

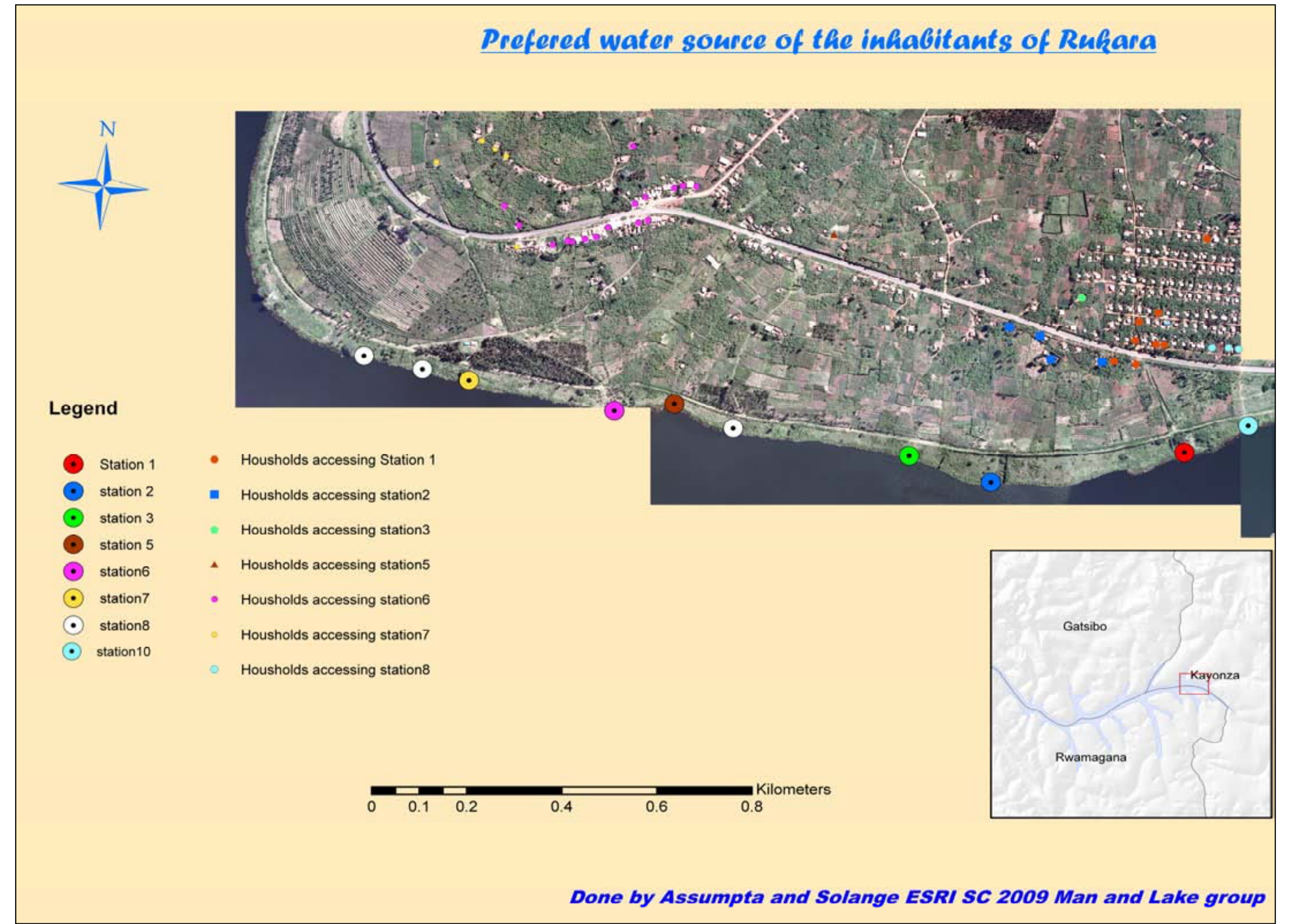
