

**PARTICIPATION OF AGRICULTURAL EXTENSION SERVICES IN THE FIELD OF FISH-FARMS PRACTICES IN MIDDLE PROVINCES OF IRAQ**

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**ABSTRACT**

The objective of this to determine the level of Agricultural Extension services provided to fish farmers in middle provinces of Iraq. A sample of 50% of the middle province was chosen. These provinces were Wasit, Babelon, Dewaniah and Najaf. The study also included a randomized sample of 95 of the fish farmers (keepers) from the above mentioned provinces. A scale of five grades was developed to measure the level of Agricultural Extension services presented to the farmers. The scale was consisted of 26 items distributed on five domains, that were environmental extension, nutrition, culturing, fishing and marketing. The study revealed a weak participation of extension in the field of fish-farms. The statistical analysis indicated that the level of extension participation was 42.2 out of 104 degree which represents the maximum attainable degree.

**Key word:** Extension services, Fish farms, Fish breeders, Environmental extension, Fish nutrition.

ناجي

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مساهمة الإرشاد الزراعي في عمليات خدمة المزارع السمكية في بعض المحافظات الوسطى

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المستخلص

استهدف البحث تحديد مستوى المساهمة الارشادية الزراعية في عمليات خدمة المزارع السمكية، واختيرت محافظات المنطقة الوسطى منطقة إجراء البحث وبنسبة 50% من المحافظات وهي (واسط وبابل والديوانية والنجف) وتكونت عينة البحث من (95) مربيًا للأسماك في المزارع السمكية في تلك المحافظات. استخدم مقياس خماسي لقياس المساهمة الارشادية مكون من العبارات: (مساهمة فاعلة جدا ومساهمة فاعلة ومساهمة متوسطة ومساهمة قليلة ومساهمة غير فاعلة) وتضمن المقياس (26) فقرة موزعة على (5) محاور هي: (الارشاد البيئي والتغذية والاستزراع والصيد والتسويق). خلص البحث إلى ضعف المساهمة الارشادية بشكل عام في عمليات خدمة المزارع السمكية. إذ بلغ معدل المساهمة الارشادية 42.2 درجة على مقياس درجته العليا 104 درجة والصغرى صفر.

كلمات مفتاحية: الخدمات الارشادية، المزارع السمكية، مربي الاسماك، الارشاد البيئي، تغذية الاسماك.

## INTRODUCTION

In past time, fish consider as richness food of protein, when they searching about coastal civilization they found a huge number of mussels with fish bones which approve that ancient man use fish production in food, thus ancient Egyptian people used to dry and salt fish under sun warm in order to be available most time of the year. (1). Also Chinese people has along history in breeding fish inside ponds, yet fish consider richness with protein, it contains soft digesting protein between 18%-22% percent with necessary monoacid incapable generating inside human body, especially Laysen founded in high percent to become an objective material in supporting food, carbohydrate which leak in protein, in addition it contains another important material like vitamins as A, B, D also elements like calcium, phosphor, iron iodine, florien. (2). In Fact, fish food assists to low infection with many diseases like hart disease, thyroid gland and some kind of blind. Fish powder used in poultry forage and Iraqi people prefer to eat fish as public social food (4). World static for fish product for fish products refer that fish is an important source to supply world needs animal's protein and reaches to one fourth; thus most countries consider fishing manufacture is important source to ensure jobs opportunist and foreign revenue. Currently FAO states reports facing high decrease in animal protein reaches twenty two for since 2000 (5). In exchange for high increase in population world reaches more than billion person (6). Thus an intestine necessary efforts approve by national and Arabic organization to have advantage from fish stock in regional interior water (7). Iraq is one of Arabic countries which has different prosperous to expand in fish production. In interior water there are two rivers (Tigras and Euphrates) With there branches and tributaries are an appropriate environment for breeding local fish (8). In Iraqi interior water living an important economic fish like, *Barbus grypus*, *Barbus xanthopterus*, *Barbus sharpeyi*, *Barabus esocinus*, *Brabus Luteus*, *Aspius Vorax*, *Cuprinus Carpio*. In recent last year, normal carb fish lives there thus Iraqi consumer has a traditional customs which encourage people to eat this kind of fish (9). In

