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**The Effect of Cesspits on Water Springs Pollution of Natuv
Catchment – West of Ramallah, Palestine**

2011

**The Effect of Cesspits on Water Springs Pollution of Natuv Catchment
– West of Ramallah, Palestine**

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24		3.2.1.3
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33		2.5.3
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35		2.6.3
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22	.2009-2007	1
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92	.2005،2011 -2003 -	37
93	.2005،2011 -2003 -	38

(100)

SPSS

%43

%48

Abstract

The Purpose of this study is to determine the impact of the cesspits on the contamination of the water springs in the study area, the type of concentration of the pollutants in it, studying the Sosial and economical impact of Israeli settlements on polluting these springs.

This study includes 100 questionairs that were distributed among the owners of springs, and analysed through SPSS. Also samples were taken from water springs inorder to be examined and analyzed.

The result of analysis shows that there are two basic problems associated with contaminat from cesspits and solid wastes, and the shortage of the discharge of springs due to the fluctuation of the rainfull.

The Result also Shows that the setting has adirect impact on polluting water springs, in which 43% of the springs closed to the settlements were contaminated from wast water, prodused from settlements.

From physical chemical and Biological tests on that the Properties of samples varying from one spring to another, since there are springs with high quality of water suitable for drinking porposes like Ein Eltweseh in Beitello and Ein jenan in Jamala.

On other hand; there are some springs with high percent of nitrate and colony Bacteria polluted with waste water from cesspits that leaks from it and arrived to the ground water like Ein Qenia.

The type of the water springs in the study area is calcium biocarbonate, and this suits with the Rocky nature of the area that consists from limestone and Dolomite.

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Shalash and) .(2007

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.(Ghanem, 2007

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Shalash and Ghanem,)

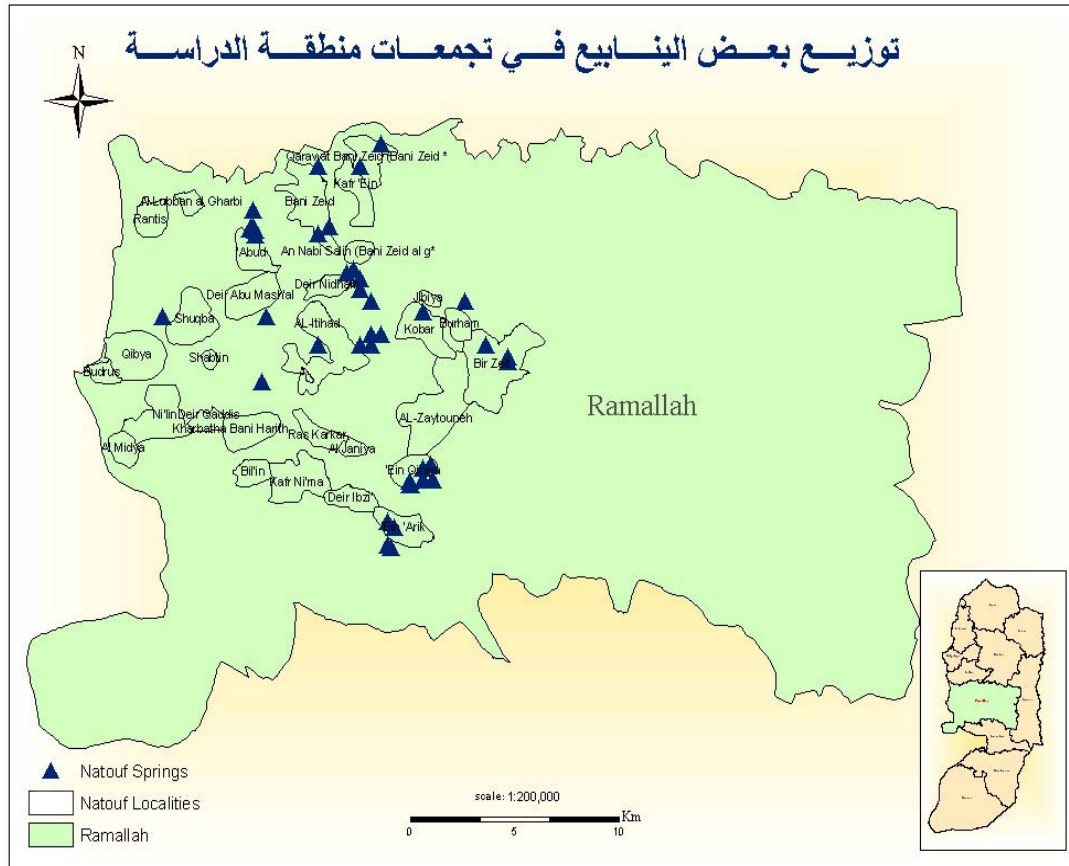
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منهجية الدراسة

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SPSS

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SPSS

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2011/6/28

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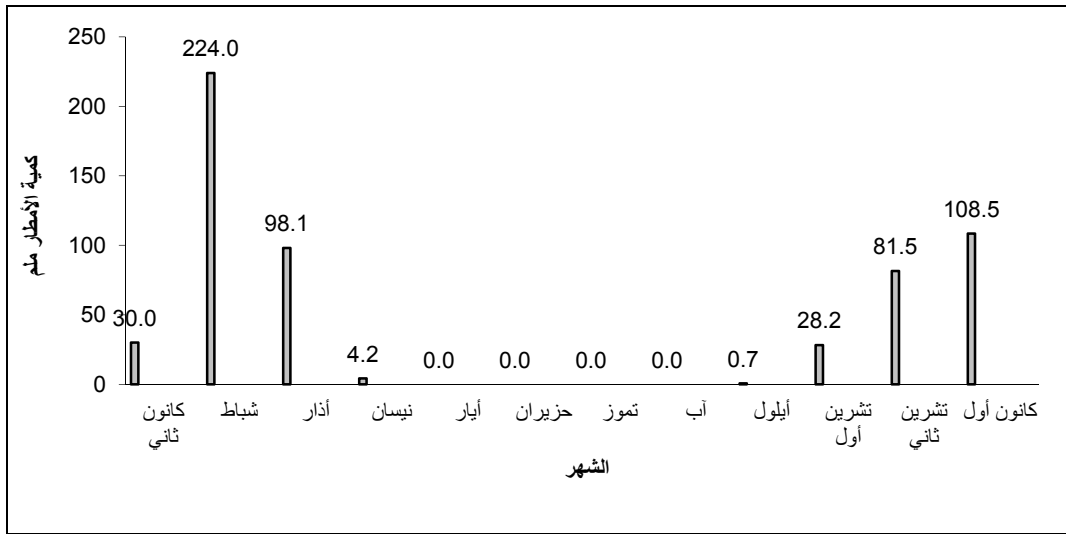
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(1)

2009

(1)



2009

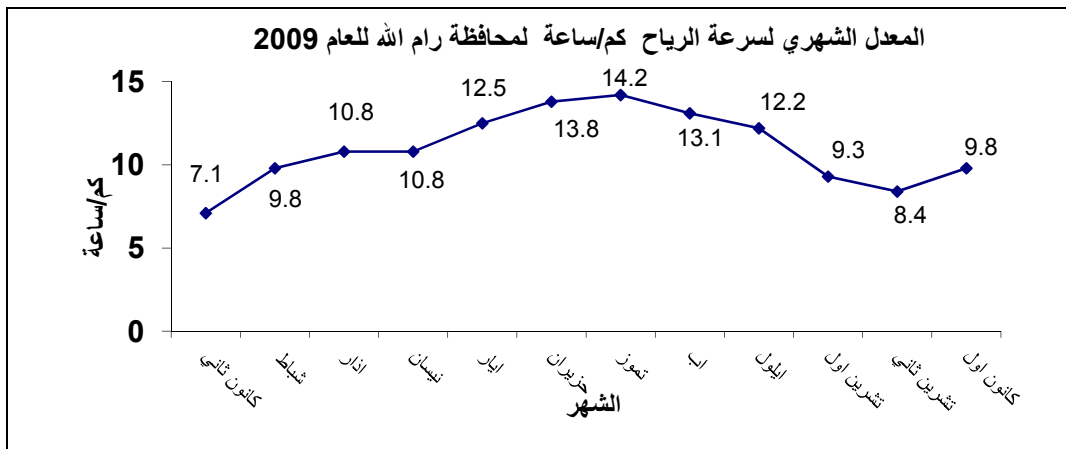
3.2.1.3

2009

(2)

2009

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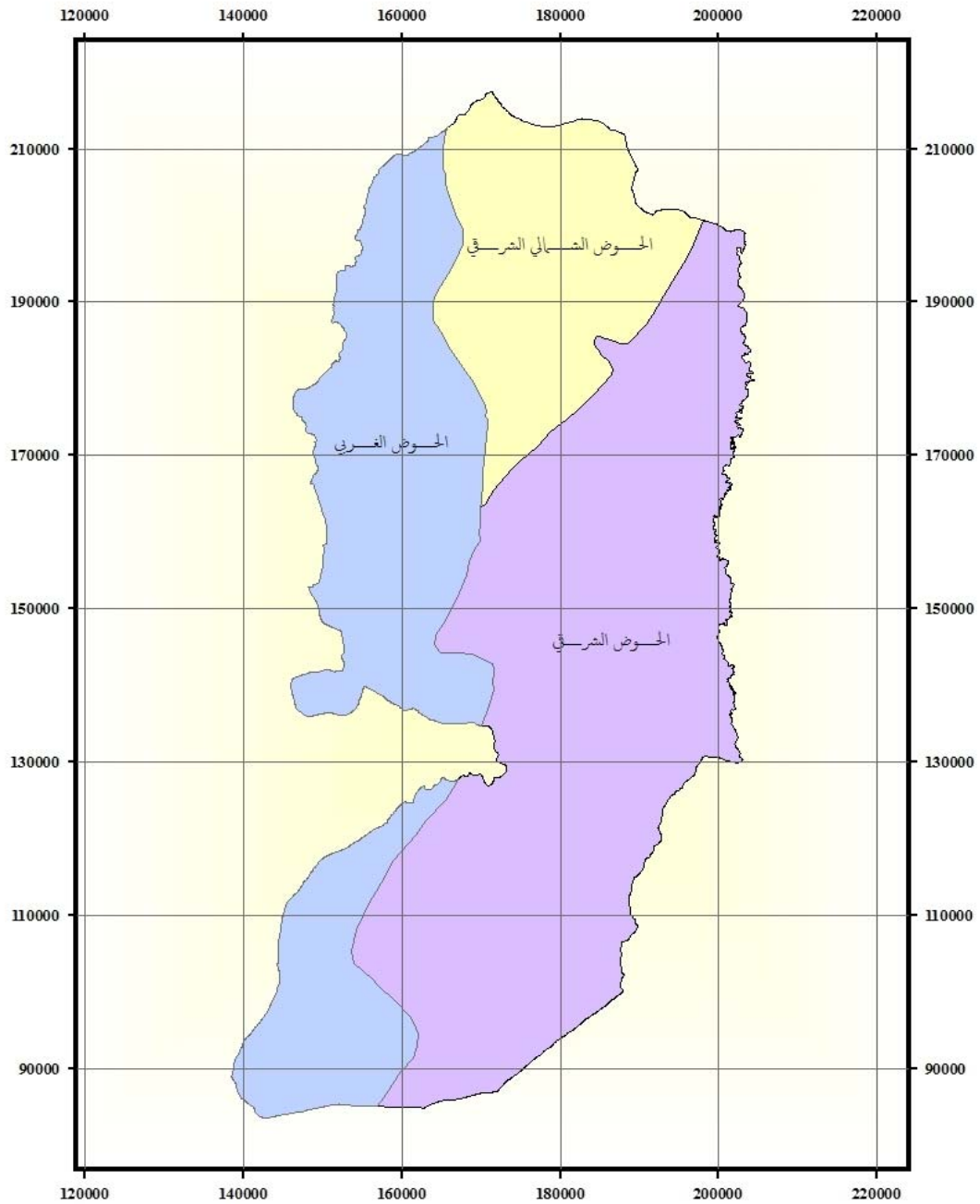
58

25

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المصدر: سلطة المياه، 2011.

