

Socioeconomic assessment on Lake Maryut (Egypt)

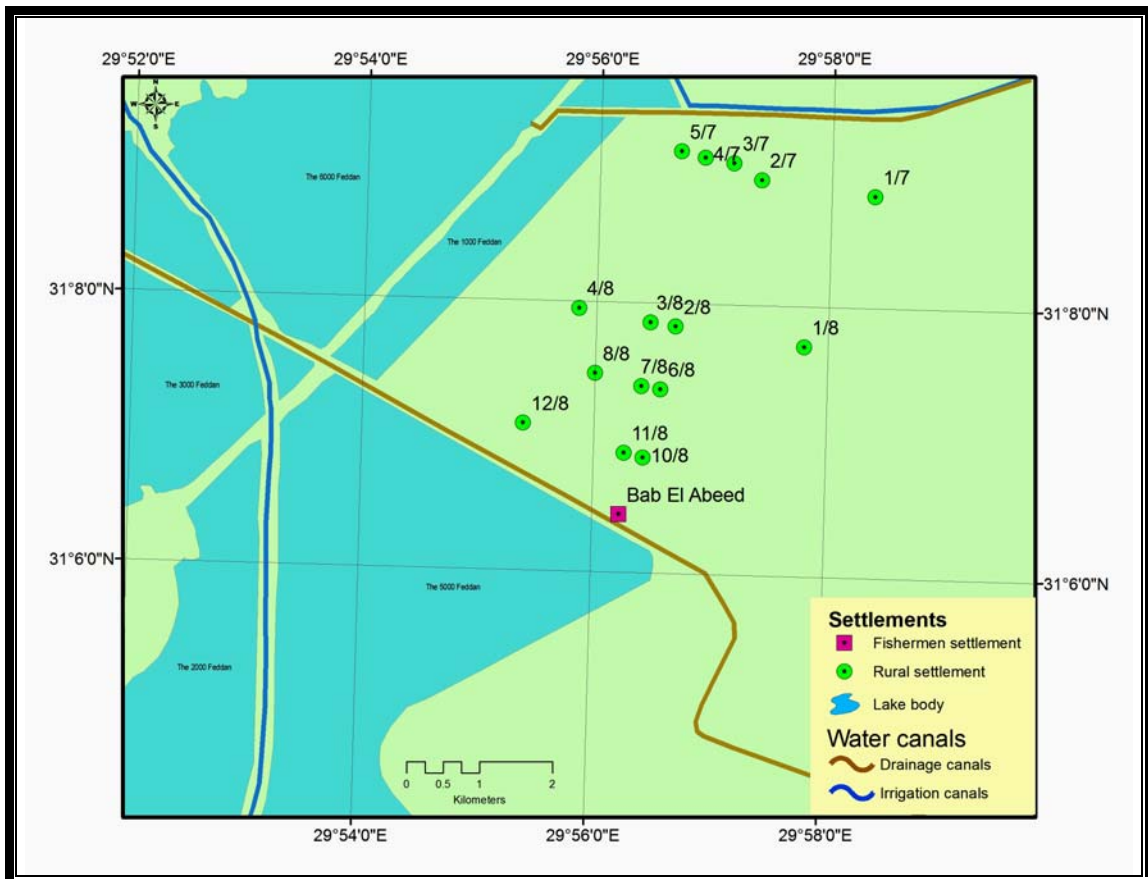
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1. Introduction:

In order to assess the socioeconomic conditions in Lake Maryuit, a wide range of data was collected through a filed survey. For that purpose a preliminary questionnaire form developed and used in conducting a pilot survey covering a relatively limited number of cases in the area of Lake Maryuit and its surroundings.

The filed survey involved collecting data about 85 households in a number of settlements close to the lake. The majority of the cases (75%) was from Bab El Abeed settlement of fishermen adjacent to the lake, while the remaining part of the cases was from a number of rural settlements nearby the lake (Map 1).



Map (1): Human settlements covered by pilot survey

The data collected through the pilot survey provided insight of the socioeconomic conditions prevailing in the area of Lake Maryuit. The next sections discuss the main the socioeconomic conditions prevailing in the area of the Lake Maryuit.

