

Changes of the nitrogen pollution problem accompanying human work from the field survey example by LHG of Hosei Univ.

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1 Introduction

In Hosei University, the field survey has been continued from the viewpoint of "water [accompanying human work] environmental" change in various areas in and outside the country.

From signs that water pollution progresses at the high-growth era of the 1950-1960s, The observation result obtained by just busying oneself with human-wave tactics by the development of laws centering on Water Pollution Control Law after the 1970s to the present condition complicated from the relation between the time improved quickly and various public works after that, etc. is left behind.

2 Water Pollution of City Region, and Nitrate Nitrogen Contamination

Taking advantage of what Dr. Mitsui succeeded for underground water survey record of Musashino Plateau where Dr. Shin-kichi Yoshimura was investigated energetically in the 1930s, after that, investigation of the groundwater, springwater, and river water of this area was continued repeatedly, and many students summarized the result as a graduation thesis and master's thesis, and have announced also at the society.

These days, as a part of Ministry of Education, Culture, Sports, Science and Technology scientific frontier promotion enterprise "research on reproduction of the waterside space in a city", over 2004- 2007, the field survey for the wide range area of the metropolitan area is performed, and it is collecting into "the water environment of the city zone" (2005), etc.

Although Moriki etc(2009). who were especially summarized about the Shingashi river based on continuous results of an investigation are the main results, it is the mere part which is dedicated by the paper and it is a subject how huge search record will be utilized from now on. It is clear that the nitrate nitrogen accumulated into groundwater over many years has had big influence on the water quality of river water. The nitrogen problem has changed from remarkable concentrated contamination to field contamination and concentrated contamination in the different form has also been tackled.

Changes of the nitrogen pollution problem are summarized based on those examples.

3 Big River Basin

About the big river basin, it is divided roughly into the research on what was advanced as part of the database research by the workgroup in two or more societies (especially the association of Japanese Geographers), and the small basin standard physical unit GIS material-recycling model construction for basin management from classic and comprehensive investigation.

1) water environmental database

2) The joint research about Nogawa with the Oka laboratory of civil engineering and Onodera laboratory of Hiroshima Univ.

I think that it is utilizable for nitrogen problem analysis.

4 Peninsula, Island, and Agricultural Area

In an agricultural area, research which arrives at the present condition and the measure against the nitrogen contamination according to the land use and fixture situation has been advanced to the Lords, such as a peninsula and an island. As an area, they are Boso Peninsula, Miura Peninsula, the Shimabara peninsula, Ishigaki Island, Miyako Island, etc. If there continues to be an opportunity, I would like to continue, since a concrete and dense result is obtained although the periodical observation for grasping seasonal change and the burden of fixture investigation are heavy.

5 Conclusion

Although the Ministry of Environment added nitrate nitrogen and nitrous acid nitrogen to the environmental standards item concerning water pollution in 1999 and regulation was begun, the excess rate of environmental standards is projected and industrial, administrative and academic sectors people's cooperation and collaboration are called for. I would like to also examine the problem of the countermeasures-against-groundwater-contamination promotion plan by national nitrate and nitrous acid nitrogen, and to continue the continued argument.

Keywords: nitrogen pollution problem, high-growth era, water pollution, environmental standards, public works, geographical information system