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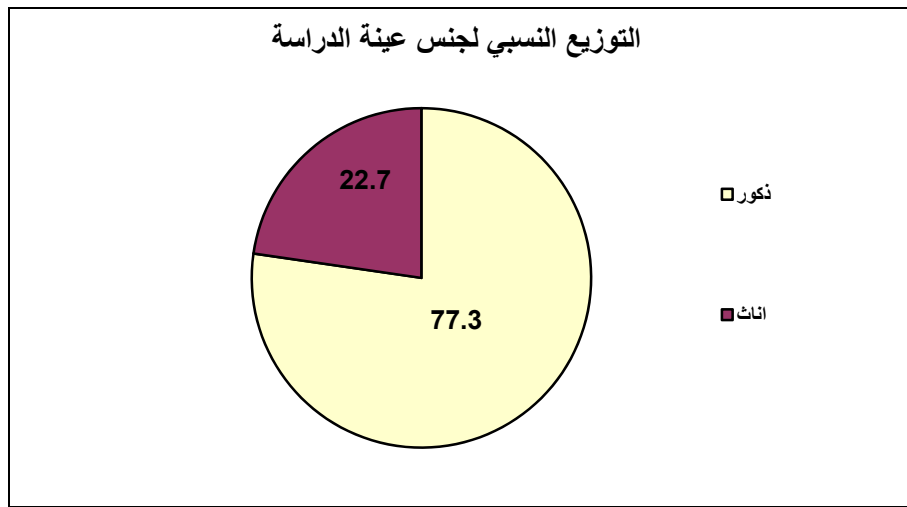
1.1.2.4

. %22.3

%77.3

(3)

:(3)



2.1.2.4

45

%48

45-30

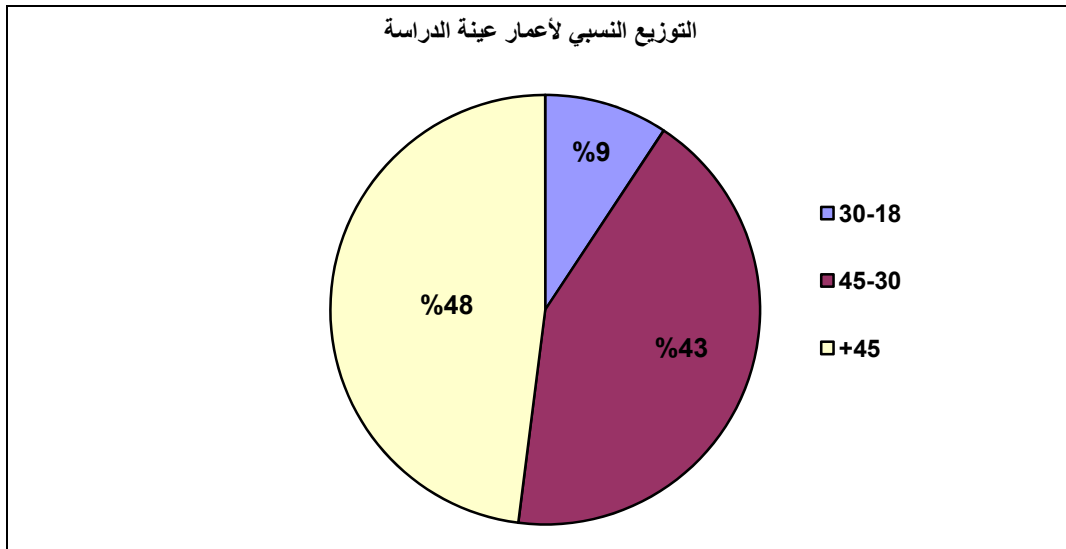
%42.7

%9.3

30-18

(4)

:(4)



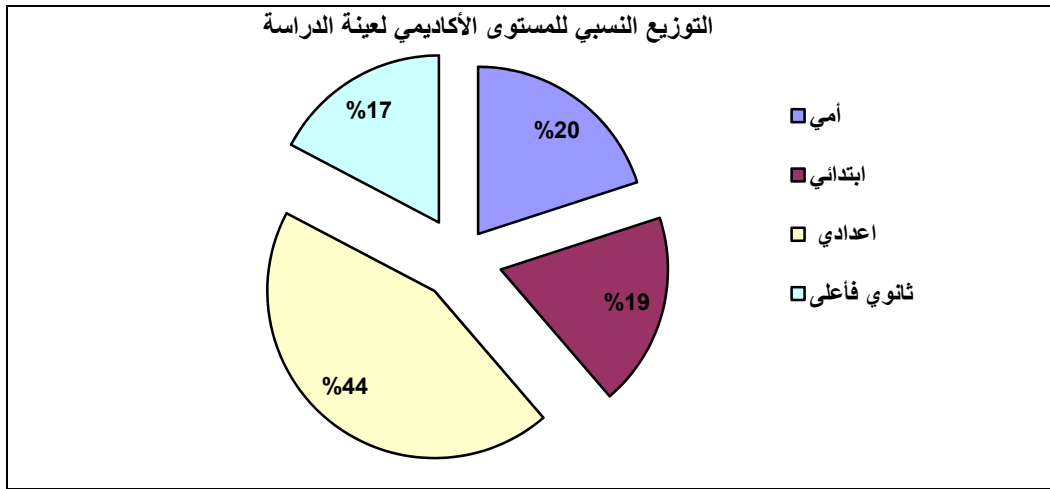
3.1.2.4

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%82.7

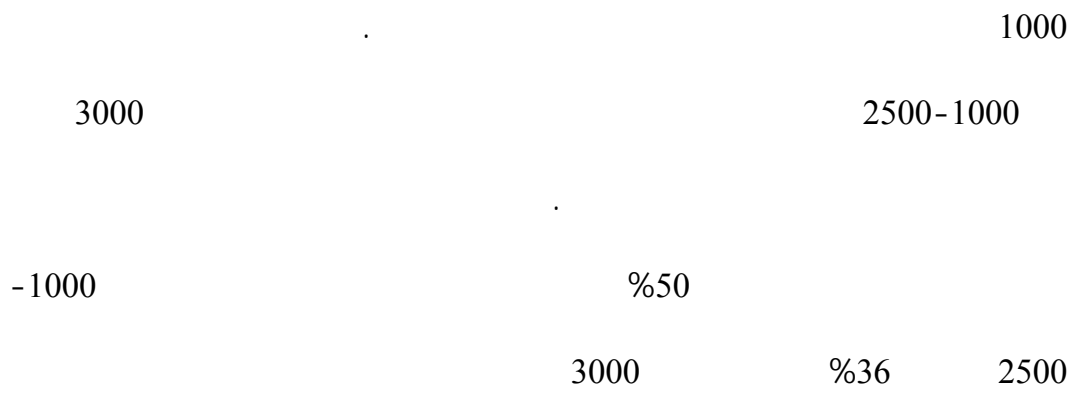
(5)

:(5)



2.2.4

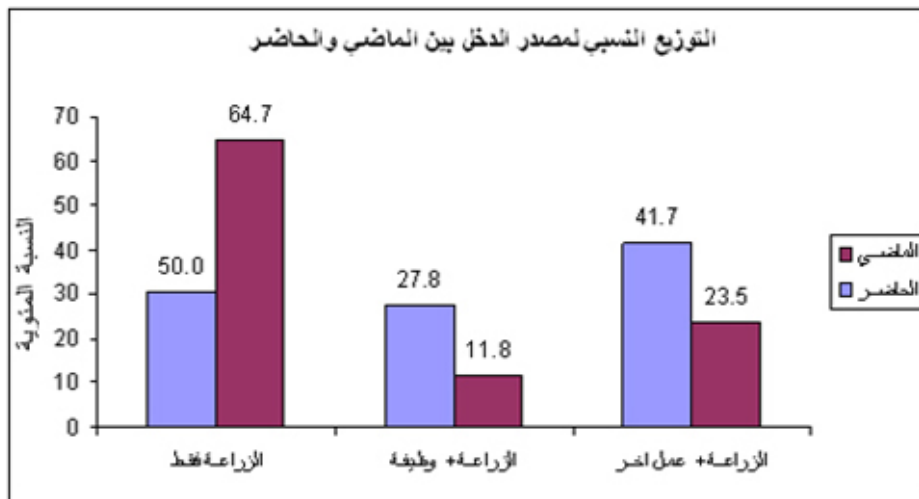
1.2.2.4



2.2.2.4

(6)

:(6)



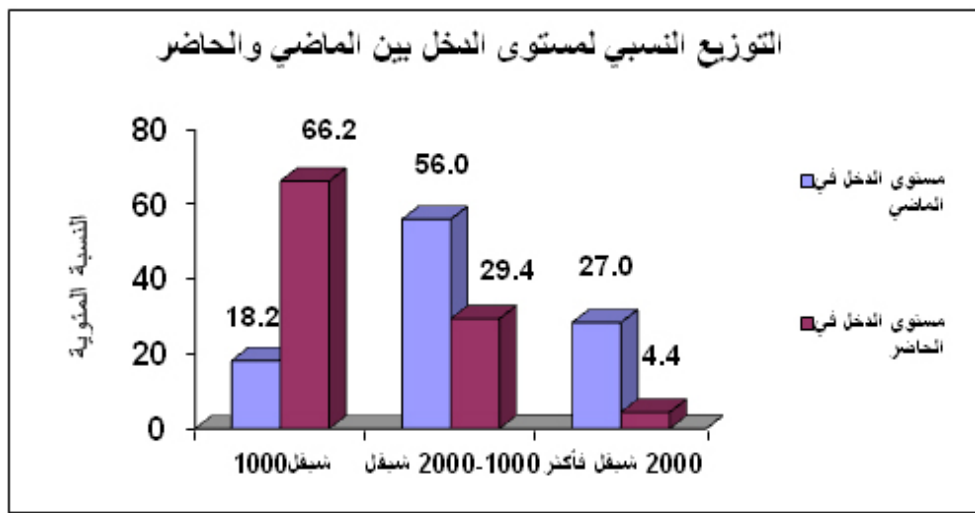
%64.7

%50.0

3.2.2.4

(7)

:(7)



%56.0

2000-1000

%28.4

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2000

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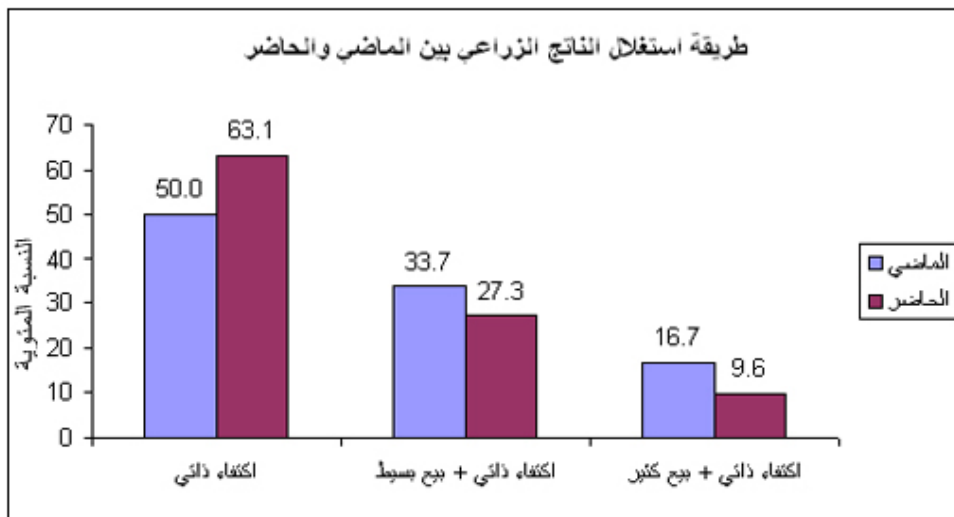
1000