2. Household conditions

2.1 Occupational status

Most of household head of the cases (93.42%) worked locally in the area. While the major proportion of the cases (60.53%) was working in fishing, minor parts were working agriculture and other local jobs which hold 12.16% and 19.745 respectively (Figure 1).

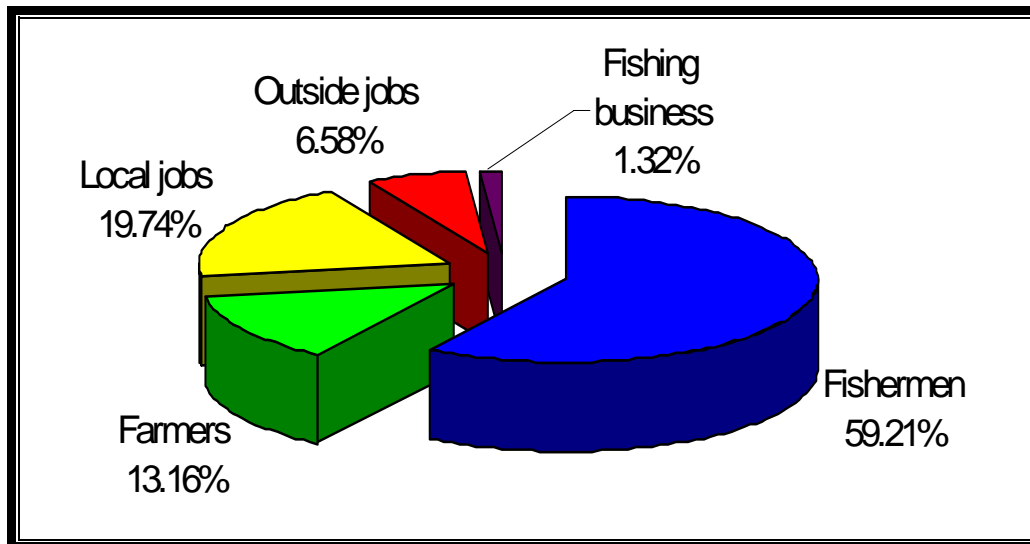


Figure (1): occupational status of the cases

However, it should be noted that such high proportion of the cases working in fishing activities is due to the fact that most of cases (75%) were from Bab El Abeer settlement which is occupied mainly by fishermen.

2.2 Educational level

The illiteracy rate among the cases was found to be 41.89%, meanwhile low proportions of cases were either university or high school graduates who represented about 8.11% and 17.57% respectively (Figure 2).

