International Symposium on Sustainable Urban Environment (ISSUE 2017).

Tezpur University, Assam, 23-24 June, 2017

**Development of ……..title of the abstract**

Author1\*, Author2, Author3 and Author4

1Department of Environmental Science, Tezpur University, Assam 784028.

2 Research Center for Water Environment Technology, School of Engineering, The University of Tokyo, Tokyo 113-8656.

\*E-mail: ----------------of corresponding author

**Abstract**

Column leaching experiments -------------------------------------------------------------------------------------------NOT MORE THAN 2 PAGES-----------------------------------------------------------FOLLOW THE EXACT TEMPLATE------------------------------------------------------------------------------------------------------------------------------------------- ---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------ of feed water i.e. ARR. Zn concentration sources like urban infiltration facilities.

**Keywords:** *Column leaching; Sequential extractions; 3 to 5 key words*

**1. Introduction**

Urban areas require artificial infiltration facilities (AIF) to enhance groundwater recharge ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- -------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- -------------------------------------------------------------------------------------------------------------------

-------------------------------------------------------------------------------------------------- ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------ the groundwater of many mega cities seek much attention due to their common occurrence, toxicity and diffuse pollution sources. Henceforth, the current study aims to first understand the heavy metal sorption properties of soil/sediment using an integrated analytical approach for column leaching experiment, and then differentiate the sorption pattern among different samples.

**2. Material and methods**

Study takes into account of three types of samples i.e. surface soil, underlying soil (depth >1.0m) ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------ ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------ d dust and pure water (L/S=25), was used as leaching solution to mimic actual condition of urban runoff received by AIF. Leachates were collected

**3. Results and discussion**

Total metals observed (Fig 1 &2) ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------ (Fig. 1).

Figure 1. A comparison of total zinc content in different soil and sediment before and after leaching.



Figure 2. A comparison of total Pb content in different soil and sediment before and after leaching.

------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------with some exceptions. It can be argued that both leaching and retention ultimately leads to sorption of labile pool of metals (first three fractions).



Figure 3. Leaching profile of 30 days leaching for zinc in eluates showing distinct retention and leaching periods.

A ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------- ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**4. Conclusions**

The result indicates ------------------------------------------------------------------------------------with changing environmental conditions in AIF.

**5. References**

Journal

[1]Hossain, M.A., Furumai, H., Nakajima, F. and Aryal R.K. 2007. Heavy metals speciation in sediment accumulated within an infiltration facility and evaluation of metal retention properties of underlying soil, Water Science and Technology, 56 (11), 81-89.

[2]Reference 2.

[3]Reference 3