%18.2

%66.2

4.2.2.4

(8):



(8)

50.0•63.1

3.2.4

1.3.2.4

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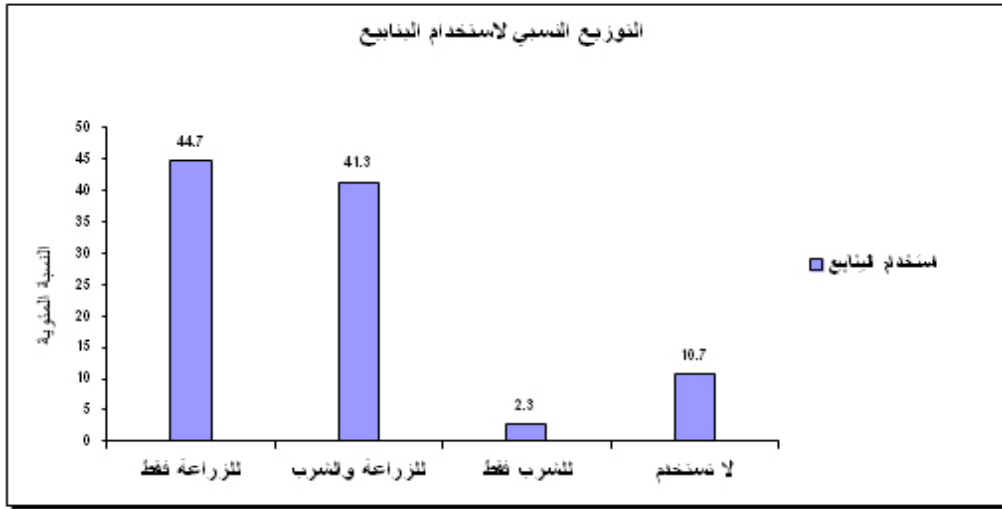
%44.7

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%10.7

(9)

:(9)

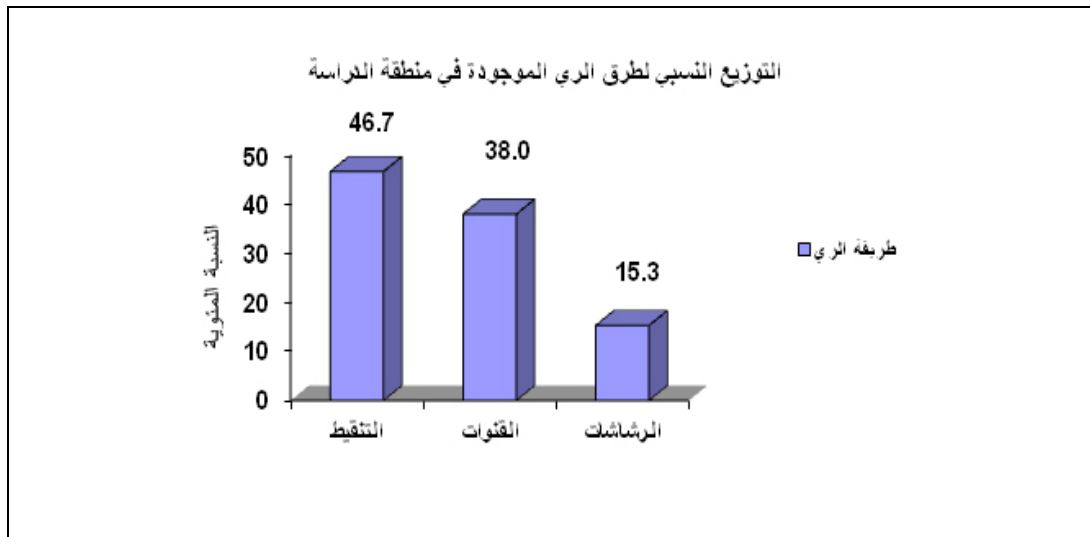


2.3.2.4

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(11)

:(11)



5.3.2.4

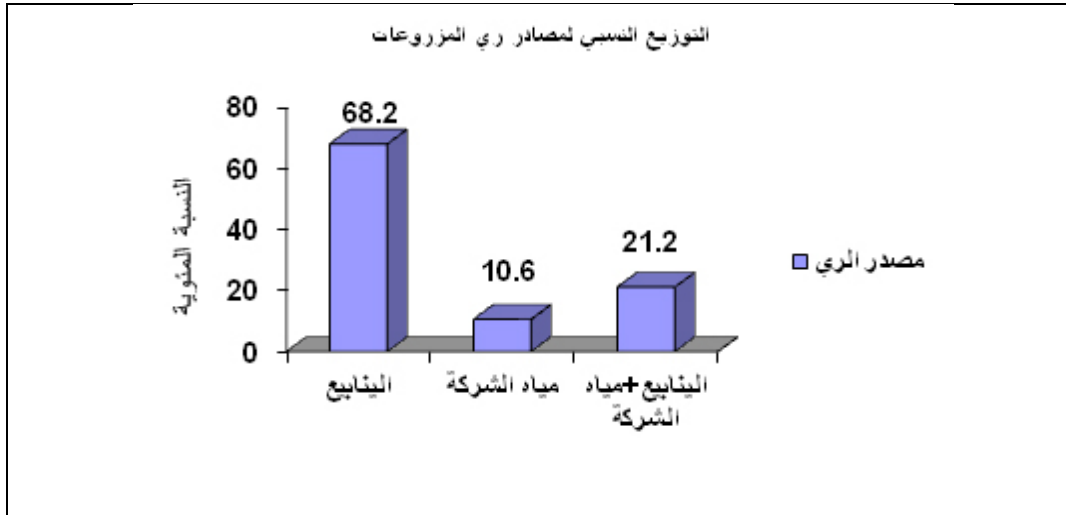
%10.6

%68.2

(12)

%21.2

:(12)



6.3.2.4

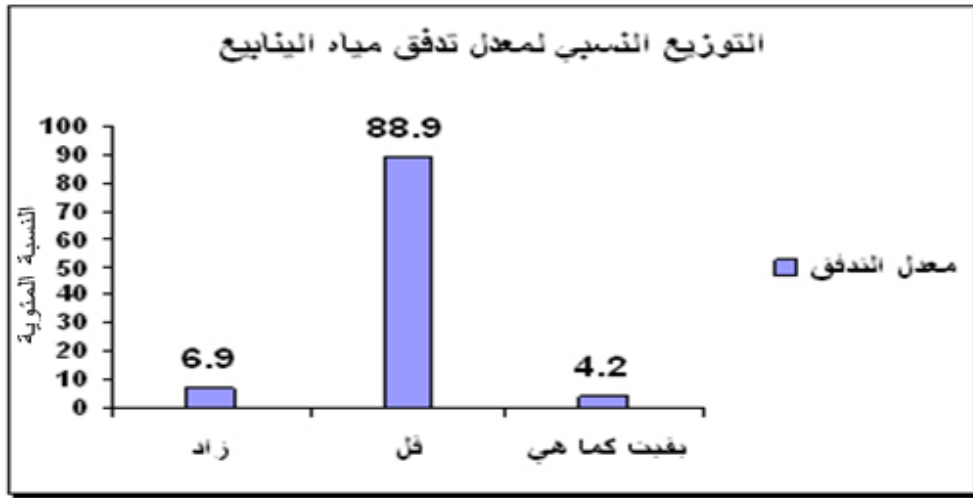
%6.9

%88.9

%4.2

(13)

:(13)



7.3.2.4

%12.3

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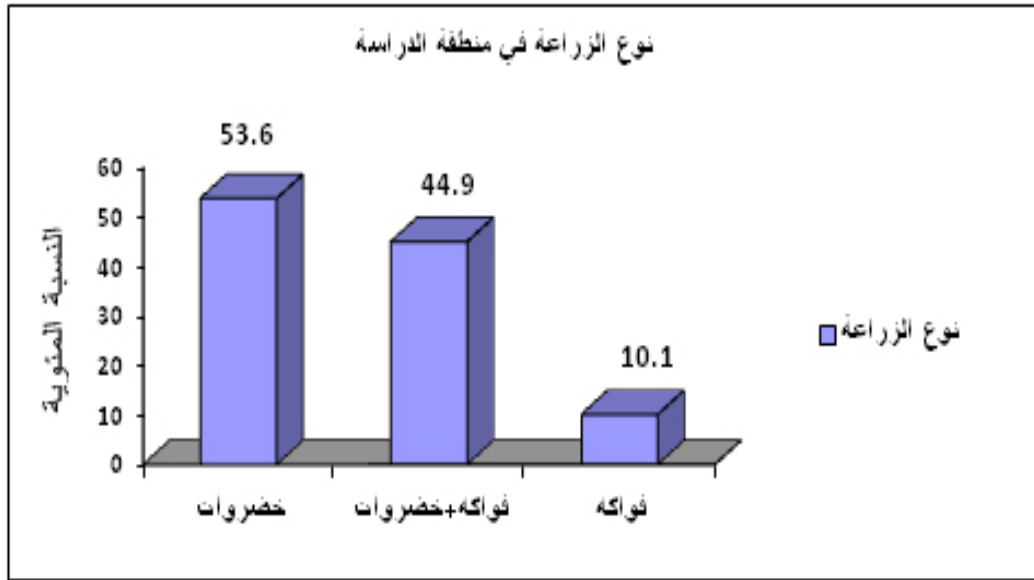
8.3.2.4

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9.3.2.4

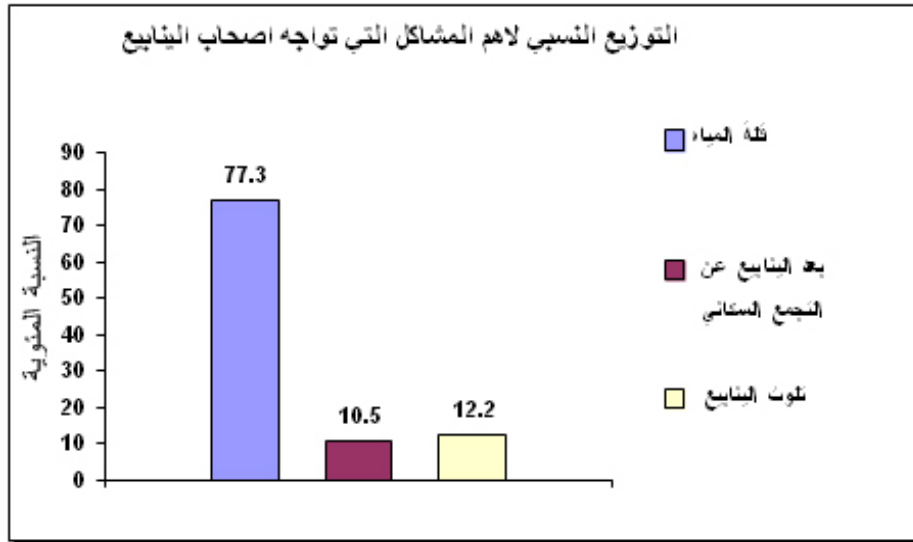
%77

%10.5

%12.2

(15)