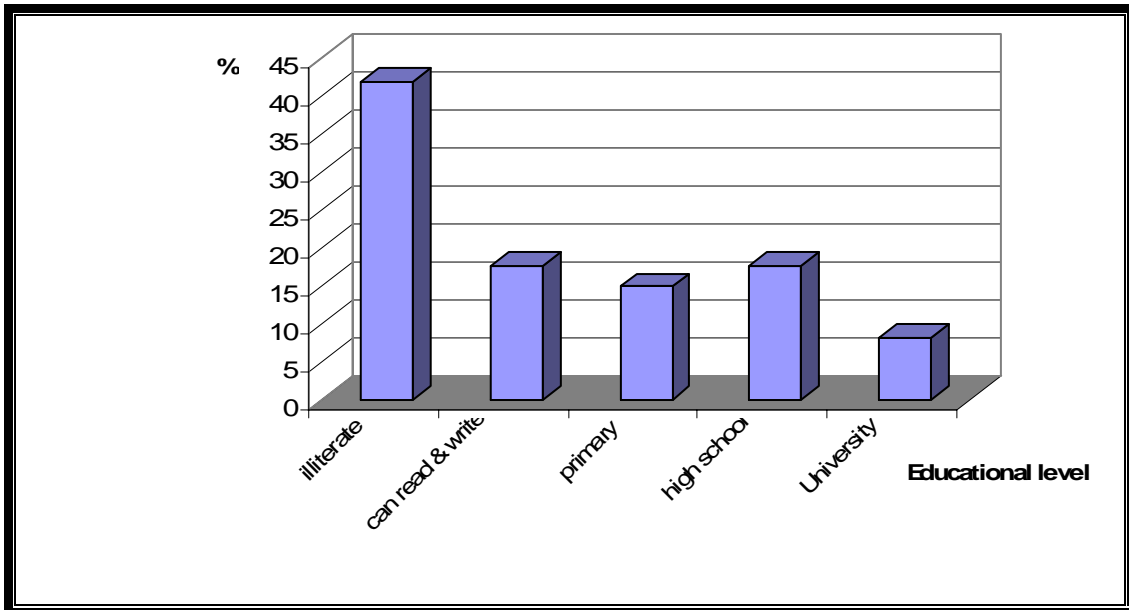


Figure (2): Educational level of household head

2.3 Social security and health insurance

Concerning the involvement of the household head in the social and health insurance systems, it was found that 78.05% and 67.07% of the cases wasn't involved in social and health insurance systems (Figure 3).

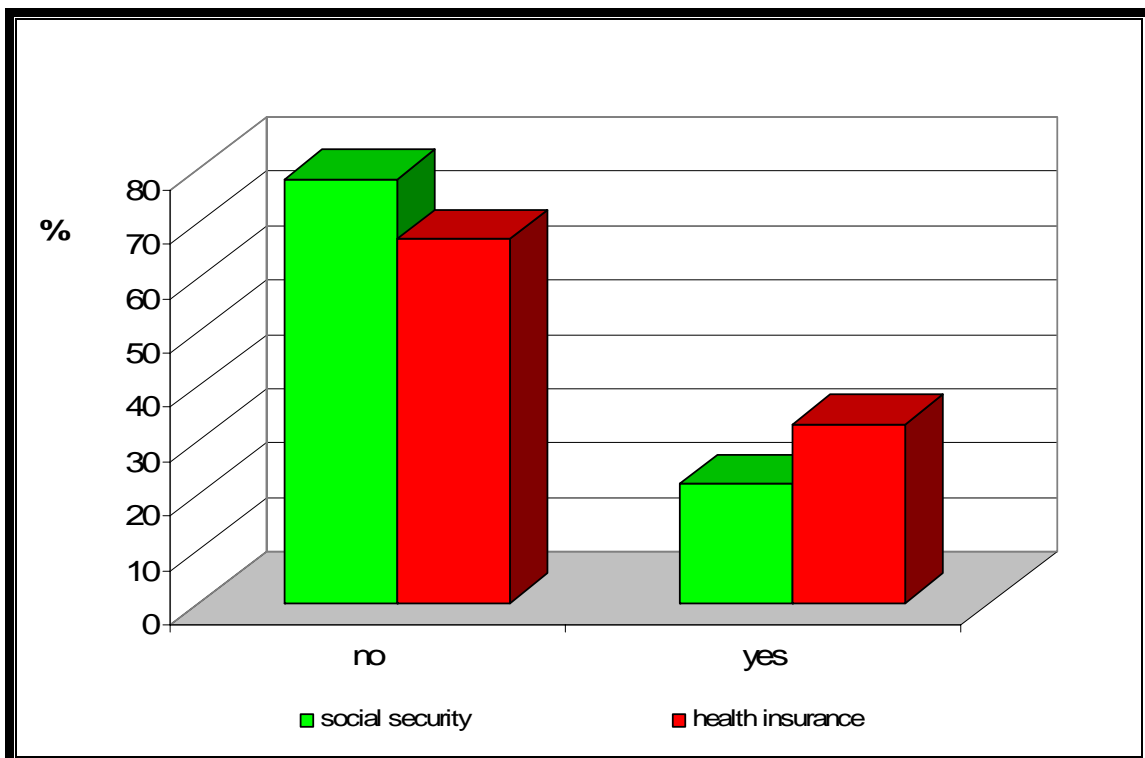


Figure (3): The involvement in social and health insurance systems

In general, such high percentage refers means that major parts of the families of the sample cases are working in informal sector and consequently are subject to high levels of risk to be poor at any time.

2.4 Number of children per household

The household size of the sample case was found to be large as 47.14% of the sample cases have 4 children or more (Figure 4). This in fact reflects the high fertility rate prevailing in the area, which can be considered as one of the main characteristics of rural community.

