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Research Article

INTEGRATION OF ULUABAT LAKE RAMSAR WETLAND MANAGEMENT TO SUSURLUK RIVER BASIN MANAGEMENT WITH CRITICAL PATH APPROACH

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ABSTRACT

Wetlands provide great benefits for people due to their ecological and hydrological functions. Although rapid and unsustainable changes of wetlands and river basins cause disruption of the natural biological cycle, problems such as flood, drought and pollution are often encountered as a consequence of this situation. The proper use and allocation of water in wetlands is important in terms of sustaining and protecting these areas so that local people and stakeholders can benefit from the services. River basins are an important geological unit in terms of wetland and water resources management. This research aimed to draw the roadmap for the integration of wetland management into river basin management (RBM), in Turkey. In this context, Uluabat Lake Ramsar Wetland was chosen as the Sample Area within the Susurluk River Basin. We see that the “Critical Path” approach for integration is an effective method. Successful implementation of the effective integration of wetlands to be prepared in this context into river basin management plans (RBMP) is critical for ensuring the sustainability of the wetland. In the light of this information, it is concluded that making applications will be beneficial for integration. The “Critical Path” approach in the Ramsar areas can be carried out in parallel while preparing the River Basin Management Plan, and cost-effective solutions can be produced with wetland functions in the measures program and can be maintained at the River Basin Management scale.

Keywords

Ramsar Wetland Management, River Basin Management, Uluabat Lake, Critical Path

1. INTRODUCTION:

Wetlands provide great benefits for people due to their ecological and hydrological functions. The most important of these are water supply, water cleaning and flood control. There are also socio-economic benefits such as fisheries, forestry, biodiversity, recreative features. River basins are an important geological unit in terms of wetland and water resources management. Although rapid and unsustainable changes of wetlands and river basins cause disruption of the natural biological cycle, problems such as flood, drought and pollution are often encountered as a consequence of this situation. The proper use and allocation of water in wetlands is important in terms of sustaining these areas and ensuring that local people and stakeholders can benefit from and benefit from services (Ramsar Convention, 2005). Due to the ongoing increase in water demand and pollution, management of water at river basin scale has become a priority condition in order to conserve water resources today. In the past, wetlands and river basins were managed by different units and with different goals. One of the biggest problems experienced in the integration of wetlands into river basin management is that wetlands are not integrated when preparing river basin management plans or in the initial stages of management. Thus, despite contributing to the sustainability of the river basin in a healthy, productive way and its important functions, wetland priorities often lag behind those of river basin management (Ramsar Convention, 2005). Considering the important role of wetlands in river basin management, (Ramsar, Iran, 1971), as supported by the wetland meeting, the protection and rational use of wetlands in river basin management is critical to sustain and increase the benefits they provide for people. The importance of the hydrological functions of wetlands, such as groundwater feeding, flood regulation and water quality improvement, taking into account the main ecological functions of the wetlands regulating water regimes, the recognition of the absolute connection between the area, understanding the need for planning on a river basin scale, including wetland conservation and integration of water resources indicates that the importance of the functions of the wetlands and their integration with river basin management are emphasized internationally. Therefore, the Parties of the Ramsar Convention prepared a guide in 1999 for the integration of wetlands into river basin management.