:(15)



10.3.2.4

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11.3.2.4

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%64

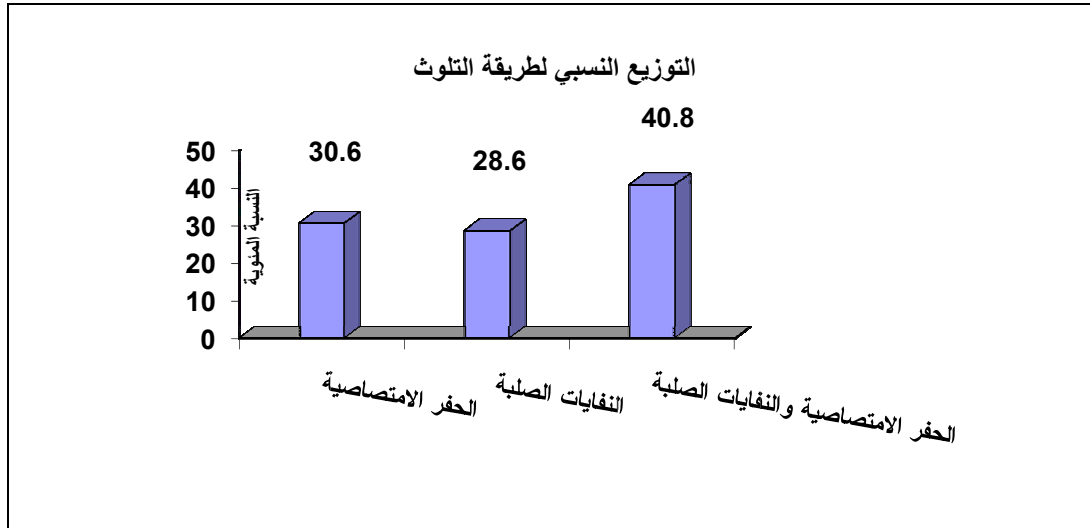
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12.3.2.4

(16)

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13.3.2.4

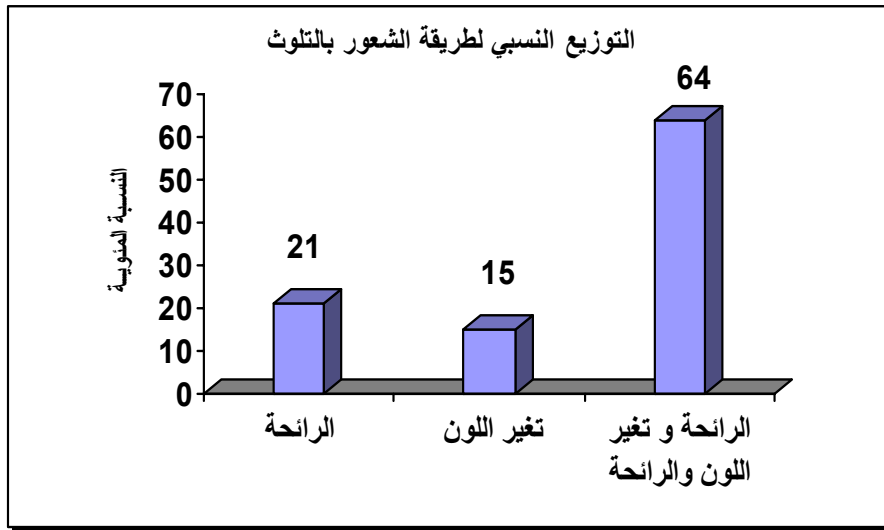
%96

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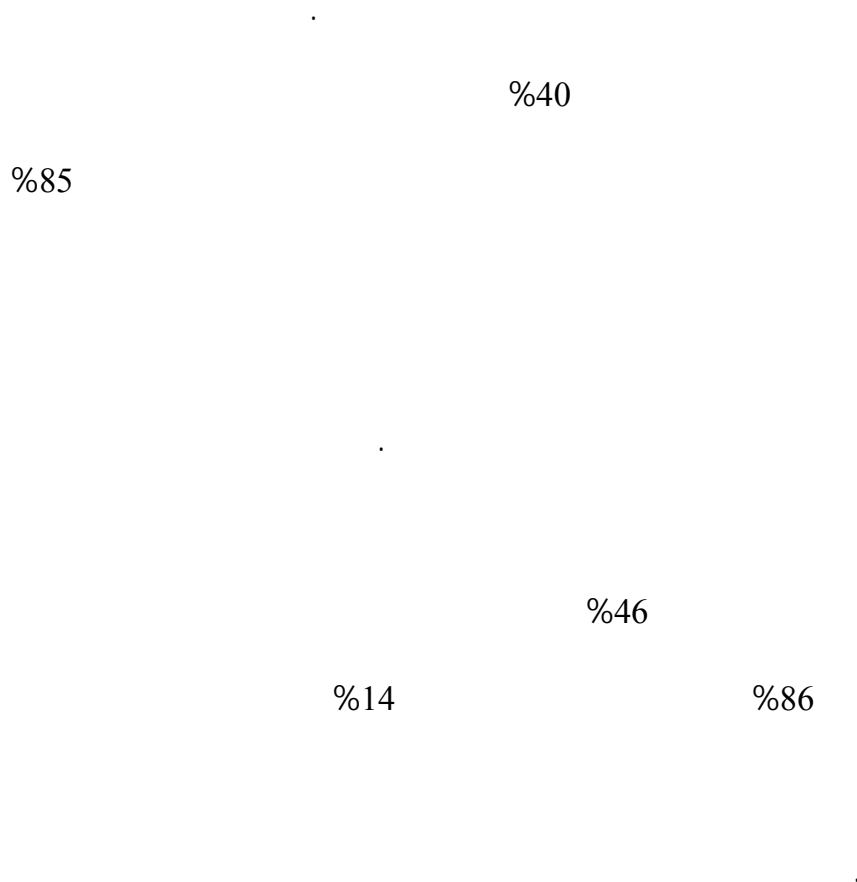
:(17)



(17)

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4.2.4



SPSS

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(5)

(5)

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	19.006 ^a	.603	.834
2	19.695 ^a	.597	.827
3	23.055 ^b	.571	.791

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

b. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

:

(6)

$$\text{Logit } y = -2.773 + 5.606$$

:

:y

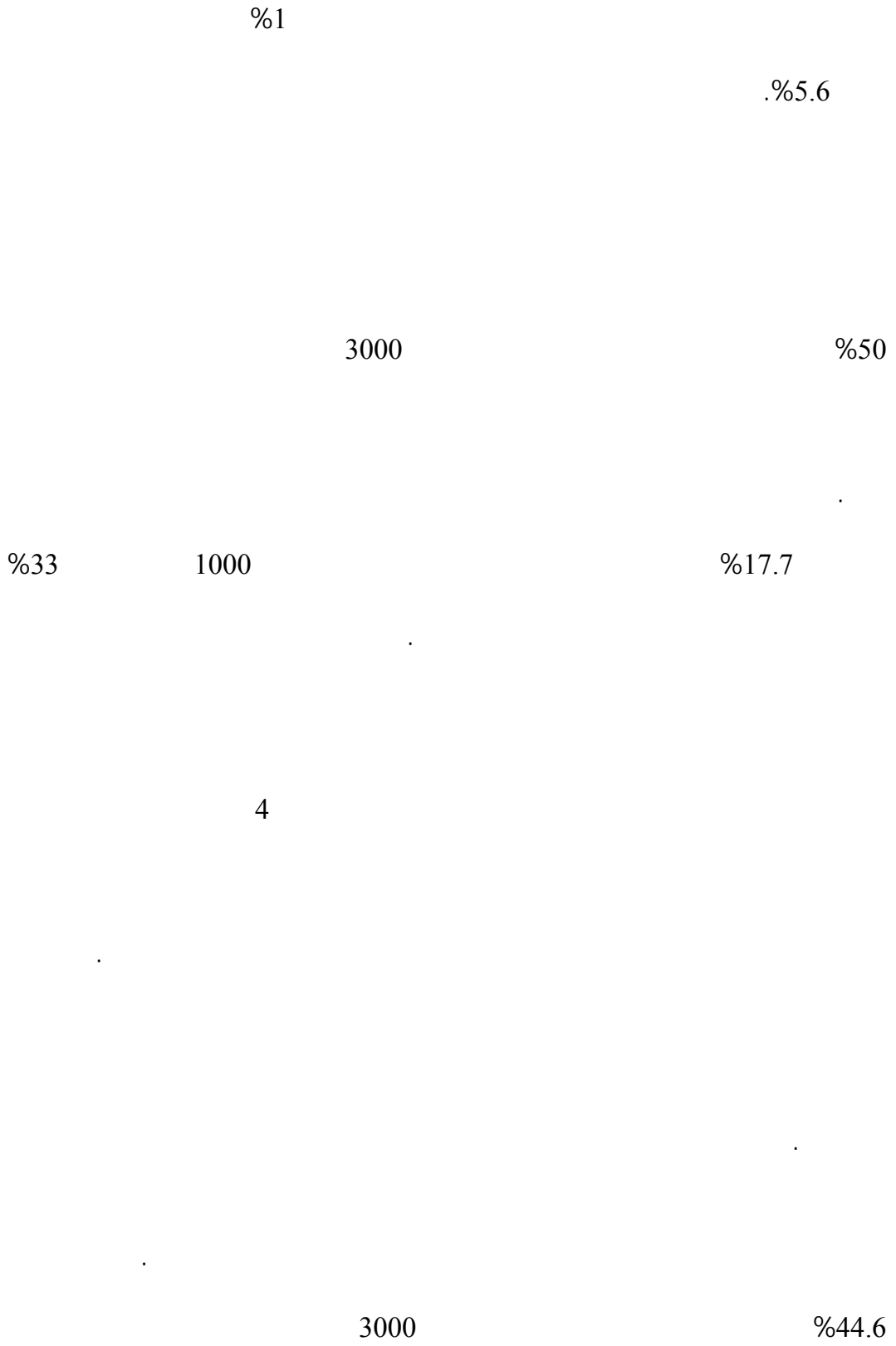
:X

(6)

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	q5	6.998	2.038	11.792	1	.001	1094.987
	q6	.767	.629	1.485	1	.223	2.153
	q7	.302	.393	.591	1	.442	1.353
	Constant	-6.831-	2.917	5.483	1	.019	.001
Step 2 ^a	q5	6.937	1.993	12.115	1	.001	1029.543
	q6	.949	.592	2.566	1	.109	2.582
	Constant	-6.290-	2.758	5.199	1	.023	.002
Step 3 ^a	q5	5.606	1.262	19.740	1	.000	272.000
	Constant	-2.773-	1.031	7.235	1	.007	.063

a. Variable(s) entered on step 1: q5, q6, q7.