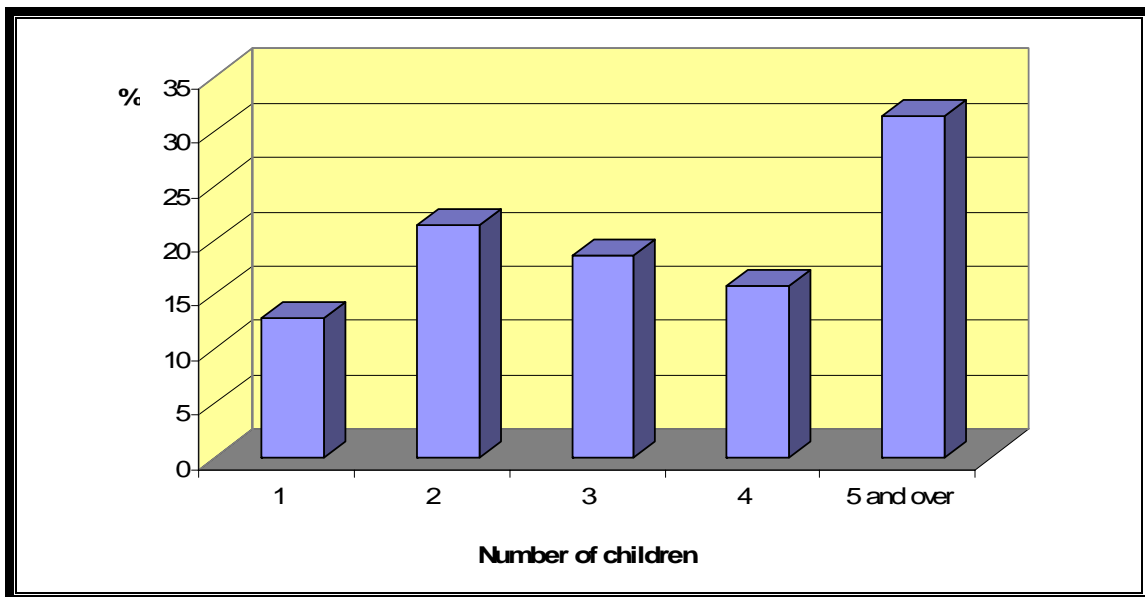


Figure (4): Number of children per family

2.5 Children education

Concerning the education levels of children, it was found that the children of about 23.19% of the cases are pre-education age and the children of about 29% of the sample are still in education (Figure 5).

Meanwhile, about 47.83% of the cases either did not join their children with education or dropped out. The high cost associated with education relative to their limited the family income was the main cause for about 60.61% of these cases.

