Definition and Acronyms of National Emission Factor Database

Allometric Equation Dataset

Acronym	Description	Type
Age	Age of the population considered in the experiment (years)	Numeric
B	Dry biomass indicator. A value of 1 indicates the mass of the component is the dry weight as opposed to fresh weight.	Numeric
BA	Basal area: Stem cross-sectional area at DBH (1m30 height)	Numeric
Bd	Dead Branches. A value of 1 indicates the database row belongs to this component.	Boolean
Bg	Gross Branches. A value of 1 indicates the database row belongs to this component.	Boolean
Bias_correction	Value of CF, to correct for potential underestimation resulting from back-transformation of logarithmic predictions to arithmetic units. Write "None" when there is no "CF".	Numeric
Bioecological_zones_Bangla desh_IUCN	Nishat, A., Huq, S.I., Barua, S.P., Reza, A.H.M.A. and Khan, A.M., 2002. Bio-ecological zones of Bangladesh. The World Conservation Union (IUCN), Dhaka, Bangladesh, 141.	Text
Bt	Thin Branches. A value of 1 indicates the database row belongs to this component.	Boolean
C	Circumference at 1.3m	Numeric
Contact	Contact information	Text
Contributor	Name of the institution who worked on entering data in the database.	Text
Corrected_for_bias	A "1" value in this column means that the original author developed and reported a correction factor to compensate for the potential underestimation resulting from backtransforming logarithmic predictions to arithmetic units, as suggested by Baskerville (	Numeric
DBH	Diameter at breast height	Numeric
Density	Density of the wood in g/cm3	Numeric
District	Bangladesh Division name where the data have been collected	text
Equation	The allometric equation with variable symbols	Text
F	Fruits. A value of 1 indicates the database row belongs to this component.	Boolean
Family	Name of the Taxonomic family to which the tree species belongs	Text
Genus	Name of the genus in the binomial literature in a Latin grammatical forms.	Text
Group_Location	1 means the equations was developed based on samples from different geographic locations	Boolean
Group_Species	Write "1" when an allometric eq. refers to a group of species.	Boolean
H	Height	numeric
ID_AE	Identification number of the allometric equation	Numeric
ID_Location	Identification number of the location	Numeric
ID_Location_group	Identification number of the location group	Numeric

Acronym	Description	Type
ID_RD	Identification number for the raw data value	numeric
ID_Species	Identification number of the species	Numeric
ID_Species_group	Identification number of the group species	Numeric
L	Leaves. A value of 1 indicates the database row belongs to this component.	Boolean
Label	Identification number of the pdf/word copy of the article in your library.	Numeric
Latitude	Latitude of the plot expressed in decimal degrees	Numeric
Location	Location corresponds to the name of the place where the equation was developed It can be a precise location (city, village..) or a geographical area	Text
Longitude	Longitude of the plot expressed in decimal degrees	Numeric
Max X	It is the maximum X value	Text
Max_Z	It is the maximum Z value	Text
Operator	Name of the operator who entered the data	Text
Output	Output variable	Text
Output_TR	The output of the equation can be expressed in the Log(Y) or in the arithmetic value of Y, in which case you don't specify anything. When the result of the equation is a logarithm you have to specify if it is a natural logarithm (Log) or a logarithm to ba	Text
Population	Individual tree, sprout or stand	Text
2	Coefficient of determination of the equation	Numeric
R2_Adjusted	This is an adjustment of the R-squared that penalizes the addition of extraneous predictors to the model. Adjusted R-squared is computed using the formula 1 -((1 - R2)((N - 1) /(N - k - 1)) where k is the number of predictors.	Numeric
Ratio_equation	Some authors present methods for predicting the biomass of the merchantable stem to a user-defined top diameter. A "1" value in this column means that a separate ratio equation was presented by this author	Numeric
Rb	Big Roots. A value of 1 indicates the database row belongs to this component.	Boolean
Reference	Authors, year of publication, title of issue, journal, volume number, number of the issue, pages	Text
Reference author	Name of the author name(s)	text
Reference_year	Year of publication of the document	Numeric
Rf	Fine Roots. A value of 1 indicates the database row belongs to this component.	Boolean
Rm	Medium Roots. A value of 1 indicates the database row belongs to this component.	Boolean
RMSE	Root-mean-square deviation or error of the equation	Numeric
S	Stump. A value of 1 indicates the database row belongs to this component.	Boolean
Sample_size	Number of plants measured to obtain the equation	Numeric
SEE	Standard error of the mean of the equation	Numeric
Species	Name of the species in the binomial literature in the Latin grammatical form.	Text
Species_author	Name of the author of the species name	Text
Species_local_name_iso	Species name in Bengali	Text
Species_local_name_latin	Species name in latin characters	Text