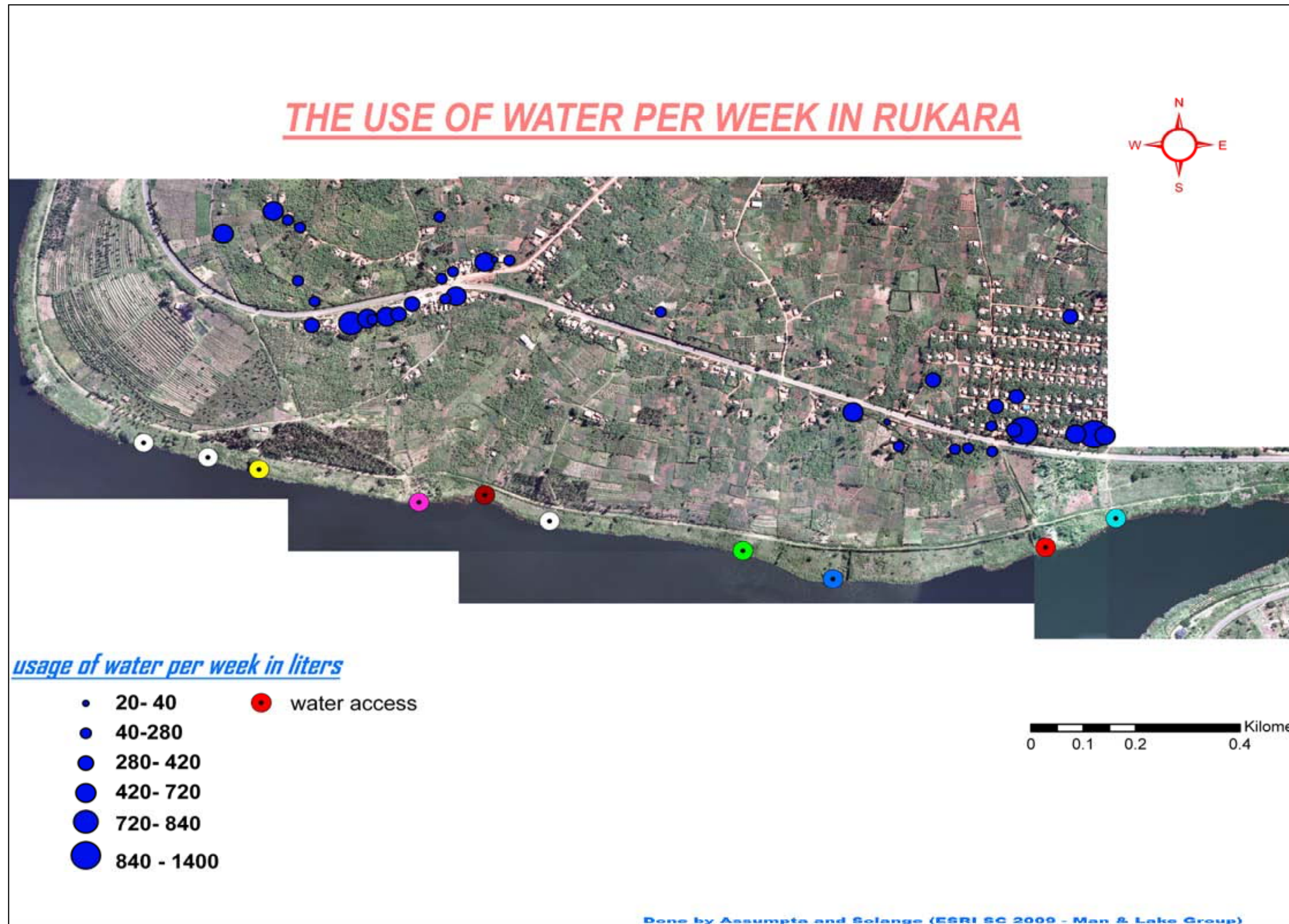
Group 4 – Man and Lake

