

# EFFECT OF FLYASH AND COAL RESIDUE POLLUTANT ON FLORISTIC COMPOSITION AND BIOLOGICAL SPECTRUM OF GRASSLAND OF DISTRICT BALRAMPUR

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**ABSTRACT:** Balrampur is fast developing industrial city during last few decades. Balrampur is located in tarai of Indo-Nepal of Devi Patan Division. It is provided with sugar factory, distillery, fertilizer industry and township provides a number of habitats. The impact of Fly ash on the grassland species near the Balrampur sugar factory reveals that the herbs, sedges and grasses growing in the vicinity of factory were completely covered with polluted particles (polluted grassland), while Vishnapur village (5 km away from the factory) fly ash deposition was not found on plants (unpolluted grassland). The floristic composition changes from polluted to unpolluted grassland due to polluted water deposition. Maximum number of species was recovered in rainy and minimum in summer seasons both in polluted and unpolluted grasslands of the 44 species present at both the sites 13, 4, 7 and 20 species belonged to grass, sedge, legume and non-legume herbs respectively. Biological spectrum indicate the preponderance of therophytes followed by geophytes and chamaephytes respectively, thus exposed to thero-chameophytes phyto climate. The IVI values suggest that *Dactyloctenium indicum*, *Cynodon dactylon*, *Eragrostis tenella*, *Tridax procumbens* *Parthenium hysterophorus*, *Cyperus rotundus*, *Elytaria acaulies*, *Euphorbia hirta* and *Cassia tora* are supposed to be pollution resistant in village Balrampur grasslands.

**Key Words :** Pollutant, flyash, grassland, life form, biological spectrum, importance value index (IVI).