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The Current Status of Fishing in Elazig

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Abstract

This study was conducted between 01.01.2013-31.12.2013 in order to determine the current status of fishery cooperatives which engaged in fishing of fishery products in Elazig. Research data was obtained through interviews with fifteen fishery cooperative presidents who engage in fishing activities in Keban, Kralkizi Dam Lake and Hazar Lake. The questionnaires used in the interviews was prepared taking into account the parcel areas of fisheries cooperatives, rental status, being active or not, and the number of fishermen and boats, the amount of annual and daily fishing, the amount of fishing nets, the number of caught days, caught fisheries species and theirs marketing situation of caught fishery products. In Karakaya Dam Lake, while the amount annual fishing has been determined as 95 tons per year, the daily fishing has been determined as 45 kg per day. The total amount of trammel net and simple fishing net was determined to be 35. 000 m. In Kralkizi Dam Lake, one fishery cooperative where there are 24 fishermen and 7 boats and one cooperative has also been identified as being non-active. The fishing in Hazar Lake was found to average 180-210 days per year. Moreover while the annual fishing has been determined as 20 tons per year, the daily fishing has been determined as 10 kg per day in Hazar Lake.

Keywords: Boat, dam lake, fisherman, fisheries cooperative, fishing

Elazığ'daki Balıkçılığın Mevcut Durumu

Özet

Bu çalışma, Elazığ ilinde su ürünleri avcılığı yapan balıkçılık kooperatiflerinin mevcut durumlarını belirlemek amacıyla 01.01.2013-31.12.2013 tarihleri arasında yapılmıştır. Araştırma verileri onbeş balıkçılık kooperatif başkanı ile görüşmeler yolu ile elde edilmiştir. Mülakatta kullanılan anket soruları, su ürünleri kooperatiflerinin parsel alanları,, kira durumları, faal olup olmamaları, balıkçı ve tekne sayıları, yıllık ve günlük av miktarları, ağ miktarı, avlanılan gün sayısı, avlanan su ürünleri türleri ve avlanan su ürünlerinin pazarlama durumları dikkate alınarak hazırlanmıştır. Karakaya Baraj Gölü'nde yıllık av miktarı 95 ton/yıl, günlük av miktarı ise 45 kg/gün olarak tespit edilmiştir. Toplam fanyalı ve sade ağ miktarının 35.000 m olduğu belirlenmiştir. Kralkızı Baraj Gölü'nde 1 adet su ürünleri kooperatifi ve bu kooperatife bağlı 24 balıkçı ve 7 tekne olduğu, 1 adet kooperatifin de faal olmadığı tespit edilmiştir. Hazar Gölü'nde ortalama avlanma süresi 180-210 gün/yıl olarak tespit edilmiştir. Ayrıca Hazar Gölü'nde yıllık av miktarı 20 ton/yıl, günlük av miktarı ise 10 kg/gün olarak tespit edilmiştir.

Anahtar Kelimeler: Tekne, baraj gölü, balıkçı, su ürünleri kooperatifi, avcılık

INTRODUCTION

Today when our world is experiencing nutritional problems, it is necessary to benefit from aquaculture stock economically. Since ancient time, fishing is the main source that provides food and job opportunities for people and dealing with this activity supplies economic benefits. Fisheries resources are renewable resources although they are not infinite. For take required extent advantage from fisheries resources, you must conserve and develop resources. Appropriate and sustainable use of fisheries resources as a food source is possible with fishing activities carried out in a conscious way and planned for the future. Fishing has a certain impact on ecosystems and people as well as other agricultural activities. It is important that the supply of fishing sector's continuation without destructive effects to the global employment, providing animal protein and ecosystem and with friendly way to environmental. Human-induced changes in the ecosystem including fishing caused changes are endangering the welfare of all present and future generations (Secer et al., 2010).

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The effectiveness of policies to be applied and measures to be taken in the fisheries sector is optional to known all aspects of this activity field and to be determined the situation of sector through with on-site inspection. Considering the size of fishing places and the number of persons who live on fishing, studies are needed relevant collection of all kinds of current data of fishing and the current situation of fisheries cooperative which operate in Keban, Karakaya and Kralkizi Dam Lakes and Hazar Lake.

MATERIALS AND METHODS

This study was conducted between 01.01.2013-31.12.2013 in order to determine the current status of fishery cooperatives which engaged in fishing in Elazig. In this study, questionnaires were prepared considering operating status of fisheries cooperatives, name and address, the organization dates, fishing places, fishing parcel number, lease status, the number of fishermen that the member of cooperatives and the number of boats, the amount of fishing annual and daily, quantity of net used in the fishing, the number of caught days, the species of caught fisheries and marketing state were organized.

The prepared questionnaires were filled by going the cooperatives activities in Elazig province, Keban, Karakaya and Kralkizi Dam Lakes and Hazar Lake and the questions were asked to the head of the cooperatives face to face. As a result of field research, the data concerning fisheries cooperatives operating in Keban, Karakaya and Kralkizi Dam Lakes and Hazar Lake, were obtained.