Field methodology:

As a basis of the fieldwork we were looking for water stations that we mapped on the field. Water stations are places where people take out water of the lake. Afterwards we interviewed the people who are using this water with a questionnaire. For filling in this questionnaire we went from household to household. People gave us information (among other things) about which water source they access, where they live, the size of the jerrycan they use and the frequency they go to a specific watersource. In the field the spatial information was mapped on printed black and white maps.

GIS methodology:

After collecting data on the field, we made different maps corresponding to the collected data using ESRI software. As a basis for the GIS analysis we had an orthophoto of the Rukara region showing Butimba and Karambo imidugudu, the water source, the washing stations as well as the households using this water (this data was collected during the fieldwork) and the questionnaires containing the answers of the interviewees. After joining the data of the questionnaires to the location of the households we turned non spatial information into spatial information. From now on we had new attributes available for mapping.

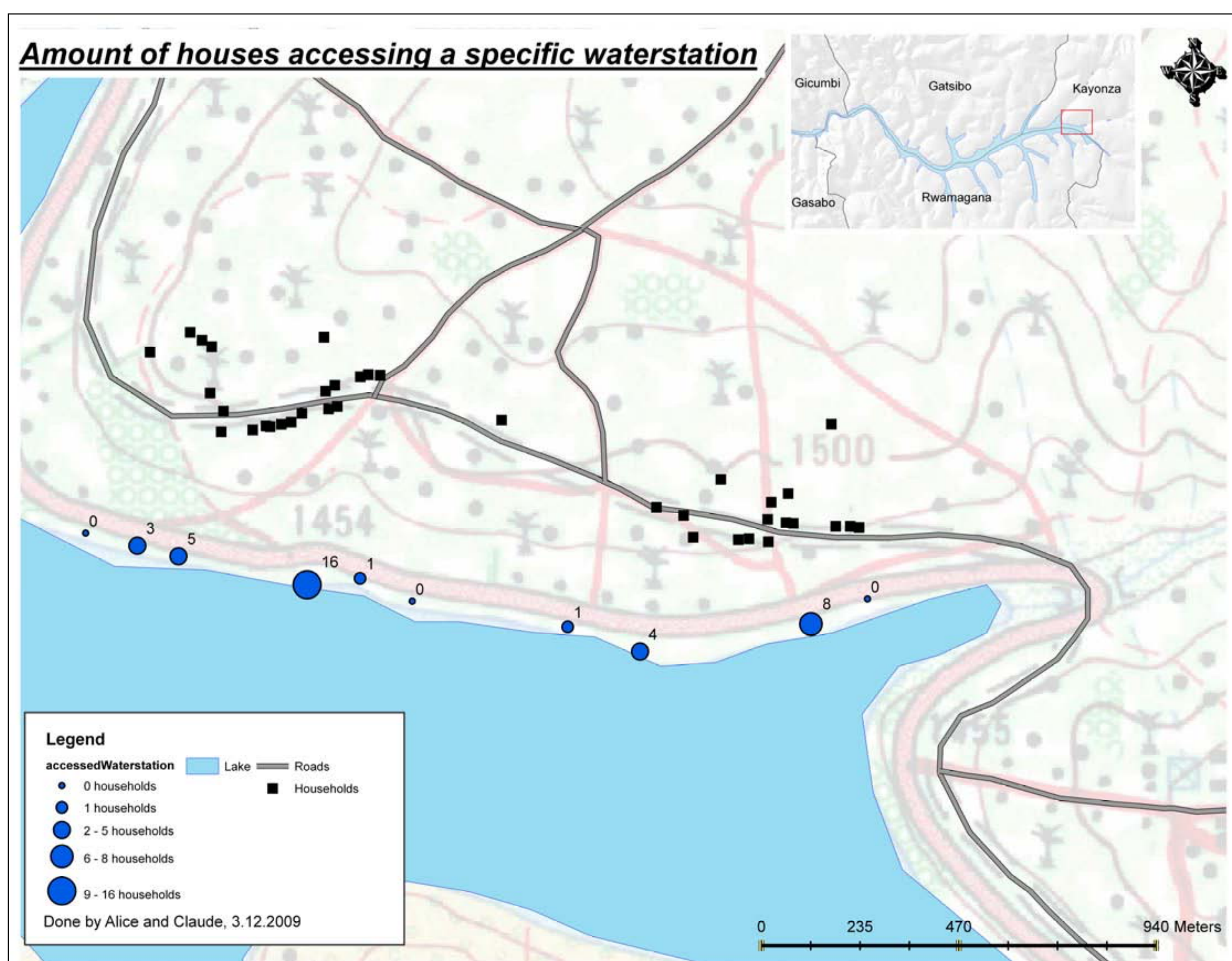


Result and Interpretation of the map "preferred water source of the inhabitants of Rukara"

On the map the color of the household is the same like the one from the water source. Household accessing the same water source have also the same form in the symbology. For this reason we can link the household with the water source. As a conclusion we say that water stations close to many houses are used more frequently.

Results and Interpretation of the map "the use of water per week in Rukara"