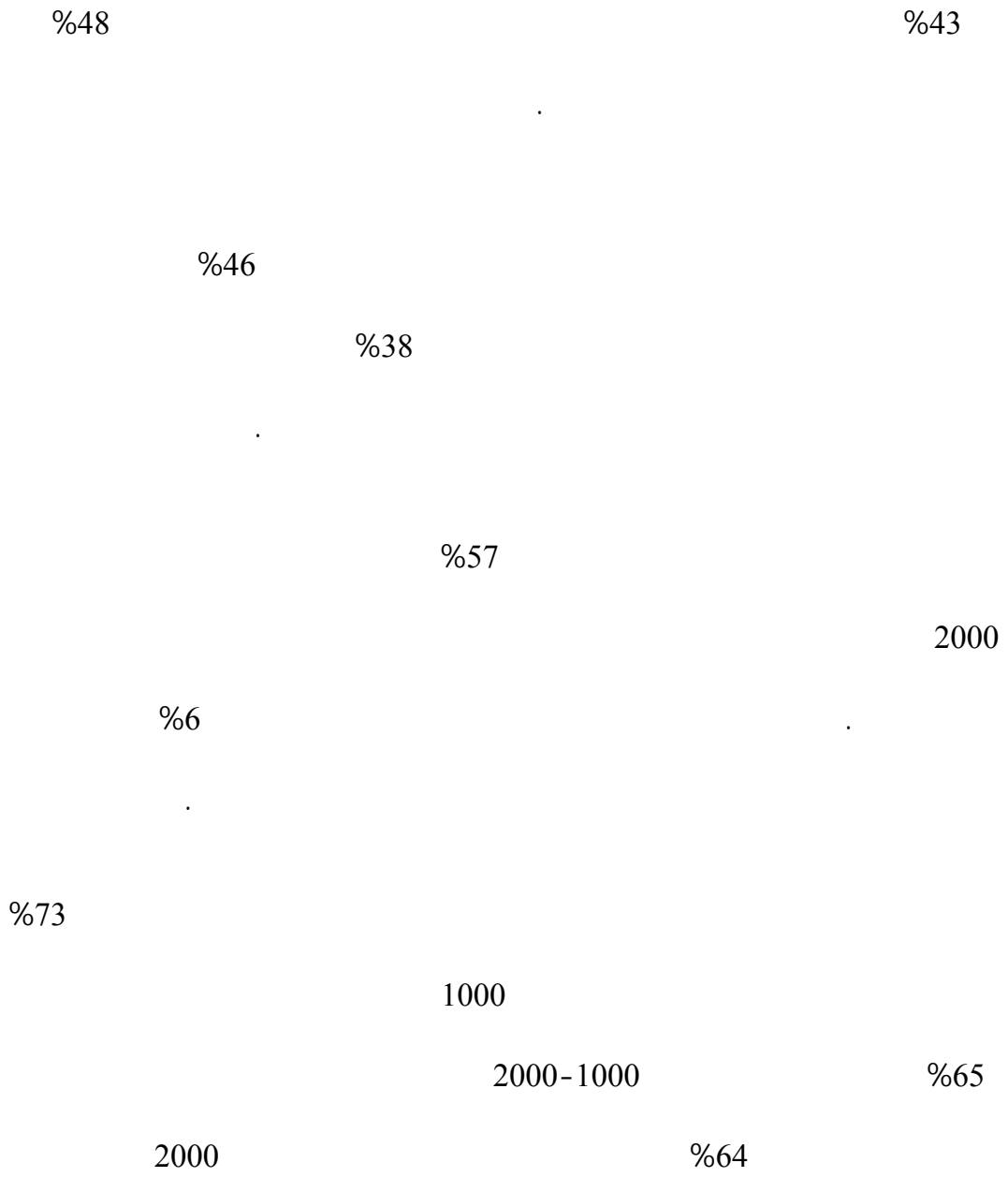
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PH

(8.5 -6.5)

:EC .3

.(shalash, 2006,p 34)

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) (NTU) Nephelometric Turbidity Units

(205 2004

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(205 2004)

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2.4.4

(7)

(7)

/	
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200	Na
250	Cl
200	SO ₄
50	No ₃
100	Mg
100	Ca
10	K
1.0 cfu/100ml	
1.0 tc/100ml	
15-11	

: NO₃

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/ 50

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(208 2004)

:K .2
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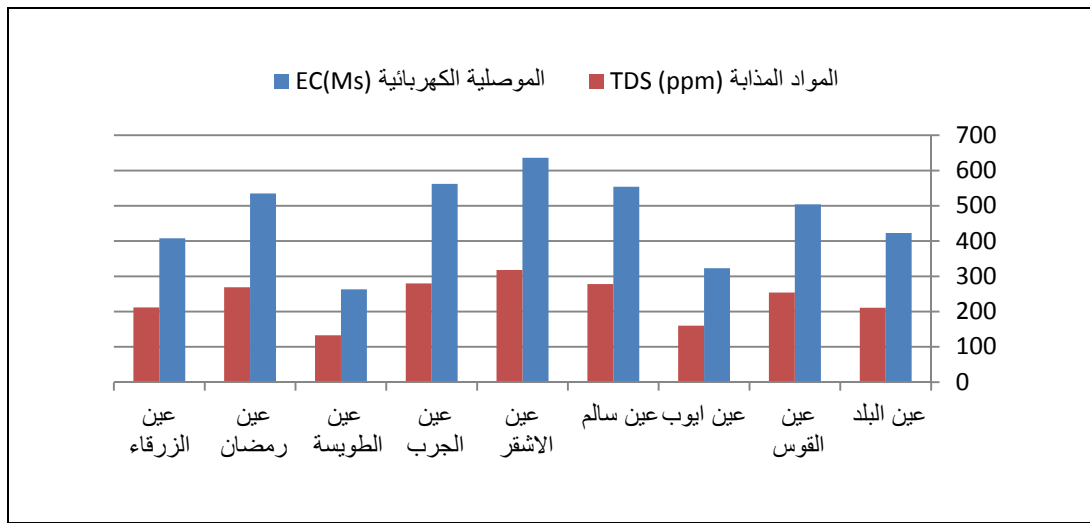
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263

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ms\cm 636

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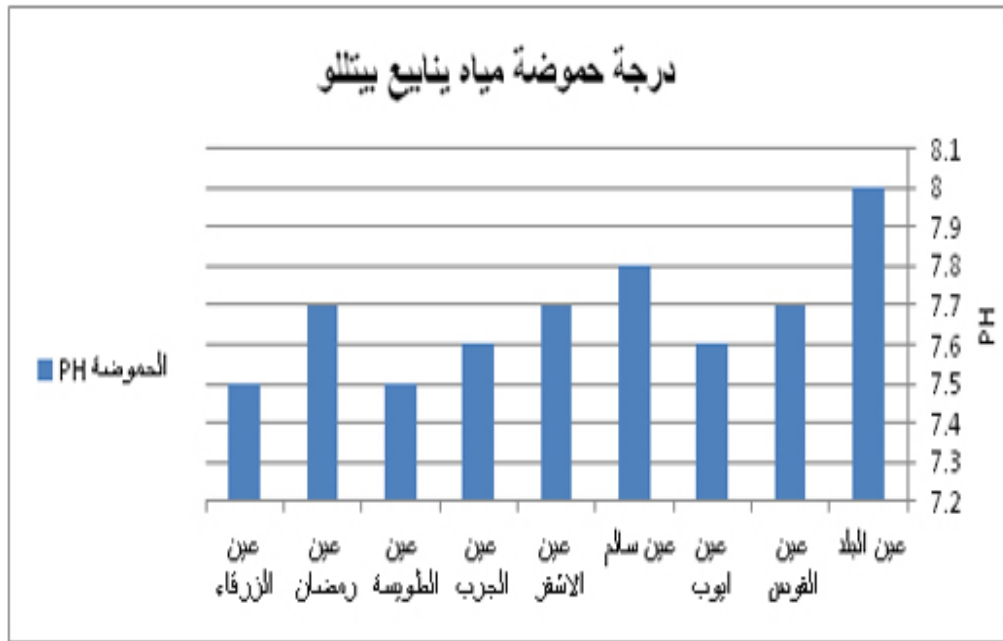
(19)

8.0

7.5

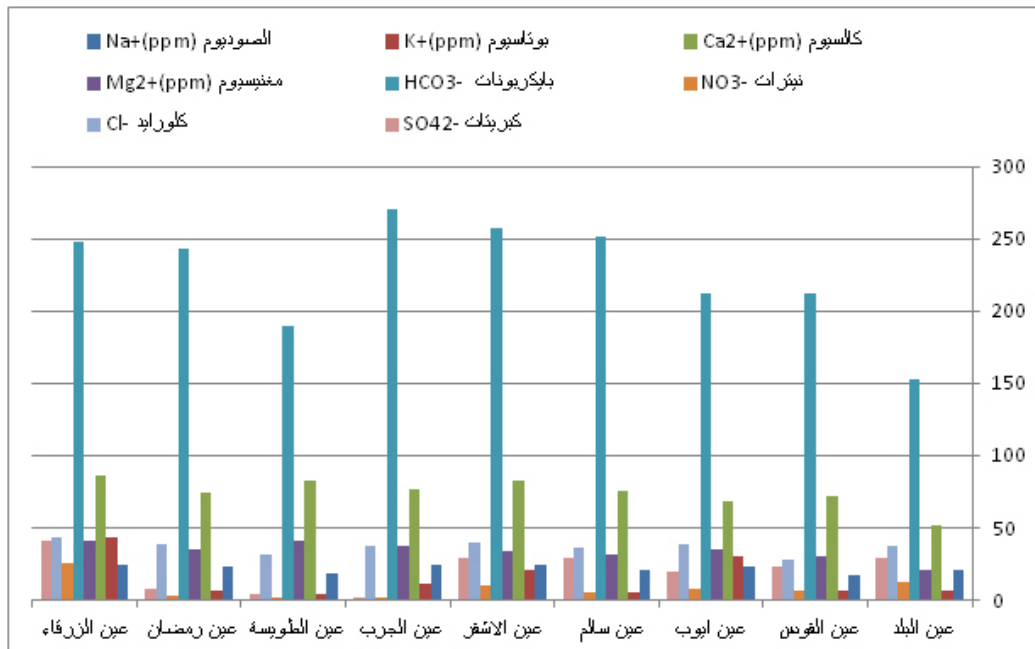
(8.5-6.5)

(19)



(20)

(20)

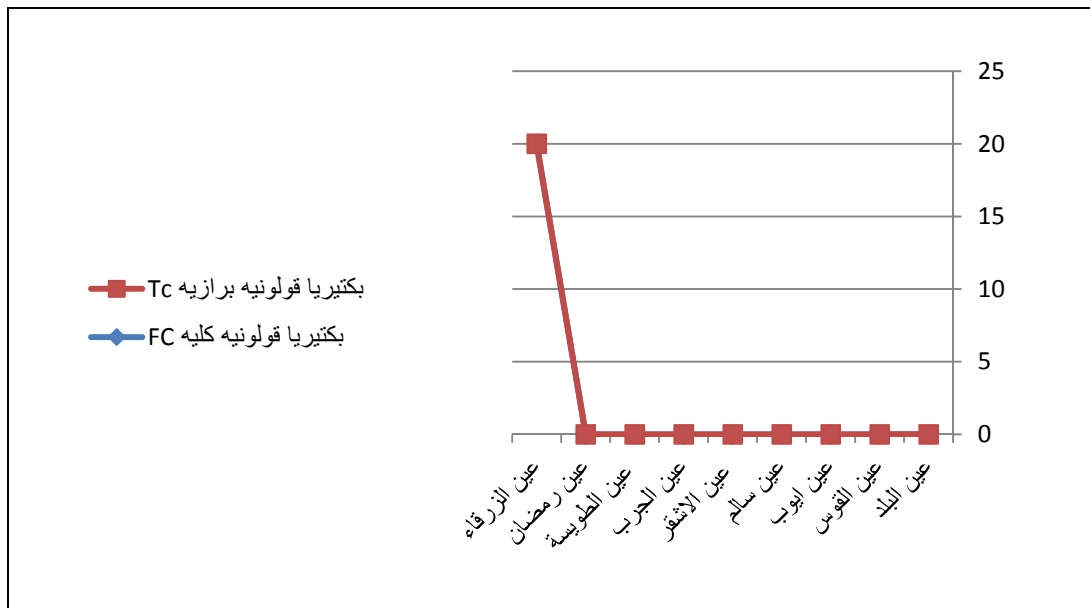


/ 26.0

/ 1.0

(21)