RESULTS

The Number of Cooperative and Parcel Area

15 fisheries cooperatives are present in Elazig province, Keban, Karakaya, Kralkizi Dam Lakes and Hazar Lake, they made fishing in an area 52.450 ha, have been identified (Table 1).

Table 1. The number of fisheries cooperatives and distribution of parcel area

Province	Water Supply	Number of Cooperatives	Parcel Area (Hectar)
Elazig	Keban Dam Lake	11	30.530
	Karakaya Dam Lake	2	12.400
	Kralkizi Dam Lake	1	920
	Hazar Lake	1	8.600
TOTAL		**15**	**52.450**

The Activity and Rent Status

In Elazig province, Keban, Karakaya and Kralkizi Dam Lakes and Hazar Lake, has been found that 9 cooperatives operating active, 5 of them were semi-active and one of the cooperative was not active. Nine fishing places rented by cooperative, 5 of them rented by indivudals and one place is not rented (Table 2).

The Number of Fishermen and Boats

272 fishermen connected to the 15 cooperatives and with 167 boats they make fishing in Elazig province, Keban, Karakaya and Kralkizi Dam Lakes and Hazar Lake, have been identified (Table 3).

Table 2. The distribution of activities and rental status of fisheries cooperatives

Province	Water Supply	Number of Coop.	Activity Status			Rental Status		
			Active	Half Active	Not Active	Coop.	Individual	Not Rented
Elazig	Keban Dam Lake	11	9	2	-	9	2	-
	Karakaya Dam Lake	2	-	2	-	-	2	-
	Kralkizi Dam Lake	1	-	-	1	-	-	1
	Hazar Lake	1	-	1	-	-	1	-
TOTAL		**15**	**9**	**5**	**1**	**9**	**5**	**1**

Table 3. The distribution of fishermen number and boats of fisheries cooperatives

Province	Water Supply	Number of Cooperatives	Number of Fishermen	Number of Boats
Elazig	Keban Dam Lake	11	214	126
	Karakaya Dam Lake	2	24	24
	Kralkizi Dam Lake	1	24	7
	Hazar Lake	1	10	10
TOTAL		**15**	**272**	**167**

Caught Fish Species

Fish species have been identified as *Capoeta trutta*, *Capoeta umbla*, *Oncorhynchus mykiss*, *Acanthobrama marmid*, *Cyprinus carpio carpio*, *Carassius gibelio* ve *Carassius carassiu*, *Squalius cephalus*, *Mastacembelus mastacembelus*, *Cyprinion macrostomus*, *Chondrostoma regium*, *Barbus lacerta*, *Barbus subquincuncinatus*, *Barbus mystaceus*, *Luciobarbus xanthopterus*, *Luciobarbus esocinus*, *Barbus gyprus*, *Alburnus mossulensis*, *Salmo trutta macrostigma*, *Mystus pelusius* ve *Astacus leptodactylus*, hunted from 15 fisheries cooperatives in Elazig province, Keban, Karakaya and Kralkizi Dam Lakes and Hazar Lake.

The Amount of Fishing Yearly and Daily

In Elazig province, Keban, Karakaya and Kralkizi Dam Lakes and Hazar Lake, the total amount of fish caught by 15 cooperative was 450 tons/year, daily catches 260 kg/day and amounts of crayfish was 10 tons/year and 385 kg/weekly have been identified (Table 4).

The Number of Fishing Day and Status of Marketing

In Elazig province, Keban, Karakaya and Kralkizi Dam Lakes and Hazar Lake, the number of fishing day, by 15 cooperatives ranged from 120 to 180 was determined. Caught Fish species were purchased by middlemen and brokers and marketing to Diyarbakir, Sirnak, Batman and the surrounding provinces as retail (Table 5).

The Amount of Net

It has been identified, the net of 15 cooperatives used in fishing in Elazig province, Keban, Karakaya and Kralkizi Dam Lakes and Hazar Lake was 317.000 m and 25.000 units pints (Table 6).

Table 4. The distribution of amount of yearly and daily fishing of fisheries cooperatives

Province	Water Supply	Number of Boats	Amount of Fishing Yearly (tons/year)		Amount of Fishing Daily	
			Fishing Amount	Crayfish Amount	Fishing Amount (kg/day)	Crayfish Amount (kg/week)
Elazig	Keban Dam Lake	126	325	10	190	385
	Karakaya Dam Lake	24	95		45	
	Kralkizi Dam Lake	7	10		15	
	Hazar Lake	10	20		10	
TOTAL		**167**	**450**	**10**	**260**	**385**

Table 5. The distribution of marketing status and number of fishing days of fisheries cooperatives

Province	Water Supply	Number of Cooperatives	Number of Fishing Days	Marketing
Elazig	Keban Dam Lake	11	120-180	Middlemen / Brokers
	Karakaya Dam Lake	2	120-180	Middlemen / Brokers
	Kralkizi Dam Lake	1	120-150	Middlemen / Brokers
	Hazar Lake	1	120-180	Retail
TOTAL		**15**	**-**	**-**

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Table 6. The distribution of net amount of fisheries cooperative