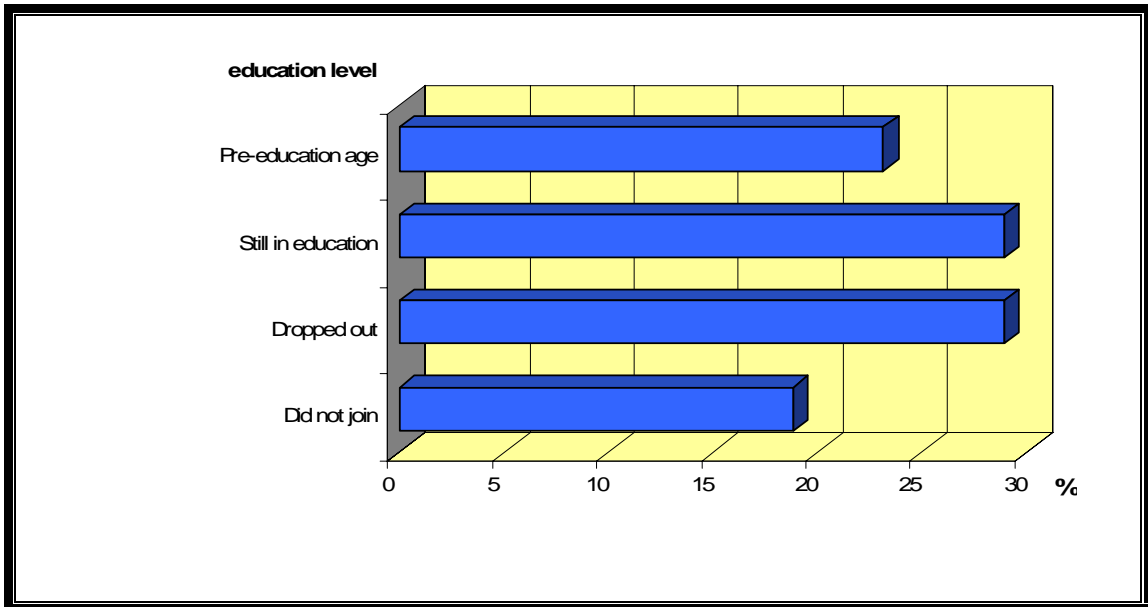


Figure (5): Education of children

3. Lake conditions

3.1 Features of lake deterioration

Concerning the perception of the residents for the lake, it was found that 49.40% of the causes think that the conditions of the lake have deteriorated during the last period. Such deterioration was mainly represented in low water levels for about and low water quality due to sewage disposal (Figure 6).

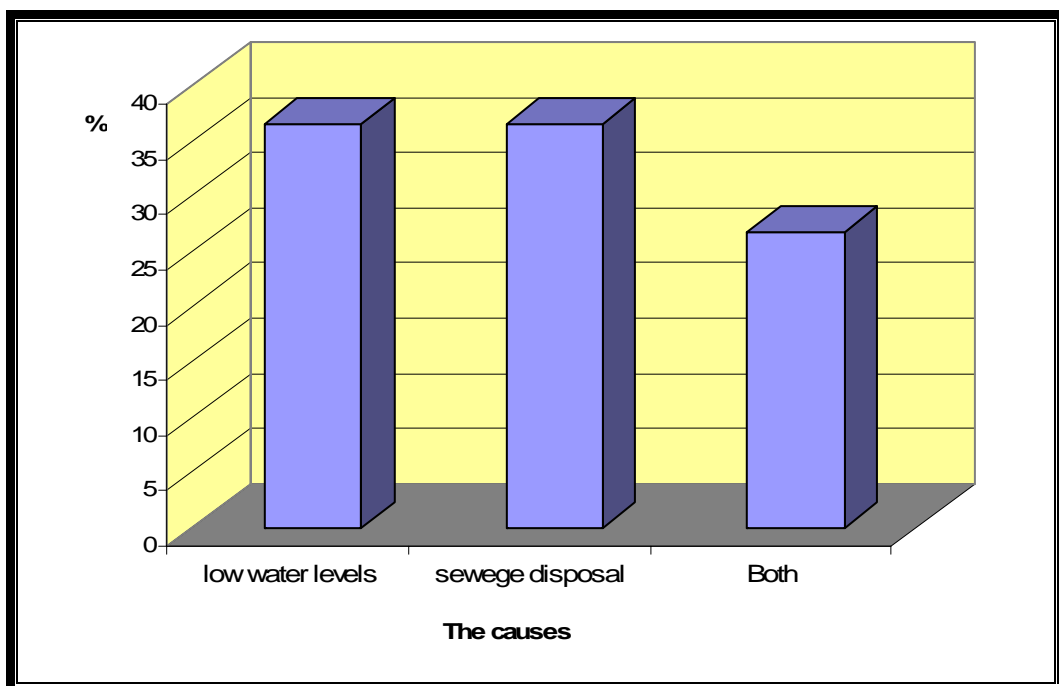


Figure (6): Features of lake deterioration

However, this means that about 50% of the sample cases aren't aware about the deteriorating conditions of the lake and associated problems. This, in turn, reflects low levels of awareness prevailing in the local community.

Furthermore, about 97.96% of the sample cases expressed that their work has significantly affected by the deterioration of Lake Maryuit conditions. Most of these cases (63.01%) was stated that the deterioration of the lake conditions has diminished the fish catch in the lake.