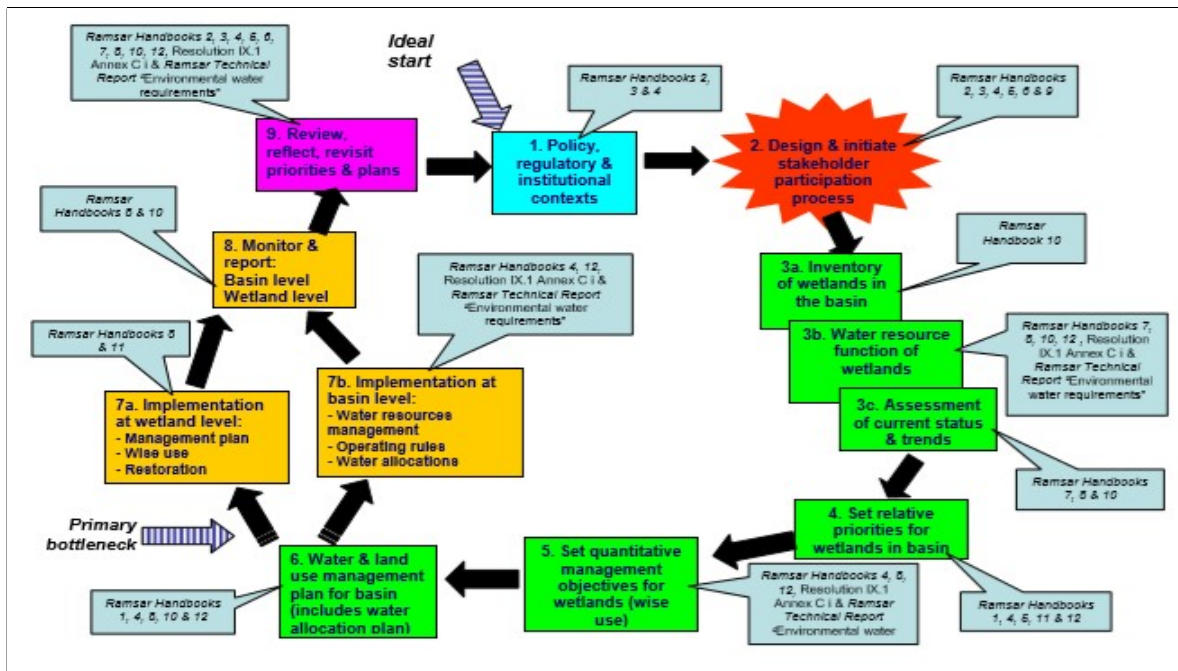
In 2005, they proposed the "Critical Path" approach by considering how to integrate with an innovative approach. In fact, an EU funded WETwin project has been carried out in order to develop its capacities in this context. In the WETwin project, the "Critical Path" approach has been handled and studies on the integration of wetlands into river basin management have been carried out and the effectiveness of the "Critical Path" approach has been investigated. When we look at the data obtained as a consequence of these works, we see that it is determined that the "Critical Path" approach is an effective method. The integration of wetlands into the river basin management plans to be prepared in this context is important in terms of not repeating the faults experienced and successful integration of wetland management into the River Basin Management (RBM). Since it is the most reliable method with proven effectiveness, it will be an appropriate method to integrate with the "Critical Path" approach (Ramsar Convention, 2005; Güney B., 2014). Integration of wetlands and needs with the water sector started in the mid-1990s in many countries, over time it was observed that this need increased in the environment and wetland communities. Many countries are still engaged in the determination of wetland ecosystem status in water allocation and management, the identification of water users and the preparation of many similar regulations and policies. Although countries have achieved good

consequence in integrating wetland management into water resources management, area scale, sub-basin scale and local scale, they have difficulty in integration with river basin management. A clear and understandable river basin management provides the wetland management with the opportunity to indicate their input and act in partnership with water management planners and managers. The "Critical Path" method has been developed in order to ensure the effective integration of wetlands into river basin management and to rank planning and management priorities. Dickens et al. developed the original "Critical Path" approach of 2004, but in this work the generally determined framework used by Ramsar Managers is included. This method has been developed for the integration, management and rational use of wetlands to river basin management. The critical path approach draws a road map on: Includes sustainable planning, review (situation assessment) and decision making activities related to water resources (Steps 1-6) Implementation of wetland management objectives (Steps 7a-7b) Monitoring, reporting and evaluation stages of targets and plans (Steps 8-9) (Ramsar Convention, 2005 ; Güney B., 2014).