(21)



100/ 20

.(1.0 cfu/100ml, 1.0 tc/100ml)

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1

(8)

(8)

TDS (ppm)	EC(Ms\cm)	PH	
269	528	7.6	

269

7.6

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/ 528

(9)

SO ₄ ²⁻	Cl ⁻	NO ₃ ⁻	HCO ₃ ⁻	Mg ²⁺ (ppm)	Ca ²⁺ (ppm)	K ⁺ (ppm)	Na ⁺ (ppm)	
18	41	7	230	31	76	22	23	

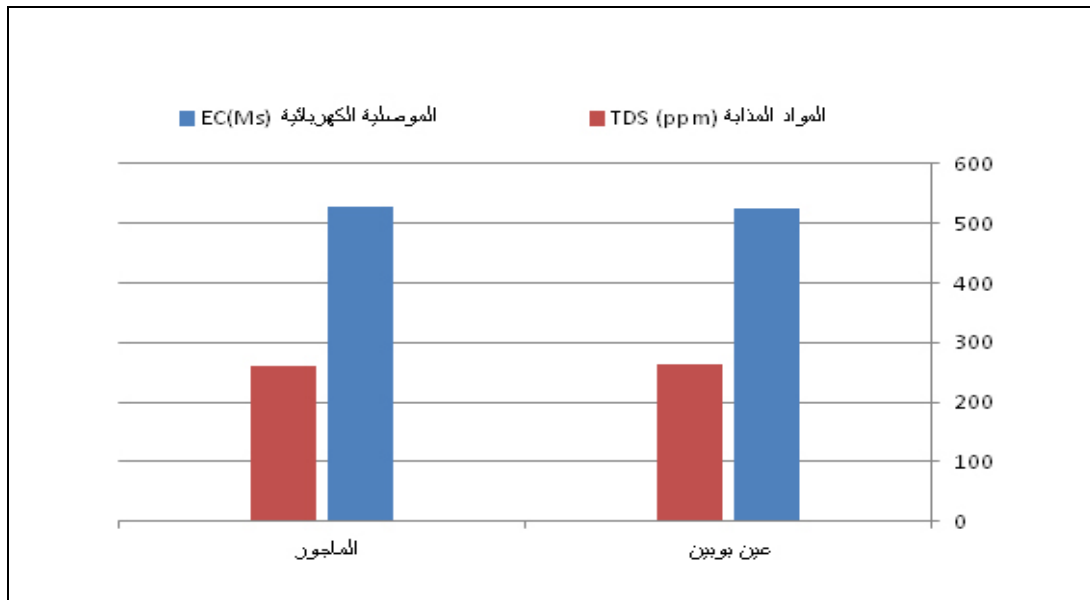
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(22)

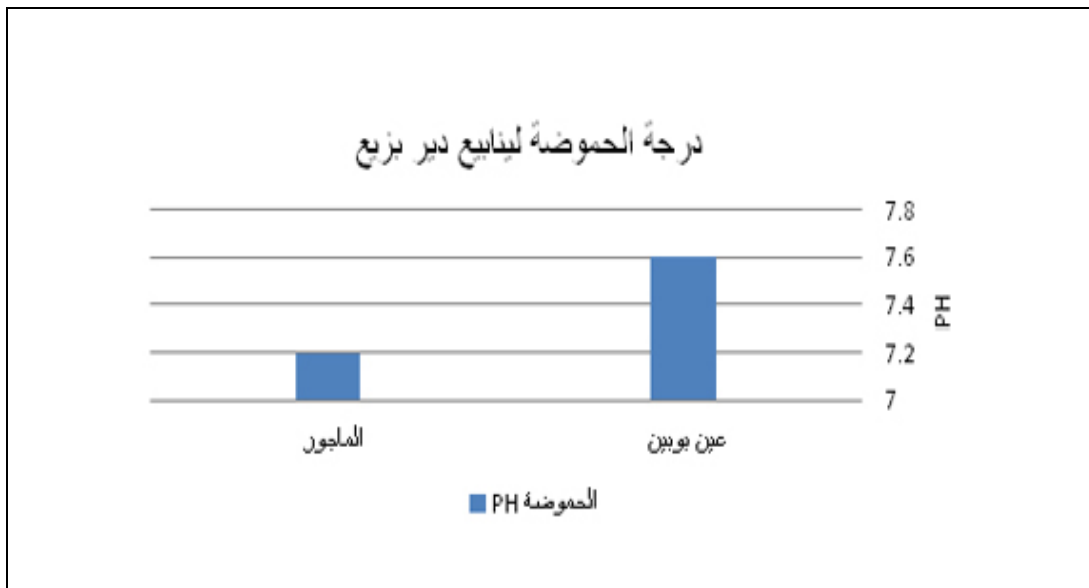


537

526

(23)

(23)



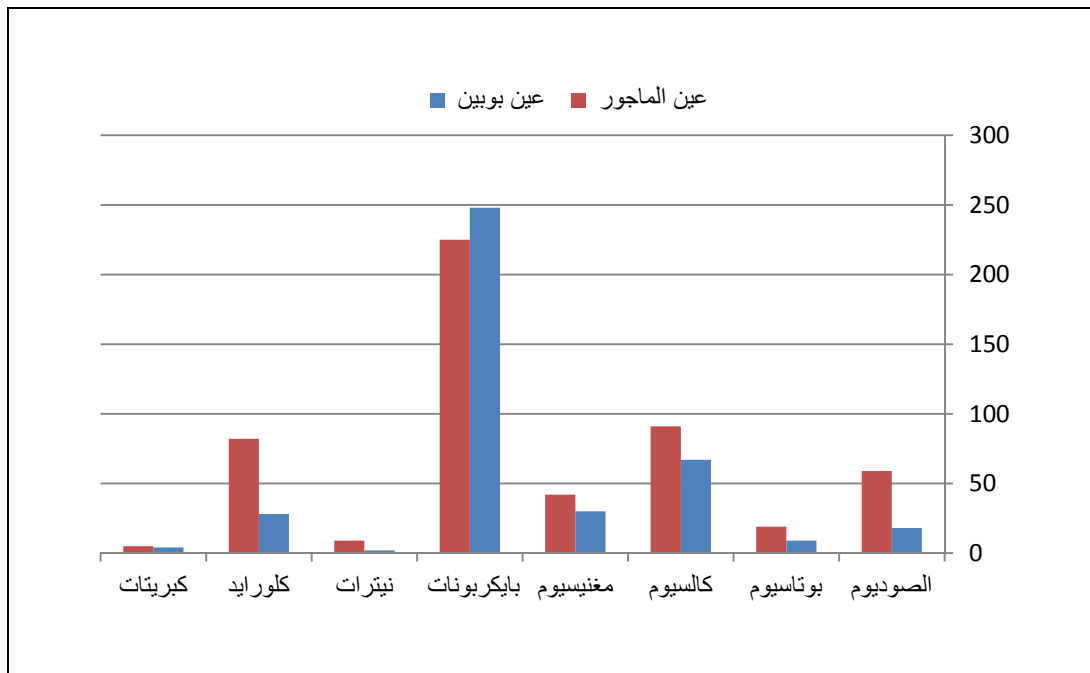
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(24)

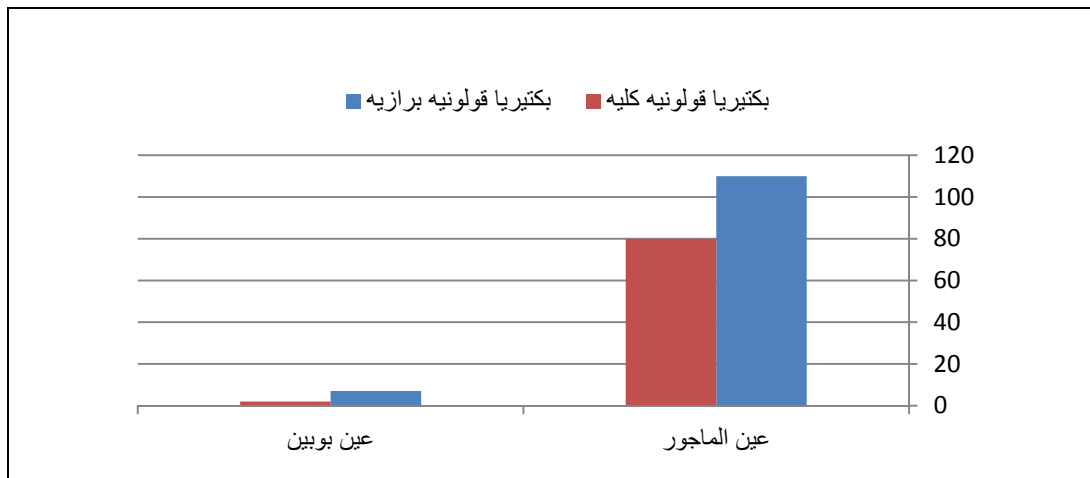


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(25)



100/

1.0

3

60

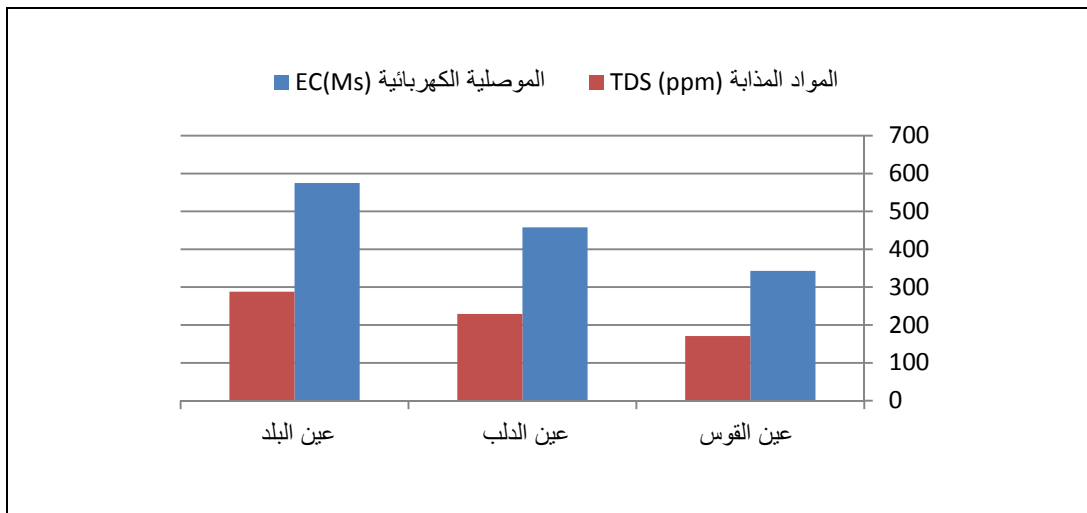
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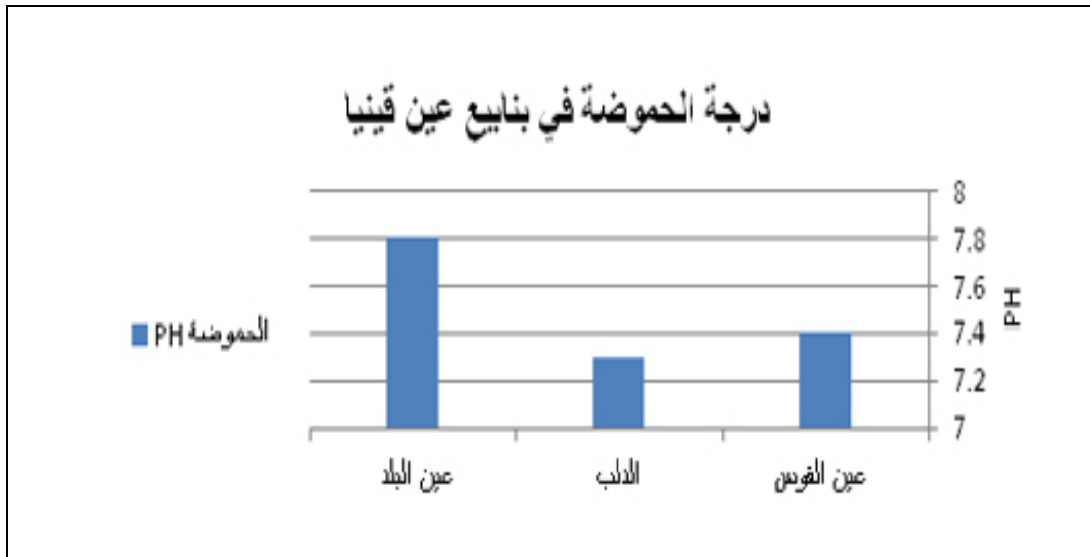
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(26)