3.2 Responsibility of deterioration

According to the sample cases, the local authorities are the main body that is responsible for the deterioration of Lake Maryuit as more than a half of the sample cases (58.23%) thought that the deteriorating conditions of the lake Maryuit id the responsibility of Alexandria Governorate. This followed by Aqua culture authority according to 13.92% of the cases (Figure 7).

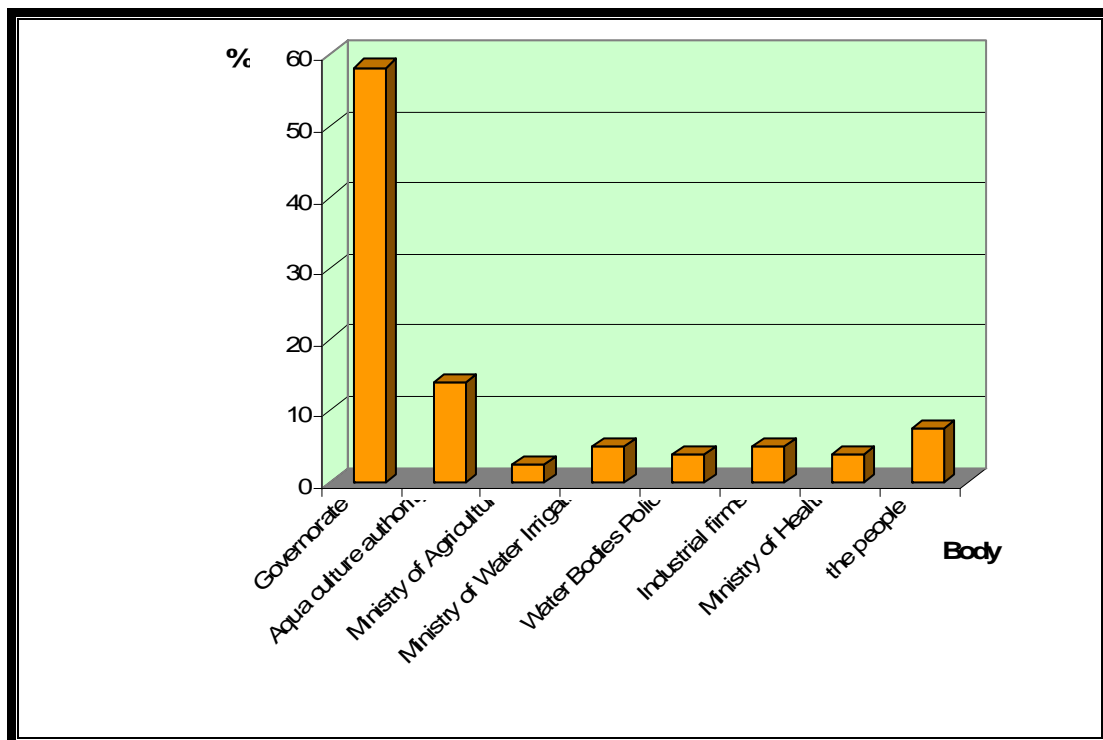


Figure (7): Responsibility of Lake Maryuit deterioration

3.3 Change in Fish catch

According to the fishermen of the cases, the average daily fish catch in the past the fish catch ranged from up to 10 kg for about 46.94% of the cases,

to over 30 kg for about 4.08% of the cases. Meanwhile, 100% of the fishermen of the cases stated that the average daily fish catch doesn't exceed 10 kg nowadays. This refers to the significant decline in the fish catch in the lake currently due to the environmental degradation of the lake.