2. METHOD:

2.1. Critical Path Approach

Critical Path Approach Steps ; 1. Steps , policy, law and institutional content are prepared 2. Steps, hydrological, biophysical and socioeconomic review, assessment and decision-making activities are required to design the stakeholder collaboration process, the planning phase and the management plan. 3. Steps , 3a- Taking wetland inventory, 3b- Definition of functions of wetlands, 3c- Status and trends need to be determined. 4. Steps , is the determination of the priorities for wetlands at the basin level. 5. Steps, determination of quantitative management targets for the wetlands (Wise use principle) management plan includes wise use and restoration stages on the basis of the area. 6. Steps, preparation of water and land use management plans on basin basis (should also include water allocation plans). Implementation Phase, river basin management plan and related wetland management plans (WMP) are implemented in parallel, 7. steps, Basin basis, water resources management, operating rules are applied 7a- Application at wetland level – Management Plan – Wise Use - Restoration 7b- Application at Basin Level - Water Resources Management –Operating Rules - The water allocation audit phase, monitoring, data analysis, long-term reporting and intervention are performed. 8. Steps , monitoring and reporting are carried out separately on basin and wetland basis, 9. Steps, evaluation, revised plans and priorities are determined (Ramsar Convention, 2005).



(Ramsar Convention, 2005)

Figure 1. Critical Path Approach

3. EVALUATIONS

3.1. Uluabat Lake Ramsar Wetland in Susurluk River Basin

Uluabat Lake is located within the Susurluk River Basin. The borders of Susurluk Basin and Uluabat Lake are as in Figure 2.



(Susurluk River Basin Management Plan, 2018)



(WWF-Turkey, 2008)

Figure 2. Susurluk River Basin and Uluabat Lake Basin

Figure 3. Uluabat Lake Ramsar Wetland Area

The tectonic origin extending in the east-west direction to the south of the Marmara Sea was formed in the Yenisehir Bursa-Gönen collapse area. The area shown with red dashed lines in the picture below (Figure 3) is the Uluabat Lake Ramsar Area. It gained Ramsar Status in 2001 and was included in the 'Living Lakes Network' in 2001. The basin of the lake is mostly located within the borders of Bursa, Kütahya, Balıkesir province, very few in Bilecik province and covers an area of approximately 10500 km². It is located within the borders of Karacabey and Mustafakemalpaşa districts. It is 23-24 kilometers long and 12 km wide in the east-west direction. Lake area varies according to years and seasons. The highest value ever given for the lake area is 24,000 hectares and the lowest value is 13500 hectares.

Its height from the sea is about 8 meters. The depth of the lake is around 2- 2,5 m in many places and this depth decreases up to 0.8-1 m in the summer months. A large part of it is quite shallow and the depth in these sections varies between 1-2 m. The deepest place is the pit up to 10 meters in Halilbey Island. The northern shores of the lake are relatively indented compared to other parts. The most important water source that feeds the lake is Mustafakemalpaşa Stream. The karst springs at the bottom and around the lake and the small streams that reach the lake during rainy periods contribute to the feeding of the lake. The amount of water entering the lake varies greatly according to the seasons and years. The excess water of the lake is discharged to the Susurluk Stream with the Uluabat Stream in the west of the lake and to the Sea of Marmara through this stream. However, when the lake water level falls below the Uluabat Stream, the stream flows towards the lake and feeds the lake (WWF-Türkiye, 2008; Güney B., 2014).

3.2. Drawing Of The Road Map With The Critical Road Method On The Integration Of Uluabat Lake Ramsar Wetland Management To Susurluk River Basin Management

3.2.1.Steps, Policy, Law and Institutional Content Are Prepared

To integrate wetlands into river basin management, national and local policy and laws need to be strengthened. Integrated water resources management policies and laws should be harmonized under national wetland policies, national environmental plans, national biodiversity strategy, international treaty and legal frameworks. The national water policy should be designed to include not only river basin management but integrated wetland management policies, local strategies or action plans. Also, at this stage, it is necessary to define the duties and responsibilities of stakeholders in water resources management, river basin and wetlands, and to facilitate implementation. It will be beneficial to mention who the stakeholder groups are within the legal arrangements to be made and their duties and responsibilities. In this context, the legal infrastructure required for the integration of wetlands into river basin management should be established primarily through regulations, communiqués or circulars. This legal infrastructure should include the following topics. Wetlands should define their functions and the services they provide, should contain guiding substances for determining the wetland inventory and functions, Wetland definition should include the definition of water body and sub-basin in detail and should include the role of lakes in this regard (For example, the entire lake is not a wetland, the wetland is a littoral zone, these definitions should be stated in the explanatory legal arrangement, the lake is an aboveground water source, it may be a river basin or a basin of water. It can even be an independent lake basin independent of the river basin).

