in a fashion not as if they were the end product, but so that they contribute to other elements all working in concert towards the wise use of wetlands.

Each of these actions should have closely related objectives and goals. In general, inventories, research and monitoring activities should provide information for the users both at the institutional or policy level and the management level. They should in some way promote greater awareness of wetland values and/or functions that may be used by policy makers (institutional), managers, contribute to information transfer or public awareness and training exercises. Inventory, research and monitoring activities should also be designed to provide transfer of both the techniques employed and the results obtained.

Inventory

While there are a number of different interpretations of what constitutes a wetland inventory - there should be similar objectives regardless of the methods, extent or intensity of the inventory process itself. These objectives may be summarized by the following generalizations:

- An inventory should provide baseline information on wetland location and numbers.
- An inventory should not be a static tool. To be useful, inventories need periodic updating.
- The inventory should lend itself to applications of other data. Landscape or catchment-wide maps or other land-based data sets are the most obvious examples.
- An inventory should enable user(s) to draw associations between wetland types, sizes and socio-cultural uses.
- Inventories may be initiated from the local level and build upward or they may begin at the national level and proceed to incorporate local level information.

When conducting wetland inventories several key issues routinely arise. Some of these may include: Should inventories be standardized such that there is some uniformity across national borders? What are the essential products of an inventory? Should an inventory assign values? How often should an inventory be updated? All of these are important considerations when planning to conduct a wetland inventory.

Research

Research can be defined as anything that expands our knowledge of wetlands. Successful research often spawns more questions and needs than other scientific endeavours. Consequently research priorities are constantly changing. Consistent with the goals for conducting research are the following elements:

- Establishing research priorities must be an evolving process based on the level of knowledge and the priority given to research questions.
- Research must be interactive and integrative with management and other organizations or institutions that are responsible for wetlands.
- Research results must be understandable. This is particularly true in regards to policy makers and legislators.
- Research activities must consider landscape (catchment) functions and interactions.

The sustainability of wetland utilization is the most urgent priority for research to address. This may be true worldwide as developing countries look to sustain traditional utilization of wetland resources while developed countries seek ways to justify natural resources values associated with wetland systems.

Other considerations regarding wetland research could address the issue of how interchangeable wetland research studies may be given the diversity of cultural needs and differing views on functions, values and potential uses. In other words, is some research regionally dependent?

Monitoring

During the technical workshops of the XXV International Waterfowl and Wetlands Research Bureau (IWRB) in November, 1992 monitoring wetland change was addressed in at least two separate workshop sessions. For the ease of discussion both wetland loss and wetland ecological change topics will be combined and addressed under 'monitoring wetlands'.

There is a common misconception that wetland loss studies or other wetland monitoring activities are dependent upon complete inventories. This is not the case. Just as the Ramsar Bureau is able to monitor listed sites simultaneous to additional wetlands being added to an expanding international list, inventories and monitoring processes can be developed independent of each other. Over the decade, monitoring quantitative and qualitative changes in wetlands will assume additional importance. Both developed and developing countries must be prepared to conduct monitoring studies to help answer difficult questions about wetland extent, values and sustainability.

Some features of wetland monitoring should include:

- Monitoring, unlike inventory, must accommodate some recognition of wetland function.
- Monitoring should recognize landscape (catchment) level factors as contributors to wetland ecological change.
- Monitoring should be conducted as a recurring process over time.
- Ideally, the monitoring process should address qualitative changes and area changes.

Questions relative to monitoring include a controversial topic involving ecological change versus human induced ecological change. This inevitably leads to a follow-on question: Can there be human use without human induced ecological change? In a global context an additional question arises: Is standardized, replicable monitoring network for wetlands desirable? Is it possible? Answers to such questions have very real ramifications for monitoring global change effects on ecosystems including wetlands.

Summary

In conclusion, there are three key points:

- 1) Inventory, research and monitoring as technical tools to achieve wise use must not stand alone. They must be linked to each other and to the other main elements enumerated in the Wise Use Guidelines to be most effective.
- 2) Linkages within and between professional disciplines; between different ministries dealing with wetland resources; between national, regional and local interest; and internationally between Contracting Parties working toward the wise use concept.
- 3) Prioritizing actions depends on practical determinations specific to each institution within each country. Staff, funding, technology and politics all play a role in determining actions and products. Regional workshops or meetings of experts may be desirable and it is here where the Ramsar Bureau may be helpful in organizing and/or coordination efforts.

There may be no absolutely correct answer or formula to sequentially achieve the wise use of wetlands. We all must strive to do what is possible toward that end.