Acronym	Description	Type
Subspecies	Name of the sub species (if any)	Text
T	Trunk. A value of 1 indicates the database row belongs to this component.	Boolean
Top_dob	For equations that include a portion of the merchantable stem. Top d.o.b. describes the minimum diameter in cm, outside bark (d.o.b.) of the top of the merchantable stem	Numeric
Tree_type	Description of the tree type (Liana, Palms, Seedling, Shrub, Sprout, Tree and Tree fern etc.)	Text
U	Independent variable	Text
Unit_U	Unit measure (mm, cm, cm2, cm3, dm, gcm-3, m, m2...).Always keep the unit of measurement reported by the author	Text
Unit_V	Unit measure (mm, cm, cm2, cm3, dm, gcm-3, m, m2...).Always keep the unit of measurement reported by the author	Text
Unit_W	Unit measure (mm, cm, cm2, cm3, dm, gcm-3, m, m2...).Always keep the unit of measurement reported by the author	Text
Unit_X	Unit measure (mm, cm, cm2, cm3, dm, gcm-3, m, m2...).Always keep the unit of measurement reported by the author.	Text
Unit_Y	Unit measure of Y (e.g. cm3, dm3, m3, m3/ha, g, kg, Mg, kg/ha, Mg/ha...).	Text
Unit_Z	Unit measure (mm, cm, cm2, cm3, dm, gcm-3, m, m2...). Always keep the unit of measurement reported by the author	Text
V	Above ground volume of a tree or a forest area	Numeric
W	Independent variable	Text
X	Independent variable (see below). e.g.: BA (basal area, the cross-sectional area of the stem at breast height), Bd (diameter at soil), Bd5 (diameter at 5 cm from soil), C (circumference at breast height), Cb (circumference at soil), Cd5 (circumference at	Text
Z	Independent variable	Text
Zone FAO	GEZ_TERM in the shapefile	Text
Min_age	Minimum age in years	numeric
Max_age	Maximum age in years	numeric
Av_age	Average age in years	numeric
Top_girth_over_bark	The girth measured over the bark	numeric
Equation_VarNames	The allometric equation with variable names	Text
Mean_X	Mean of the independent variable X	Text
Mean_Z	Mean of the independent variable Z	Text
Mean_W	Mean of the independent variable W	Text
Min_W	Minumum of the independent variable W	Text
MSE	Mean square error of the allometric model	Text
AIC	Akaike information criterion estimate for the allometric model	Text
SE_(Y)	Standard error of the dependent variable Y	Text
Max_W	Maximum of the independent variable w	Text

Wood Density Dataset

Acronym	Description	Type
Bark	is the bark included in the measure?	Boolean
Bark distance	Distance where the WD was collected	Numeric
Bioecological_zones_Bangla desh_IUCN	Nishat, A., Huq, S.I., Barua, S.P., Reza, A.H.M.A. and Khan, A.M., 2002. Bio-ecological zones of Bangladesh. The World Conservation Union (IUCN), Dhaka, Bangladesh, 141.	Text
Contact	Contact information	Text
Contributor	Name of the institution who worked on entering data in the database.	Text
Convert_BD	0.861*Density if density is at 10 to 18%	Numeric
CR	Crown radius	Numeric
CR	Coefficient of retraction (%/%)	Numeric
CV	Canopy volume	Numeric
CV	SD/Density if Density is an average	Numeric
Data_origin	Calculated or entered from biblio	Text
Data_type	Unique value, average of data, average of min max	Text
DBH_tree_avg	Average DBH of tree measured	Numeric
DBH_tree_max	Max of trees' DBH measured if several trees where sampled	Numeric
DBH_tree_min	Min of trees' DBH measured if several trees where sampled	Numeric
Density_airdry	Wood density for air dry wood density sample in grams/cubic centimeters	Numeric
Density_green	Wood density for green wood density sample in grams/cubic centimeters	Text
Density_ovendry	Wood density for air dry wood density sample in grams/cubic centimeters	Numeric
District	Bangladesh Division name where the data have been collected	text
Division_Bailey	Bailey, R. G. 1989. Explanatory supplement to ecoregions map of the continents. Environmental Conservation 16: 307-309. [With map of land-masses of the world, "Ecoregions of the Continents — Scale 1 : 30,000,000", published as a supplement.] BIOMENAME in	Text
Ecoregion_Udvardy	Udvardy M. D. F. 1975. A classification of the biogeographical provinces of the world. Morges (Switzerland): International Union of Conservation of Nature and Natural Resources. IUCN Occasional Paper no. 18. DIV_DESC in the shapefile	Text
Ecoregion_WWF	Ricketts, Taylor H., Eric Dinerstein, David M. Olson, Colby J. Loucks, et al. (1999). Terrestrial Ecoregions of North America: a Conservation Assessment. Island Press, Washington DC. DESC in the shapefile	Text
Family	Name of the Taxonomic family to which the tree species belongs	Text
FSP	Fiber saturation point (%)	Numeric
Genus	Name of the genus in the binomial literature in a Latin grammatical forms.	Text
Group_Location	1 means the equations was developed based on samples from different geographic locations	Boolean
Group_Species	Write "1" when an allometric eq. refers to a group of species.	Boolean
H_measure	Height where WD sample was collected	Numeric
H_tree_avg	Average height of tree measured	Numeric