It should include the roadmap envisaged for the integration of wetlands into the River Basin Management (Critical Path Method), it should contain an arrangement for items for

arrangements related to wetlands in landscaping plans, zoning plans and similar upper scale plans. Regulatory provisions for the processing of wetland protection zones and river basin management plan items, and therefore wetland-related items, in the environmental plan provisions and legends should be added to this legal framework. The relationship between upper-scale plans and wetland management plans and river basin management plans should be specified. It should contain substances to determine the water requirement required for the ecological sustainability of the wetland. Arrangements should be made regarding the measures to be taken to meet the water needs of the wetland. It should include issues such as the definition of authorities, the identification of stakeholders, the determination of their mandate and responsibilities. The duties of the relevant institutions and organizations should be mentioned within the scope of these definitions. It should also include the necessary infrastructure for monitoring, audit and reporting for prepared management plans. The Directorate of Nature Conservation and National Parks carries out studies for the protection of Wetlands based on the Environmental Law within the scope of the Wetlands Regulation. However, these studies are primarily aimed at conservation of biodiversity within the framework of duties and powers and are on a basin basis. Studies on the basis of the sub-basin are not sufficient. These arrangements should be made on the basis of River Basin Management in order to ensure not only biodiversity conservation but also sustainability of the whole basin.

3.2.2. Steps Design of the Stakeholder Cooperation Process

Participation of relevant, affected and responsible stakeholders is one of the important stages of the critical path approach. Stakeholder engagement can be done in two stages. First of all, awareness raising, participatory approach, cooperation and official negotiations are held on this platform. Secondly, stakeholder engagement or cooperation can be realized. The document, which was prepared as a consequence of the meeting held by the Parties of the Ramsar Wetland Convention in 2005, envisages the assessment of Wetlands within the River Basin Management and the determination of stakeholders and priorities within this scope. There are local wetlands commissions in Turkey and these commissions are well know in the area of the existing pressures and impacts on wetlands they know quite well. There can be many wetlands in the basins and they can evaluate the users who get the best pressures and priorities in these wetlands. Therefore, it is the participation of the local management committee official in each of the wetlands to the Susurluk River Basin Management envisaged at this stage. In other words, the Uluabat Lake Wetland Local Management Committee official in the Susurluk basin can participate in the meeting as a Susurluk Basin Stakeholder. In this context, Uluabat Lake Wetland stakeholders should be identified first, and these stakeholders should include all relevant, affected and responsible stakeholders.

Within the scope of the wetland regulation, there are wetland local management committees. However, in order to achieve a successful consequence by using the mentioned method, these commissions should be developed to include all interest groups. Domain beneficiaries need more effective participation. The existing local wetland commissions for the Uluabat Lake Wetland are chaired by the provincial governor or deputy governor appointed by the governor, one of the representatives of the relevant institutions, the head of the provincial chamber of agriculture, the fisheries cooperatives, if any, from the relevant disciplines of hunting and shooting associations, provided that they are not from the same branch, two, with the participation of a representative of local non-governmental organizations operating on wetlands. However, the scope of area users in

the region is wider. For example, the participation of the Industrial Area representative, the mines representative and the other experts in the subjects needed are required. Therefore, in order to expand the local delegations to include all stakeholders, by contacting the General Directorate of Nature Conservation National Parks, the commission will be expanded within the desired scope and participation of a representative from this commission in river basin management meetings will be the most reasonable solution considering the current management forms and conditions in the country. The involvement of different sectors can lead to conflict situations. However, all stakeholders must participate in order for the decisions to be sociologically acceptable and applicable. Moreover, participation of appropriate stakeholders is very important in terms of setting priorities and making implementation decisions. Issues such as learning information, preparing materials, education, etc. are important stages without prioritizing. And these studies need to be done without prioritizing. The Uluabat Local Management Committee has been carrying out the work it carried out in the past within the scope of wetland management planning and the Wetlands Regulation, so they need to be informed about the critical path method and integrated river basin management. While the third phase of the critical path method, namely, making inventory, defining the functions and determining the status and trends, it is useful to inform the delegation with the trainings within the framework mentioned above. At the same time, the River Basin Management Board should be informed about the functions of wetlands and their role in river basin management. Thus, while determining Susurluk basin priorities and measures program, they can determine the role of wetlands in River Basin Management and evaluate the priorities more effectively.

