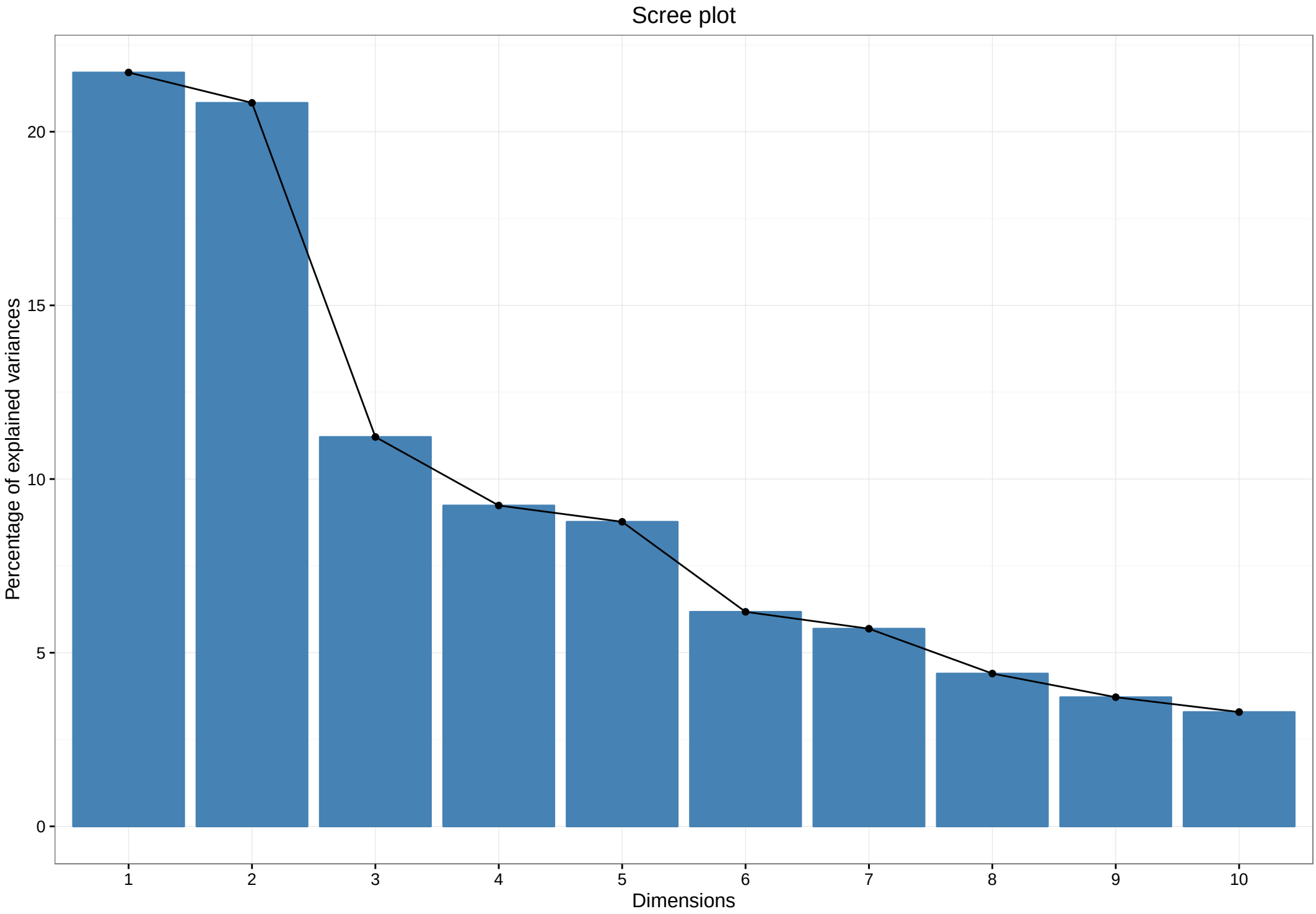