288

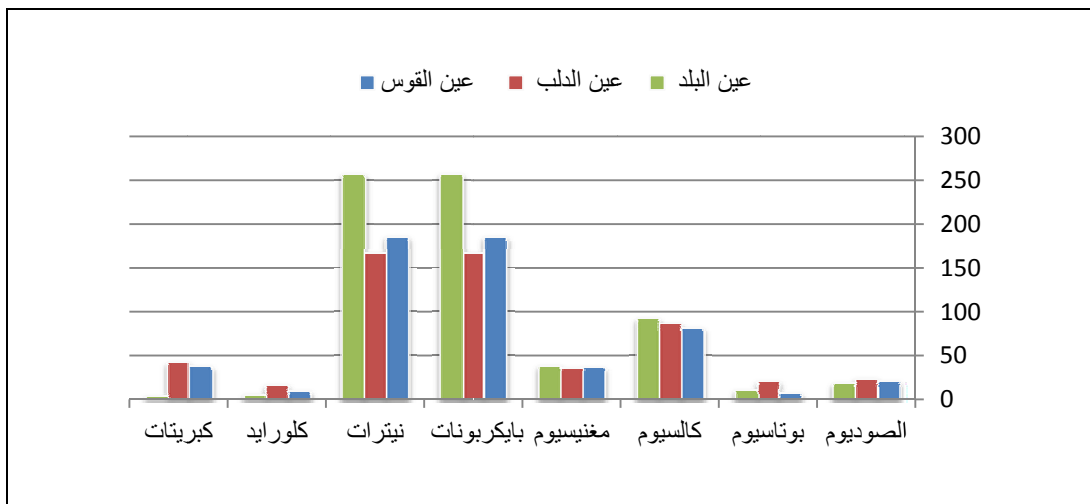
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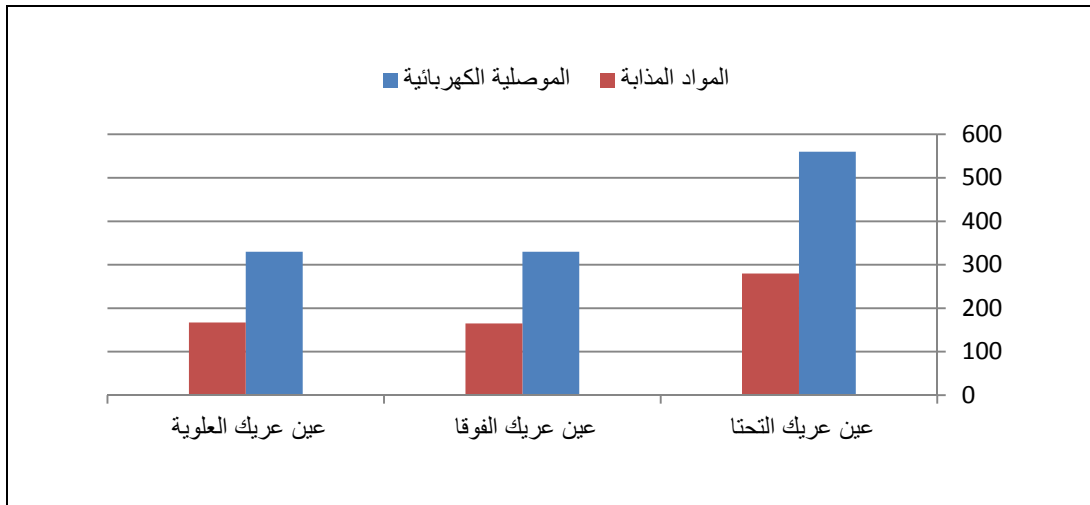
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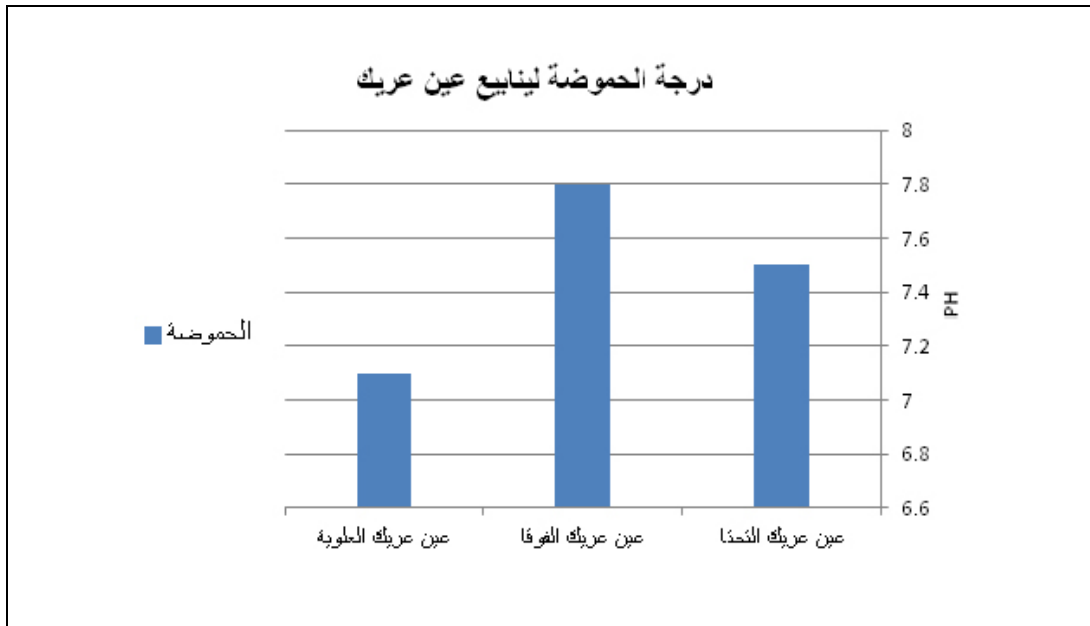
(29)



(29)

(30)

:(30)



8.0 - 7.1

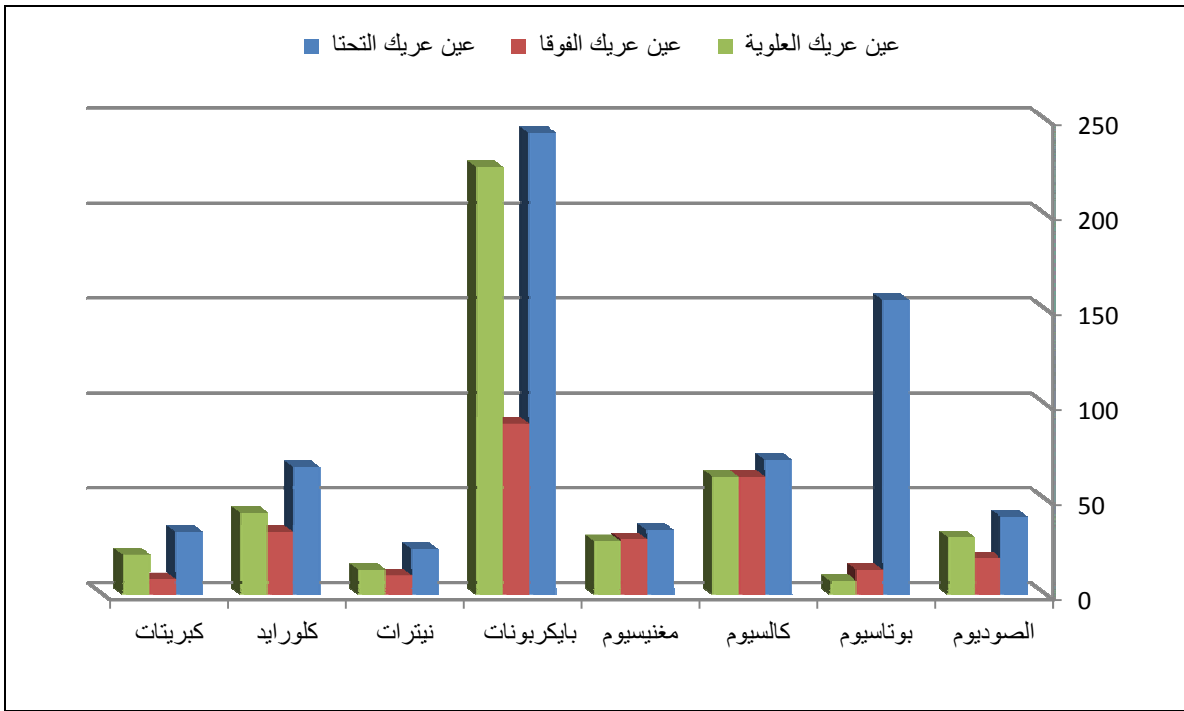
7.1

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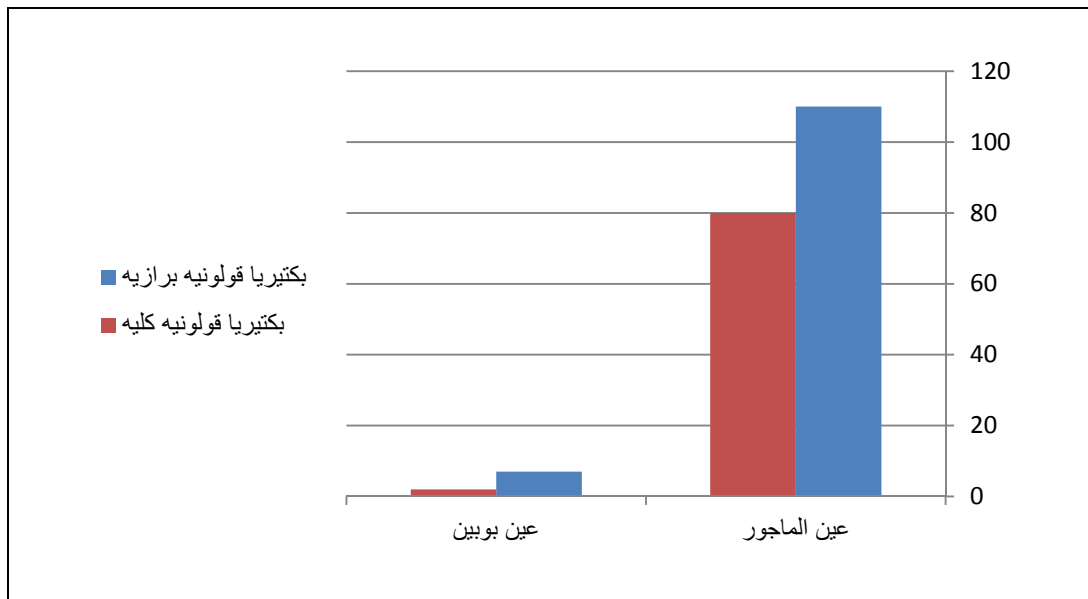
(31)