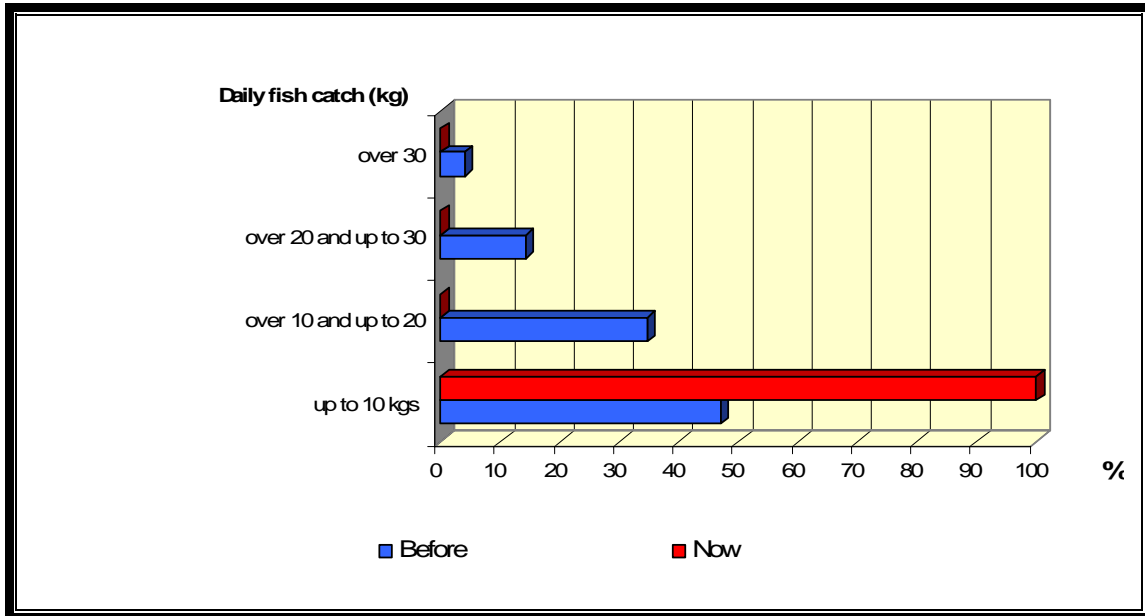


Figure (8): Change in fish catch

4. Action needed

4.1 Type of action to be undertaken

According to the 45.24% of the cases, the cleaning of the lake is the most needed action to upgrade the Lake Maryuit. Meanwhile, 14.29% of the cases thought that Lake Maryuit should be turned into a protected area. In contrast, 16.67% of the cases though that the land filling is the most suitable action needed to solve the problems of the lake (Figure 9).

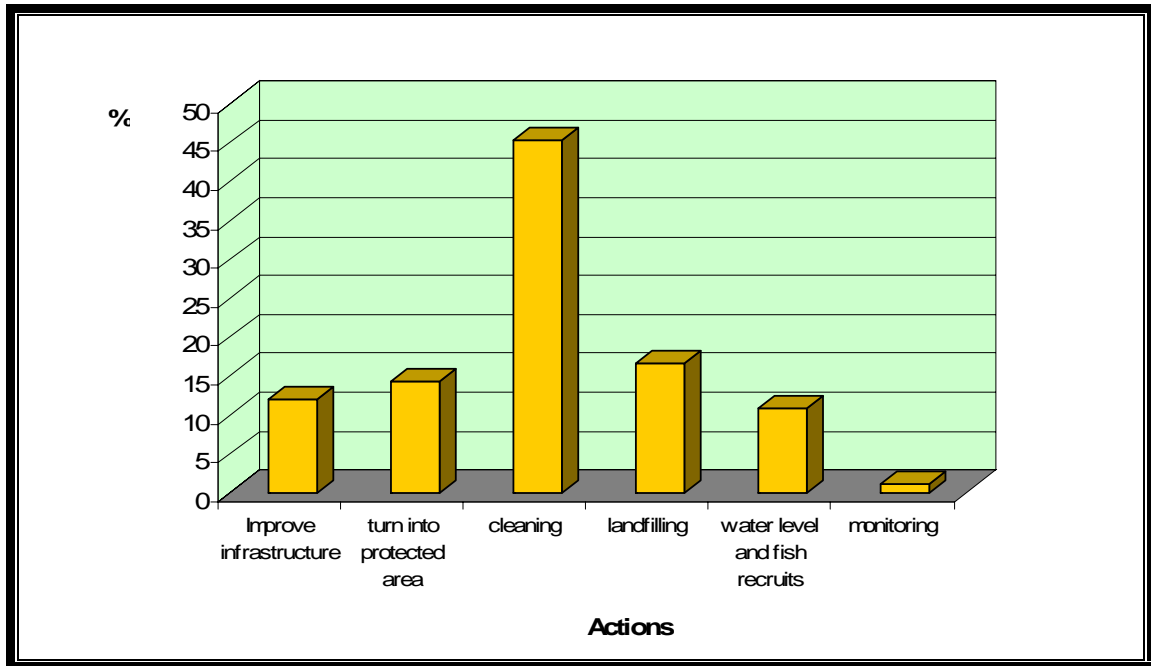


Figure (9): Type of actions to be undertaken to upgrade Lake Maryuit

It should be noted that, such contradicting actions needed expressed by the cases interviewed highlights the different and conflicting perspectives of various stakeholders.