Acronym	Description	Type
H_tree_max	Max of trees' height measured if several trees where sampled	Numeric
H_tree_min	Min of trees' height measured if several trees where sampled	Numeric
ID REF	Identification number of the reference	Numeric
ID_Location	Identification number of the location	Numeric
ID_Location_group	Identification number of the location group	Numeric
ID_RD	Identification number for the raw data value	numeric
ID_Species	Identification number of the species	Numeric
ID_Species_group	Identification number of the group species	Numeric
ID_WD	Identification number of the raw data	Numeric
Label	Identification number of the pdf/word copy of the article in your library.	Numeric
Latitude	Latitude of the plot expressed in decimal degrees	Numeric
Location	Location corresponds to the name of the place where the equation was developed It can be a precise location (city, village..) or a geographical area	Text
Longitude	Longitude of the plot expressed in decimal degrees	Numeric
m_WD	Wood mass measured	Numeric
Max	Max of trees' height measured if several trees where sampled	Text
MC_Density	Moisture content, with code for specific cases	Numeric
MC_m	Moisture content of the wood during measurement	Numeric
MC_V	Moisture content of the wood during measurement	Numeric
Methodology	Name of the laboratory methodology	Text
Methodology_Airdry	Name of the laboratory methodology for wood density from an air dry sample	Text
Methodology_Green	Name of the laboratory methodology for wood density from a green sample	Text
Methodology_Ovendry	Name of the laboratory methodology for wood density from a oven dry sample	Text
Min	Min of trees' height measured if several trees where sampled	Text
Number_of_trees	Number of trees	Numeric
Operator	Name of the operator who entered the data	Text
Reference	Authors, year of publication, title of issue, journal, volume number, number of the issue, pages	Text
Reference author	Name of the author name(s)	text
Reference_year	Year of publication of the document	Numeric
Region	Name of the region where the data have been collected	Text
Remark	Any other relevant information such as silvicultural treatment, fertility class, soil description etc.	Text
Samples_per_tree	Number of sample per tree	Numeric
SD	Standard deviation	Numeric
Species	Name of the species in the binomial literature in the Latin grammatical form.	Text
Species_author	Name of the author of the species name	Text
Species_local_name_iso	Species name in Bengali	Text
Species_local_name_latin	Species name in latin characters	Text
Subspecies	Name of the sub species (if any)	Text

Acronym	Description	Type
Tree_type	Description of the tree type (Liana, Palms, Seedling, Shrub, Sprout, Tree and Tree fern etc.)	Text
V_WD	Wood volume measured	Numeric
Vegetation_type	Description of the forest type where the data have been collected (Agroforestry, Forest, Forest/Plantation, Mangrove forest, Mangrove plantation, Pasture, Plantation)	Text
Zone FAO	GEZ_TERM in the shapefile	Text
Zone_Holdridge	Holdridge L. R. 1967. Life Zone Ecology. San Jose (Costa Rica): Tropical Science Center. MHT_NAME in the shapefile	Text