Province	Water Supply	Number of Cooperatives	Amount of Net (m)		Amount of Pints (unit)
			Trammel	Simple	
Elazig	Keban Dam Lake	11	110.000	159.000	25.000
	Karakaya Dam Lake	2	15.000	20.000	
	Kralkizi Dam Lake	1	3.000	4.000	
	Hazar Lake	1	2.000	4.000	
TOTAL		**15**	**130.000**	**187.000**	
GENERAL TOTAL			**317.000**		**25.000**

CONCLUSION

In developing countries, fishermen see their livelihoods in endangered. Fishermen were organized under the general fishing cooperatives but these cooperatives could not act in the line with their organizational goals and they were not properly managed. Fisheries cooperatives has not reached the desired activity since the 1940s because of the unfair competition, lack of support and encouragement, lack of cooperative education and solidarity, mismanagement and wrong planning during foundation the stage of cooperative. However, cooperatives is seen as one of the most appropriate tools to eliminate the problems as well as sustaining fish stocks and fishing communities. Turkey fishermen and fish resource's future in one aspect depends on the success of fisheries cooperatives. Therefore, fishermen must explore cooperative shield as soon as possible and learn to use it effectively for saving themselves from exploitation and fix their socio-economic conditions (Secer et al., 2010).

All cooperatives in Elazig were founded for Cooperative Law no 1163. In some cooperatives, the majority of them were not fishermen but sufficient number of the members is required for the establishment of fisheries cooperatives, the person who was not engage in fishing was also a member. In order to prevent this situation, one of the terms/conditions of being a cooperative member must get fishing license. People who take new license, after attend the course organized by the Ministry of Food, Agriculture and Livestock without prejudice to this day, the license granted the right of the owners, license permit should be given after take education within a certain plan.

In the study of Celayir et al. (2003), first fishing activities were began in 1976-1977 in Keban Dam Lake. Initially, the reservoir divided into 8 individual fishing areas and rented for 2 years. In 1980, the number of cooperatives around the reservoir rose to 13, in the same year the reservoir is divided into 14 fishing places taking into account the situation of cooperatives and residential centers. Between the years of 1997-2000 with the latest regulations, in the reservoir 16 cooperatives were operating in the 16 fishing places. In the dam lake, 306 fishermen registered to 16 cooperatives and 217 units engine boats have been identified.

Ural et al. (2009) identified that totally 50 fisheries cooperatives in the East and Southeast Anatolia Region, depended to these cooperatives, 1586 fishermen and the number of boats are 654. However, in 2003, there were 15 fisheries cooperatives in Elazig and it was determined that the number of fishermen depending of cooperative was 306 and the number of boats was 206. 13 fisheries cooperatives of 15 fisheries cooperatives were active, 2 of them were semi-active and 12 fishing places rented by cooperatives, 3 fishing places rented by the individuals.

For refocusing legal-administrative regulations of the fisheries cooperatives and strengthening, fishing awareness must be developed, training programs must be prepared and through strengthening of fishing cooperative, the medium that give opportunities to fish marketing must be prepared. Careful decisions about fishing regulations and banning should be taken and provide applicability and following. Sailing prohibition fishing gear partially or completely should be banned, lawful fishing activities should be carried out, with doing the fishermen job description, should be given a professional status, income-generating opportunities should be provided to fishermen in the ban period, the support and encouragement for fuel and fishing tools should be given by the government.

In a large part of the cooperative that this study was made in, the records of cooperative's member, fishing data, the records belong to boat and fishing tools were not kept. To create fisheries statistics in

territorial basis, and obtain reliable data, records belong to fisheries cooperatives and fishing by fishermen in the area, cooperatives' information needs to keep on a regular and should be created this awareness. Therefore, in fisheries cooperatives, for develop the correct data system, Aquaculture Engineers should be assigned.

All agencies in the fisheries sector with coming together should work in cooperation and fishermen issues must be identified and solutions must be investigated. It was identified that there was not a cooperative building where available cooperative's members can be collected together, decisions will be taken and the information will be shared in Elazig. With landing points after fishing is determined by cooperative there was not structures form of fishing ports. Landings taken by middlemen from the landing points and were presented to the market. In fishing, the biggest problem was marketing and the products could not be marketed in appropriate conditions and prices. The relationship should be organized with fishing trades and brokers (middlemen).

For the reason of the cooperatives and cooperative unions were powerless, fishermen entered into preliminary agreement with middlemen, get into dept and realistic price formation is prevented. Big difference between cooperative price and free market was the most important indicator that the amount of the consumer's paid was not reflect to the producer. Fishermen could not fulfill their labor costs and they had problems for payment of the rental fee in the fishing places. Therefore the present cooperatives must be structured under "Fisheries Cooperative Association". In this way, the knowledge, tools and equipment which fishermens' need, can be provided. With changes about marketing of fisheries cooperative associations, in the region over-fishing can also prevent and with the establishment of cooperative associations, removing intermediaries between producers and consumers, the fishermen will be able to provide their products to market. As a result, fishing is the employment door for fishermen who practice fishing in Elazig.

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