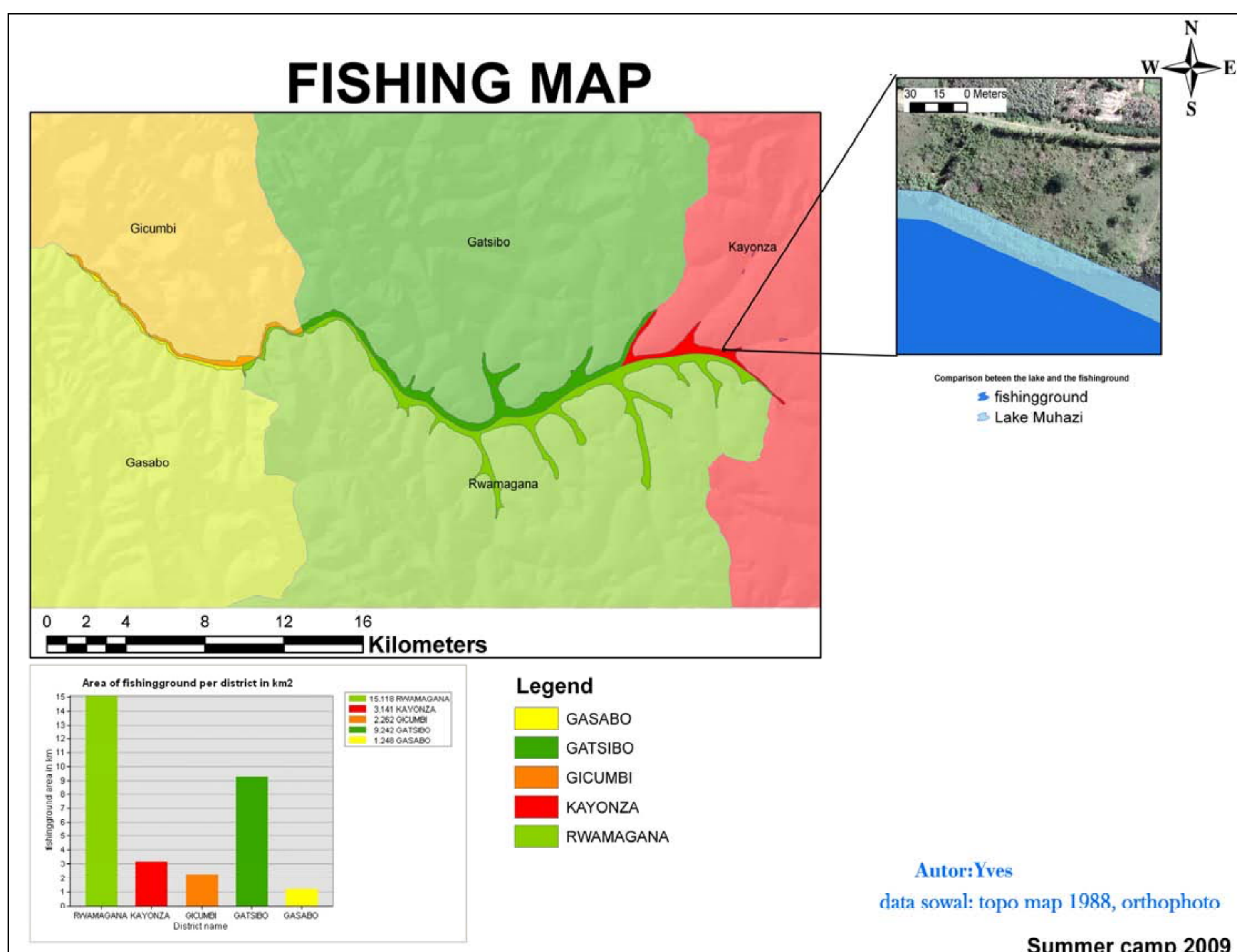
Generally we can say that there is no spatial pattern according to the water usage. The water usage depends on the purpose of the water. For example someone who owns a cow has to use eight jerrycans per day to feed it. In contrary someone who uses the water for washing and cooking uses only around two jerrycans per day.



Result and Interpretation of the accessed water stations:

The result is a map showing the elements like the water station accessing the lake water as well as the households using this water.

In map you can see circles showing the number of households which access the water station. As a conclusion we can say that people living on the shore of lake Muhazi access the waterstation which are close to their house in order to avoid carry the jerrycan over a long distance.



Results and Interpretation of the map "fishing ground per district":

This map shows which fishing areas belong to which district based on the information that in the first 15 meters from the shoreline fishing is prohibited. These 15 meters are used to protect the spawning grounds for the fishes living in the lake. The diagram shows us which district has the biggest fishing grounds on the lake Muhazi.

Out of the diagram we can see, that Rwamagana has the biggest fishing ground. In this fishing ground the fishermen told us they catch during the wet season 5 - 10 kilograms (in the dry season they catch 15 - 20 kilograms per day).

General conclusion of the group Man and Lake:

At the moment we think that people do not understand why they should protect the shoreline of lake Muhazi although it is in the interest of the Rwandan people. We also think that people in Rukara region should be informed that the need to boil the water before they drink the water. The waterusage depends on the purpose and the closest waterstation is accessed by the people

For the fisherman it is important that they fish the predator fishes to protect the whole fishpopulation. It is important that there is a break in fishing, that the population can regenerate.

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