Raw Dataset

Acronym	Description	Type
ABG_g	Total aboveground biomass in g. All living biomass above the soil including stem, stump, branches, bark, seeds and foliage.	numeric
ABG_kg	Total aboveground biomass in kg. All living biomass above the soil including stem, stump, branches, bark, seeds and foliage.	Numeric
B	Dry biomass indicator. A value of 1 indicates the mass of the component is the dry weight as opposed to fresh weight.	Numeric
Bd	Dead Branches. A value of 1 indicates the database row belongs to this component.	Boolean
Bg	Gross Branches. A value of 1 indicates the database row belongs to this component.	Boolean
BGB_kg	Total belowground biomass in kg	Numeric
Bioecological_zones_Bangla desh_IUCN	Nishat, A., Huq, S.I., Barua, S.P., Reza, A.H.M.A. and Khan, A.M., 2002. Bio-ecological zones of Bangladesh. The World Conservation Union (IUCN), Dhaka, Bangladesh, 141.	Text
Bt	Thin Branches. A value of 1 indicates the database row belongs to this component.	Boolean
CD_m	Crown diameter of the tree in meters	Numeric
Collar_girth	The girth at collar height	numeric
Contact	Contact information	Text
Contributor	Name of the institution who worked on entering data in the database.	Text
D_Bark_g	Dry weight of the fruit in g	numeric
D_Bark_kg	Dry weight of the fruit in kg	numeric
D_Bole_kg	Dry weight of the bole in kg	numeric
D_Branch_g	Dry weight of the branches in g	numeric
D_Branch_kg	Dry weight of the branches in kg	numeric
D_Buttress_kg	Dry weight of the buttress in kg	numeric
D_Foliage_g	Dry weight of the foliage in g	numeric
D_Foliage_kg	Dry weight of the foliage in kg	numeric

Acronym	Description	Type
D_Roots_kg	Dry weight of the buttress in kg	numeric
D_Stem_with_Bark_g	Dry weight of the stem with bark included in g	numeric
D_Stem_without_Bark_g	Dry weight of the stem without bark included in g	numeric
D_Stem_without_Bark_kg	Dry weight of the stem without bark included in kg	numeric
D_Stump_kg	Dry weight of the stump in kg	numeric
DBH_cm	Diameter at breast height of the tree in centimeters	Numeric
District	Bangladesh Division name where the data have been collected	text
Division_Bailey	Bailey, R. G. 1989. Explanatory supplement to ecoregions map of the continents. Environmental Conservation 16: 307-309. [With map of land-masses of the world, "Ecoregions of the Continents — Scale 1 : 30,000,000", published as a supplement.] BIOMENAME in	Text
Ecoregion_Udvardy	Udvardy M. D. F. 1975. A classification of the biogeographical provinces of the world. Morges (Switzerland): International Union of Conservation of Nature and Natural Resources. IUCN Occasional Paper no. 18. DIV_DESC in the shapefile	Text
Ecoregion_WWF	Ricketts, Taylor H., Eric Dinerstein, David M. Olson, Colby J. Loucks, et al. (1999). Terrestrial Ecoregions of North America: a Conservation Assessment. Island Press, Washington DC. DESC in the shapefile	Text
F_Bark_kg	Fresh weight of the bark in kg	numeric
F_Bole_kg	Fresh weight of the bole in kg	numeric
F_Branch_kg	Fresh weight of the branches in kg	numeric
F_Buttress_kg	Fresh weight of the buttress in kg	numeric
F_Foliage_and_twigs_kg	Fresh weight of the foliage and twigd in kg	Text
F_Foliage_kg	Fresh weight of the foliage in kg	numeric
F_Fruit_kg	Fresh weight of the fruit in kg	numeric
F_Roots_kg	Fresh weight of the roots in kg	numeric
F_Stump_kg	Fresh weight of the stump in kg	numeric
Family	Name of the Taxonomic family to which the tree species belongs	Text
Genus	Name of the genus in the binomial literature in a Latin grammatical forms.	Text
Group_Location	1 means the equations was developed based on samples from different geographic locations	Boolean
Group_Species	Write "1" when an allometric eq. refers to a group of species.	Boolean
H_m	Total height of the tree in meters	numeric
ID REF	Identification number of the reference	Numeric
ID_Location	Identification number of the location	Numeric
ID_Location_group	Identification number of the location group	Numeric
ID_RD	Identification number for the raw data value	numeric
ID_Species	Identification number of the species	Numeric
ID_Species_group	Identification number of the group species	Numeric
L	Leaves. A value of 1 indicates the database row belongs to this component.	Boolean
Label	Identification number of the pdf/word copy of the article in your library.	Numeric
Latitude	Latitude of the plot expressed in decimal degrees	Numeric