culturing fish area Iraq climate is an optimal environment to multiple fish breeding due to convenient temperature degree to grow fish between 9-8 month yearly, this feature is rarely available in different area of the world, for instant in most European countries due to low temperature of these area normal carb fish breeding variety grow maturing stage between 2-3 year, but in Iraq this kind of fish grow mature phase through one year only then after few months their weigh become ready for marketing (10). States reports refers that fish farmer in Iraq reach 1893 farm and water area reach 30200 donem through 2001 in spite of available resource like convenient climate, water, land preparing for fish farmer, but fish farmer productions become very low comparing with Arab countries. Generally fish production become 3200 Ton in 2001 (11). This due to many factors, one of them fish farmer is out of work and even the operative fish farmer factor is not work with (design operation), yet weakness extension and recommendation in presentation services to the fish breeding in their farmer in addition agriculture programmer and board casting activity about fish farmer is absent, bulletin and training course which has an objective role to develop fish farmer skills as necessary information in their breeding fish. Also extension activity is rare which relate dissemination modern technical research fish culture clarify many research inquires as below:

1. What is the extension participation level in presentation services to the fish farmer?
2. What is the extension range participation of fish breeding in presentation services as (environment extension, nutrition, culturing, fishing marketing).
3. What is the favorite extension participation type by the fish breeding?
4. What is the extension participation strict fish breeding to present services for farmer fish.

### Research goals:

1. To determine the extension participation level for fish breeding to present fish farmer services.
2. To determine the average of extension participation fish breeding in presentation type

services as environmental extension, nutrition, culturing, fishing, and marketing.

3. To recognize favorite type of extension participation by fish breeding .

4. To recognize extension participation restriction of fish breeding to present fish farmer services

**Procedures definitions:** Farmer fish services, is define a presentation extension services to the fish farmer via equipments and recommendation in nutrition field, culturing, combat protection disease, fishing, and marketing. Environmental extension, is the recommendation in extension participate to provide service as pesticide, combating reeds in fish farmer, industrial waste of factors, waste of industrial poultry and fish nutrition.

**MATERIALS AND METHODS**

**Research Zone**

Middle provinces of Iraq were chosen as sample to practice our search exclusively in province which had establish fish farmer and become productivity at the recent time , these province are Baghdad\*, Salah Al-Dein, Dayla, Wasit, Babylon and Najaf. then we choose in 50% percentage from these province to be four province as Wasit, Babylon, Diwania and Najaf.

**\*General State of Fish Resource, Ministry, of Agriculture 2006.**

**Research Society**

Research includes the productivity fish farmer breeding only at recent time and number reach (484) of fish breeding distributed over search province.

**Research Sample**

We choose random sample in 50% by stratified proportionate random method. to have 95 fish breeding of the fish farmer as clarify in Table 1.

**Table 1. Research Sample Distribution**

No.	Province	Total no. of fish farmer	Sample size
1.	Wasit	89	45
2.	Babylon	68	34
3.	Diwania	10	5
4.	Najaf	21	11
	<b>Total</b>	<b>188</b>	<b>95</b>

**Scale design participation**

Scale design participation was passed in two stages:

1. First stage: preparing stander participation with many types services of fish presentation as :

-magazines and extension bulletin which relate fish farmer services.

-opinions of specialist groups in fish resources extension agriculture \*\* because we consider exports an important basic to built these standers. The slander of (26) items distribution on (5) field ( environment extension, nutrition, culturing, fishing, marketing).

**Second stage - Scale measuring:** Weigh indicated as stander levels (very effective participation, effective participation, medium participation, ineffective participation as sequence (0, 1, 2 , 3, 4).

**Means of collecting Questionnaire**

Collecting questionnaire from fish breeding via from questionnaire prepared by researcher. containing many items which has relate axis extension participation in fish farmer services.

1. Prof. D. Research , General state of date palm division . Ministry of Agriculture 2006.

2. Tagreed Sadiq Al- Ubaydei . Lecture, Animal resources, college of Agriculture, Baghdad university.

3. Abid Al- khaliq Abid Al-Fatah, Lecture, Animal resources, college of Agriculture, Baghdad university.

4. Mohmad Enad, Lecture, Animal resources, college of Agriculture , Baghdad university.

5. Nedal Tahsee, Lecture, Animal resources, college of Agriculture, Basrah university.

**Validity of scale**

The approved superficial standardization test display in front five specialist of extension to confirm approved super facials standardization. While the specialist of animal confirm Content Validity measurement.

**Pre - test**

The pre – test in august (2006) on sample of (25) fish breeding in Baghdad provinces.

**Constancy scale and Reliability**

Validity and constancy standard participation test was used (oc) method ( Alfacronic )to have value of 0.83.