3.3.3.Steps Inventory of Wetlands, Identification of Ecological and Hydrological Functions, Determination of Status and Tendencies

In order to determine and improve the role of wetlands in water resources management, the ecological and hydrological functions it provides must be defined and evaluated. By utilizing these features, they can be used to support the goals in the River Basin Management Plan. Defining ecological and hydrological functions can be accomplished in three stages: Detailed inventory of wetlands in each river basin and identification of these wetlands. Defining and measuring the functions that can play an important role in basin management. Determination of wetland status and trends. In this context, the Wetland Inventory in the Susurluk Basin should be taken primarily. Uluabat Lake Ramsar Area has been identified as an internationally important wetland. In this context, an inventory work was carried out and a management plan was prepared in 1996 to prepare a management plan in accordance with the Ramsar Agreement and its criteria. WWF Turkey's 2006 document published by the Ramsar Uluabat is located under the Wetland inventory work. Although these studies should be updated, general information about the field is useful. In addition, it is necessary to examine the functions of the wetland and these functions to include information on value analysis. The ecological and hydrological functions of the wetlands in the Susurluk basin should be determined after their inventory is identified. In their research, Gürlük ve Rehber (2006) determined the functions of Uluabat Lake Wetland as follows.

Table 1. Global, Regional and Local Benefits of Uluabat Lake

Global	Regional	Local
Carbon cycle in terrestrial mud	Recreational and other facilities	Fishery
Maintaining habitats	Maintaining microclimate	Agricultural Production
Historical and cultural importance	Important camp and bird watching area	Regulation of Water Flow
Endangered species such as Pelecanus Crispus and Aythya Nyroca are wintering and feeding areas	Improving air quality	Regulation of nutrient cycles stored in plants and soil
Supporting another important wetland, Manyas Wetland		Irrigation activities

(Gürlük and Rehber, 2006)

They have determined wetland functions globally, regionally and locally. These need to be further developed and supported by quantitative data. This research may not be precise, perfect and quantitative, but these evaluations will be examined in terms of the functions of the wetland, thereby increasing its role in river basin management. This initial functional assessment is necessary to see which needs, capacity and opportunities of wetlands will meet. With this evaluation research, the potential role of flood control, improving water quality, sediment retention, feeding groundwater resources, which are important for river basin, will be identified. For these evaluations, (Wetland Evaluation Technique (WET) and Functional Capacity Index or Functional Analysis of European Wetland Ecosystems (FAEWE)) and many other methods can be used. These methods include the following components. Data obtained from desk and field studies may contain functional evaluation data and many qualitative and quantitative data. Evaluation of the effects of functions and the acceptability of economic evaluations may include modeling and monitoring processes. Uluabat Lake is one of the areas that should be evaluated as a priority in Susurluk basin because it is determined as one of the points under pressure, but by determining its functions, a more effective prioritization and management work can be carried out. While determining the priorities and measures program at the preparation stage of the management plan, wetlands can be integrated into river basin management or wetlands can be integrated in the river basin in the early stages, even if river basin management plans such as Susurluk Basin have been completed.

3.3.4. Steps, Determination of Wetland Priorities at Basin Level

This phase is based on the determination of the appropriate priorities, determined by all stakeholders, covering all of the river basin scale wetlands. Participation of stakeholders is very important at this stage. In the Susurluk basin inventory research, the importance and status of the area and the wetlands classified according to their functions in accordance with their economic, social, cultural values, conservation status or sensitivity are also determined. Wetlands on the Ramsar List are areas of international importance. Uluabat Lake Wetland is also an internationally important wetland area, but is also an area with many functions. Therefore, a prioritization research should be carried out by the Uluabat Lake Local Commission depending

