

## ABBREVIATION

AQUASTAT	FAO's Global Information System on Water and Agriculture
GIS	Geographical Information System
IDW	Inverse Distance Weighted
DW	Dug Well
MOJS-DDWS	Ministry of Jal Shakti, Department of Drinking Water & Sanitation
SWDC	State Water Data Centre
CGWB	Central Ground Water Board
GWSSB	Gujarat Water Supply and Sewerage Board
GWRDC	Ground Water Resources Development Corporation
Fbgl	Feet Below Ground Level
Mbgl	Meters Below Ground Level
Amsl	Above Mean Sea Level
TDS	Total Dissolved Solids
TH	Total Hardness
GWQI	Groundwater Quality Index
PCA	Principle Component Analysis
HCO <sub>3</sub> <sup>-</sup>	Bicarbonate ion
Mg <sup>2+</sup>	Magnesium ion
Ca <sup>2+</sup>	Calcium ion
TH	Total Hardness

EC	Electrical conductivity
Na <sup>+</sup>	Sodium ion
Cl <sup>-</sup>	Chlorine ion
SO <sub>4</sub> <sup>2-</sup>	Sulphate ion
K <sup>+</sup>	Potassium ion
pH	Potential of Hydrogen
NO <sub>3</sub> <sup>-</sup>	Nitrate
CA	Cluster Analysis
FA	Factor Analysis
AHP	Analytical Hierarchy Process
HCA	Hierarchical cluster analysis
MLP	Multi-Layer Perceptron (Command in Python)
MLPRegressor	Multi-layer Perceptron regressor (Command in Python)
ReLU	Rectified linear activation function (Command in Python)
WQI	Water Quality Index
F <sup>-</sup>	Fluoride ion
Cr	Chromium
Zn	Zinc
Cu	Copper
Mn	Manganese
Fe	Iron

Ni	Nickel
Pb	Lead
Cd	Cadmium
ALK	Alkalinity
BIS	Bureau of Indian Standards
SAR	Sodium Adsorption Ratio
PI	Permeability Index
WHO	World Health Organization
CDI	Chronic Daily Intake
HQ	Hazard Quotient
CRA	Contamination Risk Assessments
HHRA	Human Health Risk Assessment
USEPA	United States Environmental Protection Agency
HI	Hazard Index
ME	Mean Error
Ag-MAR	Agricultural Managed Aquifer Recharge
MAE	Mean Absolute Error
RMSE	Root Mean Square Error
RRM	Relative Risk Models
MCDA	Multicriteria Decision Analysis
MSME	Ministry of Micro, Small and Medium Enterprises

GTS	Ground Truth Study
LULC	Land use Land Cover
ANN	Artificial Neural Network
D	Depth to water table
R	Recharge
A	Aquifer Media
S	Soil Media
T	Topography
I	Impact of Vadose zone
C	Hydraulic Conductivity
FS	Factor-Score
EI	External Influence
PD	Percentage Deviation
CR	Consistency Ratio
APHA	American Public Health Association
PHYTO	Phyto Remediation
PAT	Pump and Treat
PAF	Pump and Fertilizer
SEDAC	Socio Economics Data and Application Centre
PRB	Permeable Reactive Barrier
CHEM	Chemical Reduction
GWT	Ground Water Table

IC	Initial Cost
OMC	Operation and Maintenance Cost
RT	Remediation Time
RR	Removal Rate
AM	Aquifer Material
LSC	Location Specific Characteristics
CL	Contaminant Loading
DEM	Digital Elevation Model