(31)



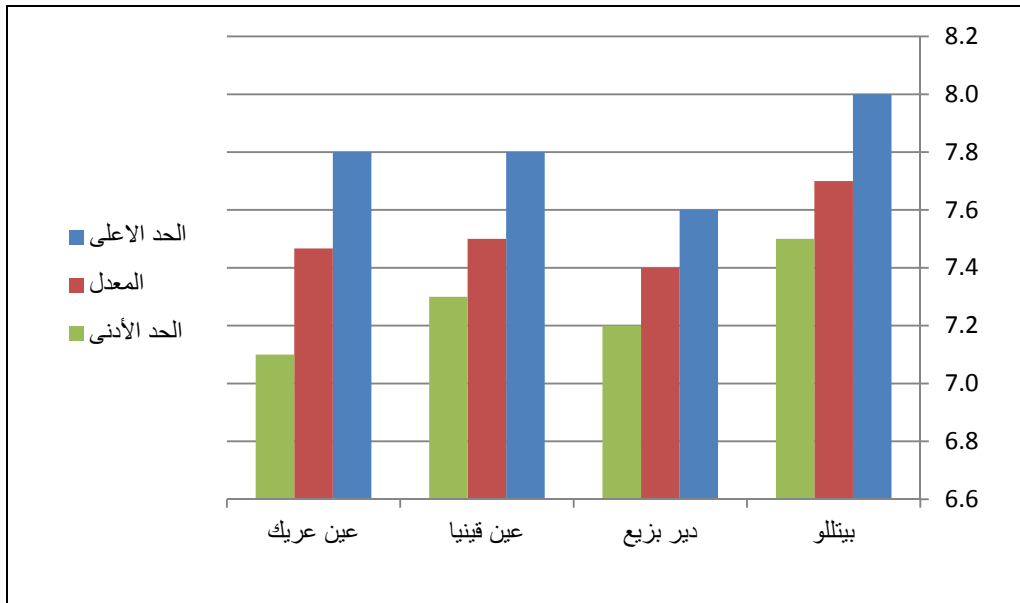
(32)

(32)



(33)

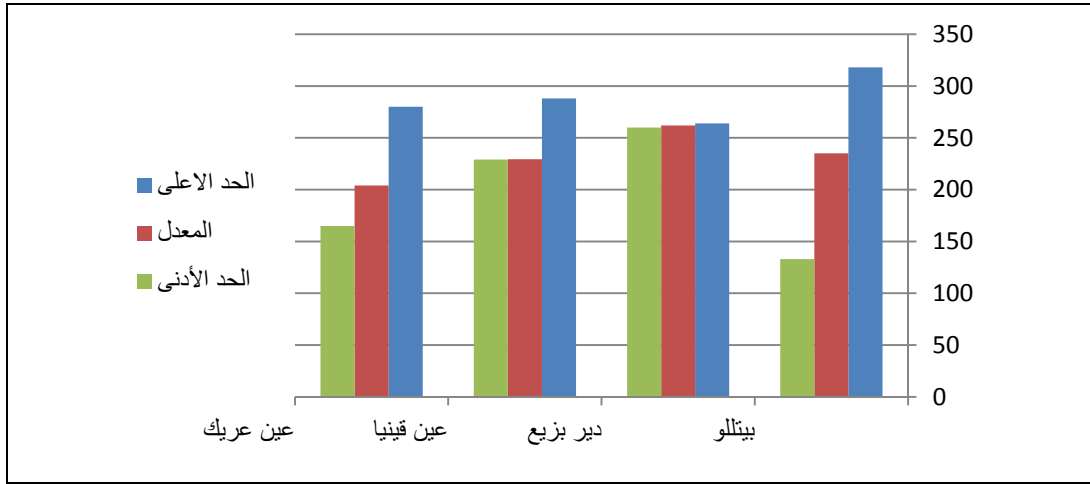
(33)



8.0

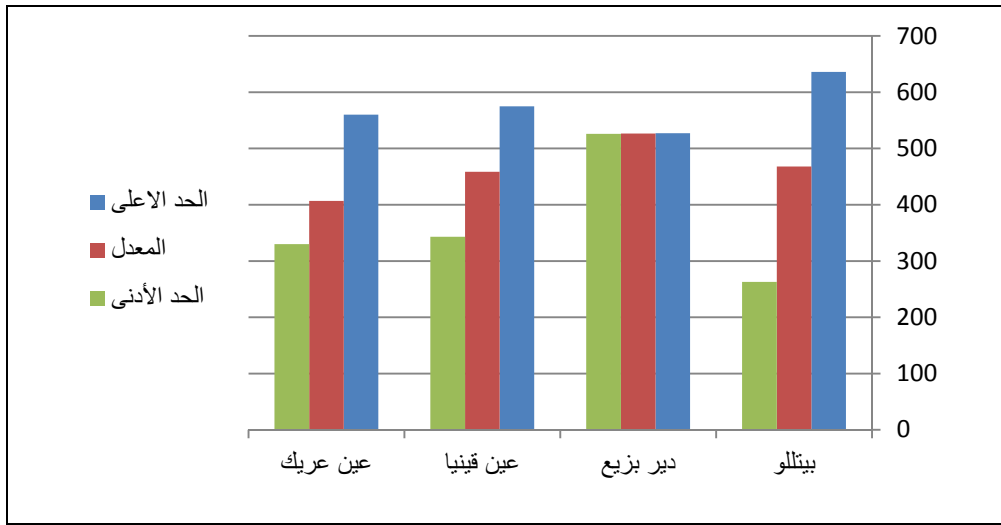
(34)

(34)

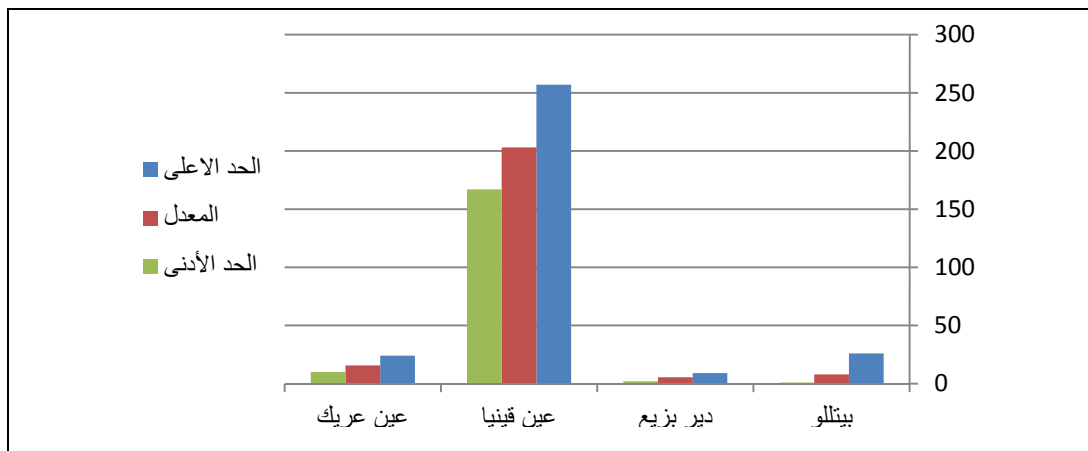


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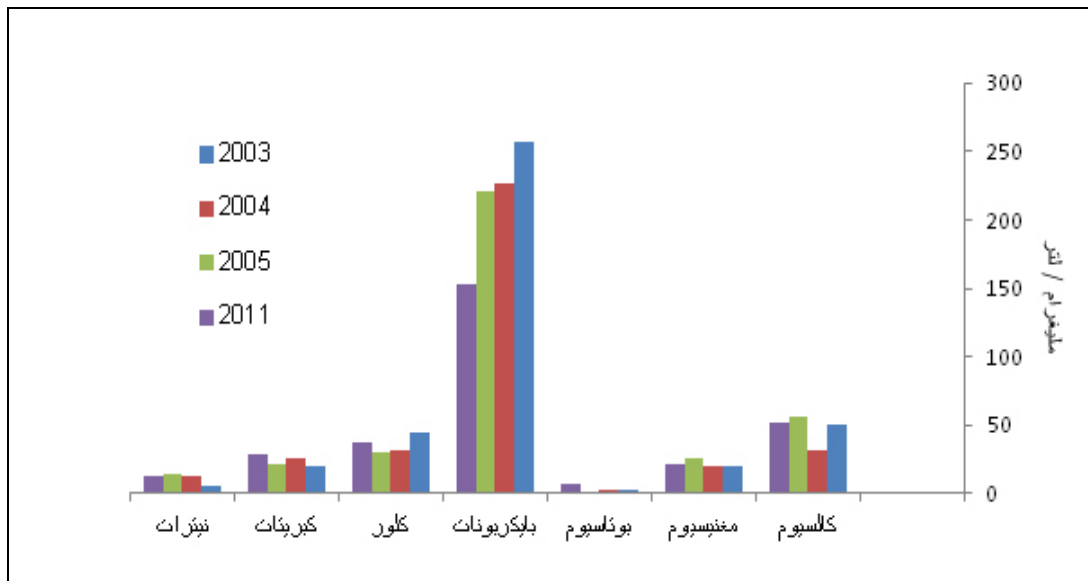
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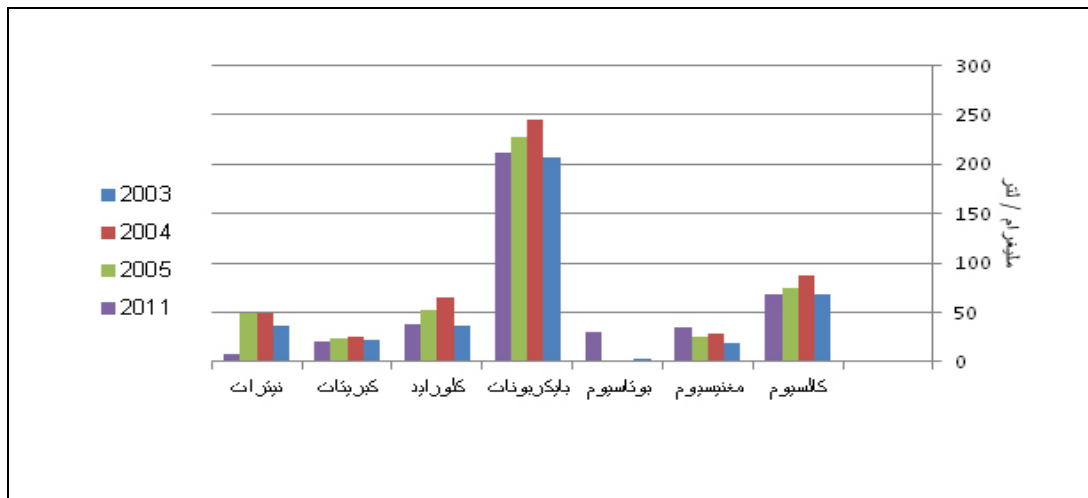
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