on the functions of the wetland within the scope of Susurluk River Basin or Uluabat Lake sub-basin. It can be ensured that the wetland area delegation, which will take place as a stakeholder in river basin management, is among the priorities to be made in river basin management by specifying the priorities of the wetland. Since Uluabat Lake is one of the areas under pressure from the point and spread source in the Susurluk River Basin, it must already be at the forefront in the prioritization phase, and its many functions may also increase the role of this area in river basin management. Many priorities have been identified in the River Basin Management Plan, while these are being revised. In the initial stages of river basin management, there may be disagreements between different stakeholders when ranking, and a priority assessment should be made on a basin basis to resolve this. This is one of the most critical stages, because the prioritization of implementation actions, the use of financial resources and water allocation will be made according to the priorities set at this stage.

3.3.5. Steps, Setting Quantitative Management Targets for Wetlands

This is a stage that requires the cooperation of responsible institutions and organizations as much as relevant stakeholders. At this stage, the priorities decided in step 4 will be transformed into practical, measurable, feasible and enforceable management goals. These targets should then be included in the business plans of the responsible institutions and organizations related to the area, water and environment, and documents with the use of water. Basically, there is the Uluabat Lake Ramsar Wetland Management Plan and this management plan was determined according to priorities when determining rational use-based management objectives. Management plan items (management objectives) are included in line with the determined priorities. However, these targets can be revised in this framework and revised. Priorities should also be highlighted in river basin management, because of the pressures on it, targets have been set for the protection of the Uluabat Lake Ramsar wetland. The fact that Uluabat Lake is one of the points under pressure in the Susurluk basin will enable it to be addressed as a priority issue.

3.3.6. Steps, Preparation of Water and Land Use Management Plan on Basin Basis

This stage is an important stage in which the sectoral planning and management process is carried out together. Basin-based area should be developed as a detailed plan that includes water, biodiversity and environmental management. Within the river basin management plan, for the wetlands that do not have a management plan within the framework of the critical road, measures can be determined within the river basin management plan and placed. In areas with a wetland management plan, such as the Ramsar area, the wetland management plan, whose objectives have been re-evaluated, can be integrated depending on the role of the wetland within the river basin management. Within this framework, the wetland management objectives reviewed within the scope of the critical path, measures should be included in the program. In addition, while making arrangements for water allocation and land use in river basin management plans, it must be made in a way that needs to be taken into consideration in order to ensure the sustainability of wetland functions.

3.3.7. Steps, Basin Basis Water Resource Management

Countries may have experience in wetland management or basin management, however the challenge at this stage is to ensure that both applications (at wetland and basin level) function in parallel. Temporal plans are often different depending on the sectors and goals. Different institutions may be responsible for the realization of each phase. Communication channels related to data, information, policies and problems may be closed all of these are the problems we encounter in carrying out a synchronized plan. To solve these problems, joint working groups including various institutions and interest groups can be created. In this context, the temporal synchronization problem can be solved with an official who will participate in river basin management from local wetland management. In addition, the presence of a representative of local wetland management will be beneficial in terms of evaluating the spatial management in the works related to area planning such as environmental plans, zoning plans. Thus, besides generating a solution to the temporal synchronization problem, the River Basin Management Plan will be implemented while the Ramsar wetland management plan will be implemented.

3.3.8. Steps, Separate Monitoring and Reporting on Basin and Wetland Basis

Sustainable adaptable ecosystem approach is in cycle form and usually this cycle is closed by the monitoring and reporting phase. A monitoring and reporting phase on basin and wetland basis is completely budget dependent. However, if we want the planning stage to be successful, we have to continue this stage by supporting it as much as the planning stage. Susurluk river basin management plan should be monitored and reported, Uluabat Lake Ramsar wetland should be monitored and reported separately.

3.3.9. Steps, Evaluation, Revised Plans and Priorities

An evaluation should be made as a consequence of monitoring the River Basin Management Plan, and it should be determined whether the benefit is obtained as a consequence of the evaluation. It is necessary to identify the deficiencies in the issues that do not provide benefits, and change the priorities for these deficiencies and revise the plans. Also, the prepared plans should be revised for 5 years depending on the developments.