Acronym	Description	Type
Location	Location corresponds to the name of the place where the equation was developed It can be a precise location (city, village..) or a geographical area	Text
Longitude	Longitude of the plot expressed in decimal degrees	Numeric
Operator	Name of the operator who entered the data	Text
Rb	Big Roots. A value of 1 indicates the database row belongs to this component.	Boolean
Reference	Authors, year of publication, title of issue, journal, volume number, number of the issue, pages	Text
Reference author	Name of the author name(s)	text
Reference_year	Year of publication of the document	Numeric
Remark	Any other relevant information such as silvicultural treatment, fertility class, soil description etc.	Text
Rf	Fine Roots. A value of 1 indicates the database row belongs to this component.	Boolean
Rm	Medium Roots. A value of 1 indicates the database row belongs to this component.	Boolean
S	Stump. A value of 1 indicates the database row belongs to this component.	Boolean
Species	Name of the species in the binomial literature in the Latin grammatical form.	Text
Species_author	Name of the author of the species name	Text
Species_local_name_iso	Species name in Bengali	Text
Species_local_name_latin	Species name in latin characters	Text
Subspecies	Name of the sub species (if any)	Text
T	Trunk. A value of 1 indicates the database row belongs to this component.	Boolean
Tree_type	Description of the tree type (Liana, Palms, Seedling, Shrub, Sprout, Tree and Tree fern etc.)	Text
Veg_Component	They are the vegetation components of the plants considered in the equation	Text
Vegetation_type	Description of the forest type where the data have been collected (Agroforestry, Forest, Forest/Plantation, Mangrove forest, Mangrove plantation, Pasture, Plantation)	Text
Volume bole m3	Volume of the bole in cubic meters	Numeric
Volume_m3	Total volume of the tree in cubic meters	Numeric
WD_AVG_gcm3	Average wood density value for the hole tree in grams/cubic centimeters	Numeric
Zone FAO	GEZ_TERM in the shapefile	Text
Zone_Holdridge	Holdridge L. R. 1967. Life Zone Ecology. San Jose (Costa Rica): Tropical Science Center. MHT_NAME in the shapefile	Text

Emission Factor Dataset

Acronym	Description	Type
Age	Age of the population considered in the experiment (years)	Numeric
BasalRange(m2/ha)	The range of basal areas of the trees used for the emission factor	Text
Contact	Contact information	Text

Acronym	Description	Type
Contributor	Name of the institution who worked on entering data in the database.	Text
District	Bangladesh Division name where the data have been collected	text
EmissionFactor	The type of emission factor, either the carbon pool, volume, or wood density	Text
Family	Name of the Taxonomic family to which the tree species belongs	Text
Genus	Name of the genus in the binomial literature in a Latin grammatical forms.	Text
Group_Location	1 means the equations was developed based on samples from different geographic locations	Boolean
Group_Species	Write "1" when an allometric eq. refers to a group of species.	Boolean
H_m	Total height of the tree in meters	numeric
ID REF	Identification number of the reference	Numeric
ID_EF	Identification number of the emission factor	Numeric
ID_EF_IPCC	Identification number of the IPCC emission factor table	Numeric
ID_LandCover	Identification number of the land cover	Numeric
ID_Location	Identification number of the location	Numeric
ID_Location_group	Identification number of the location group	Numeric
ID_Species	Identification number of the species	Numeric
ID_Species_group	Identification number of the group species	Numeric
Label	Identification number of the pdf/word copy of the article in your library.	Numeric
Latitude	Latitude of the plot expressed in decimal degrees	Numeric
Location	Location corresponds to the name of the place where the equation was developed It can be a precise location (city, village..) or a geographical area	Text
Longitude	Longitude of the plot expressed in decimal degrees	Numeric
Lower Confidence Limit	The lower confidence limit of the emission factor	Text
Operator	Name of the operator who entered the data	Text
Reference	Authors, year of publication, title of issue, journal, volume number, number of the issue, pages	Text
Reference author	Name of the author name(s)	text
Reference_year	Year of publication of the document	Numeric
Species	Name of the species in the binomial literature in the Latin grammatical form.	Text
Species_author	Name of the author of the species name	Text
Species_local_name_iso	Species name in Bengali	Text
Species_local_name_latin	Species name in latin characters	Text
Subspecies	Name of the sub species (if any)	Text
Type of parameter	Indicates if the value was modeled or measured	Text
Unit	The unit of the emission factor	Text
Upper Confidence Limit	The upper confidence limit of the emission factor	Text
Value	The value of the emission factor	Numeric
Volume_m3	Total volume of the tree in cubic meters	Numeric
Bangladesh Agroecological Zone	FAO. (1988). Land Resource Appraisal of Bangladesh for Agriculture Developemnt BGD/81/035. Retrieved from Dhaka, Bangladesh:	Text

Acronym	Description	Type
BFI Zone	RIMS. 2016. Zoning for Tree and Forest Assessment in Bangladesh. Dhaka: Resources Information Management System (RIMS) unit, Bangladesh Forest Department, 56.	Text
FAO Biomes	FAO. (2012). Global ecological zones for FAO forest reporting: 2010 Update. Retrieved from Rome, Italy: http://www.fao.org/docrep/017/ap861e/ap861e00.pdf	Text