4.2 The body responsible for needed action

Concerning the body who is responsible for implementing the needed actions to improve and upgrade Lake Maryuit, the Aqua culture authority was the main body for about 46.38% of the cases who were mostly fishermen.

Meanwhile, 30.43% of the cases thought that the local and national authorities which represented in Alexandria Governorate and Government respectively were the main bodies that are responsible for undertaking the needed actions (Figure 10).

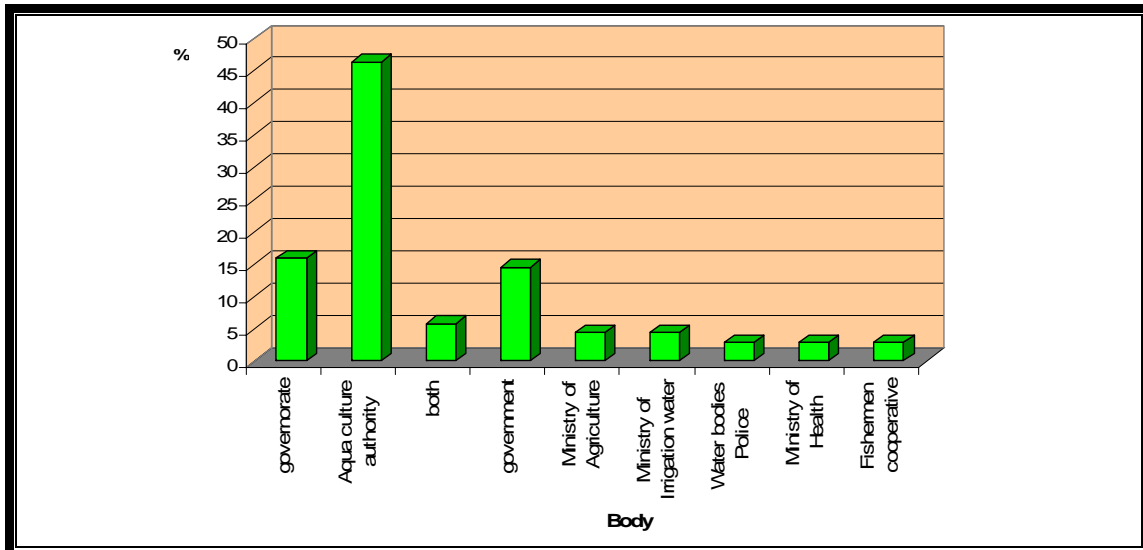


Figure (10): The body responsible for needed action

It should be noted that the Ministry of Environment is missing despite its role as one of the main stakeholders in the case of lake Maryuit.

5. Conclusion

In general the preliminary socioeconomic assessment highlights that the Impacts on farmers seem to be insignificant and thus could be eliminated from the field survey. Moreover, the local residents of the area of Lake Maryuit have low level of awareness about the lake and its deteriorating conditions.

Also, it was noted that there is conflict between authority and ability to act, e.g. Aqua Culture Authority and Ministry of Water Irrigation.

More attention will be devoted also to the Economic valuation, though the lake is expected to be undervalued, e.g. 17% of cases preferred land filling as the best alternative. The economic valuation of the environmental deterioration in Lake Maryuit, would include estimate of value the loss in fish production, cost of worsening health conditions of the residents, value of acre of wetlands (using vegetation cover for animal feeding) and value of leisure (enjoying).

Moreover, further analysis should be emphasized on assessing the role of women in the economies of the area and identifying the main groups that

are mostly affected by the deterioration of the environmental conditions in the area and analyzing the poverty incidence in the area.