Table 2. Integration Of Uluabat Lake Ramsar Wetland To Critical Path Approach To Susurluk RBM to Step By Step

1.Steps, Policy, Law and Institutional Content Are Prepared	2. Steps Design of the Stakeholder Cooperation Process	3.Steps Inventory of Wetlands, Identification of Ecological and Hydrological Functions, Determination of Status and Tendencies	4. Steps, Determination of Wetland Priorities at Basin Level	5. Steps, Setting Quantitative Management Targets for Wetlands	6. Steps, Preparation of Water and Land Use Management Plan on Basin Basis	7. Steps, Basin Basis Water Resource Management	8. Steps, Separate Monitoring and Reporting on Basin and Wetland Basis	9. Steps, Evaluation, Revised Plans and Priorities
(It should contain)								
National scale ➤ National wetland policies ➤ National environmental plans ➤ National biodiversity strategy ➤ International treaties and legal frameworks on wetlands	➤ Local wetland delegations are working. ➤ Should include all domain users.	➤ Inventory of wetlands in the Susurluk basin was taken ➤ Status and trends should be determined	➤ Wetland priorities are determined ➤ River basin priorities are determined	➤ Depending on the priorities (Wetland and river basin basis), practical, measurable, feasible, enforceable management objectives should be determined	➤ Depending on the objectives, the River Basin Management Plan and Wetland Management Plans are created.	➤ Both applications (at wetland and basin level) run parallel. ➤ Working groups involving various institutions and interest groups	➤ The monitoring and reporting phase is completely budget dependent.	➤ Evaluation should be done ➤ It should be determined whether the benefit is provided or not.
Local scale ➤ River basin management ➤ Integrated wetland management policies ➤ Local strategies or action plans	➤ Industrialists, miners, who are active in the region should be added	➤ Ecological and hydrological functions should be determined ➤ It should be determined whether the functions can be used cost effectively in River Basin Management.	➤ Representative of the wetland management committee joins the river basin management committee	➤ Compliance of these targets with the legal regulations	➤ Measures for water allocation and land use should be added to the river basin management plan.	➤ An official from the local wetland management joins RBM ➤ or a representative from RBM to the wetland delegation	➤ The success of the planning phase is directly related to the realization of this phase.	➤ Deficiencies should be identified in cases where benefits are not provided ➤ Plans should be revised by changing the priorities
Laws and policies	➤ Stakeholders should be trained	➤ Updating the inventory work to include functions	➤ Ensured that it is at the forefront among the priorities to be made in RBM		➤ Wetland needs should also be considered for a sustainable wetland management.	➤ a representative of local wetland and RBM in works related to area planning such as environmental plans, zoning plans	➤ The Susurluk RBMP and the revised Uluabat Lake WMP should be monitored and reported separately.	➤ Plans should be revised for 5 years depending on developments

4. CONCLUSION

In Turkey, this research aimed to draw the roadmap for the integration of wetlands into river basin management and management has been reached several implications regarding integration as mentioned above. In this context, Uluabat Lake Ramsar Wetland was chosen within the Susurluk Basin as a Sample Area. In the light of this information, making applications will be beneficial for the integration. In the first stages of Susurluk River Basin Management Plan, the Uluabat Lake, which is an exemplary wetland, is included in Susurluk River Basin Management in order to determine the functions of all wetlands in the basin by determining the functions of the wetlands in this basin and determining their functions by determining their functions. It can be started by executing as an integration with the “Critical Path” approach. The implementation of the Ramsar wetland management plan will provide great convenience in integration with the river basin management, it will ensure that the Wetland Management Plan, which includes measures to protect Lake Uluabat, is already included in the River basin management plan items, by updating the management objectives depending on the priorities. This work will be exemplary in terms of implementation and the experience gained in this basin can be used while integrating in other basins. In addition to this case research, while preparing each River Basin Management Plan, it is possible to take an inventory in the wetlands in the basin and determine their status and functions. “Critical Path” approach in Ramsar areas While the river basin management plan is being prepared, it can be carried out in parallel and cost effective solutions can be produced with the wetland functions in the measures program and they can be preserved at the river basin management scale.

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