**Data Collection**

Questionnaire collection through 2013 period by direct interview.

**Statistics means**

All data analysis by using static's means as bellow: Frequency, percentage, means, cronbach .(12) .

**Results display with discussion**

1. Determine extension participation level bre-

eding in fish former services. All the Digital values which refers extension participation between 0-104 degree, the average 42.2 degree, thus all the fish breeding level (52) participation extension presentation were less of middle scale degree and all the samples distributed in five categories.

**Table 2. Distribution of fish breeding within extension participation degree**

category	No.	percentage	The average of participation
30-20	32	33.7	36.7
41-31	24	25.3	41.3
52-42	21	22	45.2
63-53	11	11.6	47.8
74-64	7	7.4	52.7
<b>Total</b>	<b>95</b>	<b>100</b>	<b>42.2</b>

We can Conclude, all the fish breeding their participation is weak that attributed to the decrease of extension activity in fish breeding. 2. Determine extension participation for fish breeding in fish service environmental extension, Nutrition) Culturing , Fishing, Marketing. (Mean value of extension participation in service field total degree 42.2 .Highest mean value in fishing field T.d 15.6 sequence culture field T.d 10.5 sequence with marketing field 5.3 finally the less value in environmental extension (4.2) degree as table (3) bellow:

**Table 3. distribution extension participation in fish extension**

Direction	The average of extension participation
Fishing	15.6
Culturing	10.5
Nutrition	6.5
Marketing	5.3
Environmental extension	4.2

general we conclude that extension participating mean in fish service degree to depend upon, so this attributed field is less of the middle of scale degree To de centralization at fish resource field with in extension activity which implementation by (general state of extension) in addition scarcity of specialist staff.

3. To recognize on different favorite extension participation by fish breeding.

Above table clarify that most of quarter fish breeding prefer extension participation through bulletin while 20% percent of them prefer extension participation through farm participation, while 14% percent samples prefer extension participation through extension symposium and 18% percent prefer extension participation through training courses and 6% percent prefer extension participation through extension T.V program, also 4% percent of them prefer extension participation through extension symposium breed casting program and 8% of them prefer extension participation through daily local news. 4. To recognize on extension restriction of fish breeding at fish farmer.

**Table 4. distribution the favorite extension participation by fish breeding**

Types of extension participation	No.	%
1. extension bulletin in fish resources	25	26.3
2. Vistsuper fish farmer (typical)	20	21.2
3. extension symposium in fish resources	14	14.7
4. Training courses for fish breeding	18	18.9
5. T.V program in extension	6	6.3
6. broad casting program in extension	4	4.2
7. Give advices through daily news for fish breeding	8	8.4
	<b>95</b>	<b>100</b>

**Table 5. fish breeding distribution within Extension Participation**

Extension participation restriction	Yes		No	
	No.	%	No	%
1. shortage specialist staff	80	84.2	15	15.8
2. shortage in variety of extension activity in fish Fish resource field	17	74.7		
3. weakness available of extension activity which has relatively with fish resources	95	100	....	....
4. weakness of co-ordinate between general state of co-operation and general of fish resources	78	82	11	11.6
5. trustable resources not available ( small fish carb)	84	82	11	11.6
6. scarcity of available experience employee in fish service field	68	71.6	27	28.4
7. weakness of training course in fish services	90	94.7	5	5.3

As we notice from the table No. 5 that highest percentage from extension participation restricts as breeding opinion %100 with weakness available of extension activity item , and the lowest percentage in extension participation restriction 71.6 for the scar city of available experience employee while the percentage of the rest item for extension participation restrictions between 100 – 71.6, this high scope percentage ensure that many restrictions has effected in extension operation in general way and exclusively in extension participation fish service.

### Conclusions

1. Conclusion as bellow weakness in presentation of extension participation fish resources services in general them, shortage of due to many striction one of specialist staff in fish resources, thin reflect the weakness and shortage extension activates which has relation ship with fish resources services .

2. There are many types of favorite extension participation by fish breeding one of them extension bulletin and extension visits the fish farmer.

### Recommendations

1. To work on objective and activate extension participate in presentation fish resources service through employ specialist staff in order to defeat extension participation restricted.

2. To be sure of necessary extension activity which has relation ship with fish resources as training courses and extension visits to the fish farmer.

3. Ministry of Agriculture is responsible to available equipments and specialist staff to practice their extension activity, which has relationship with fish resources.

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