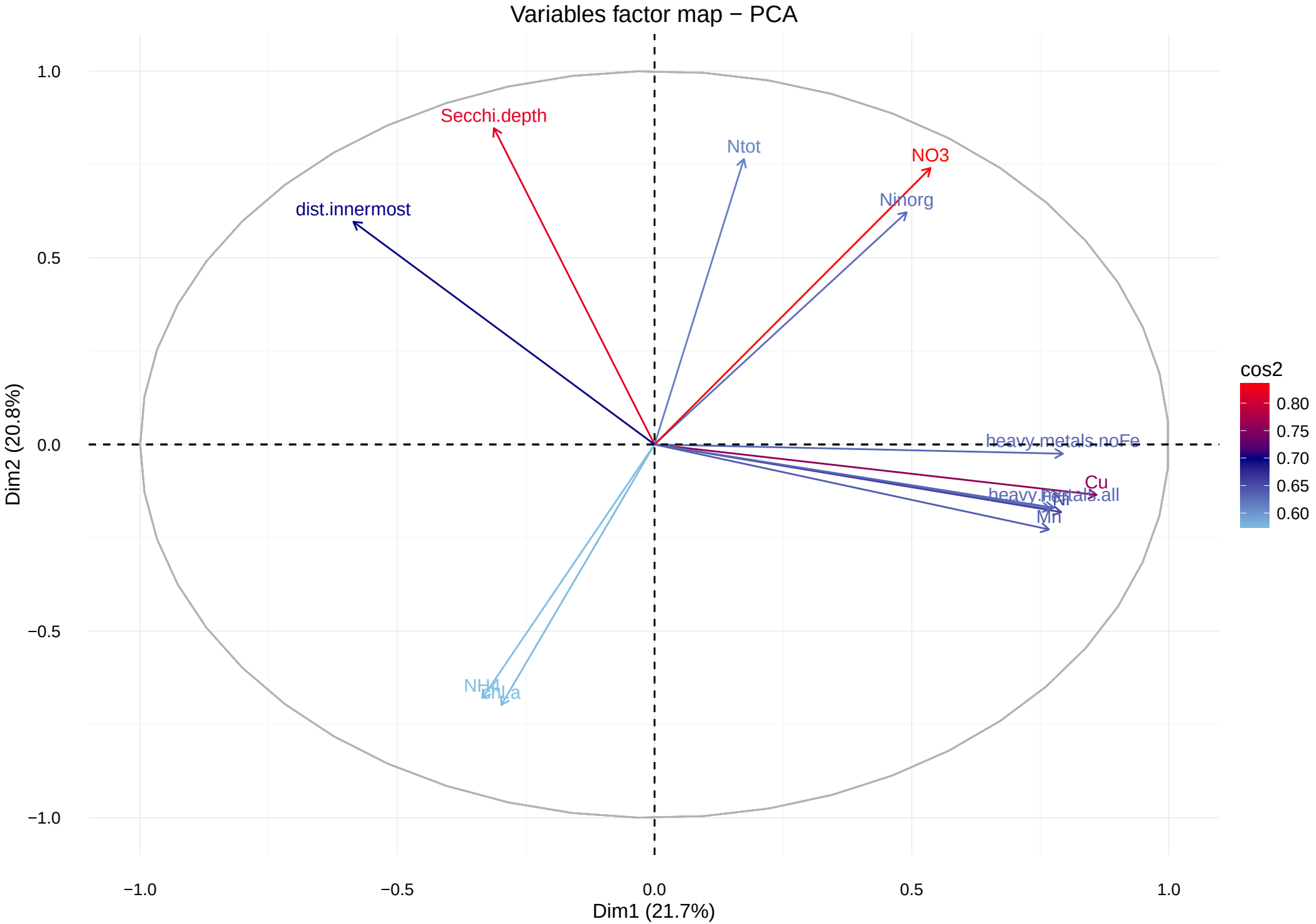
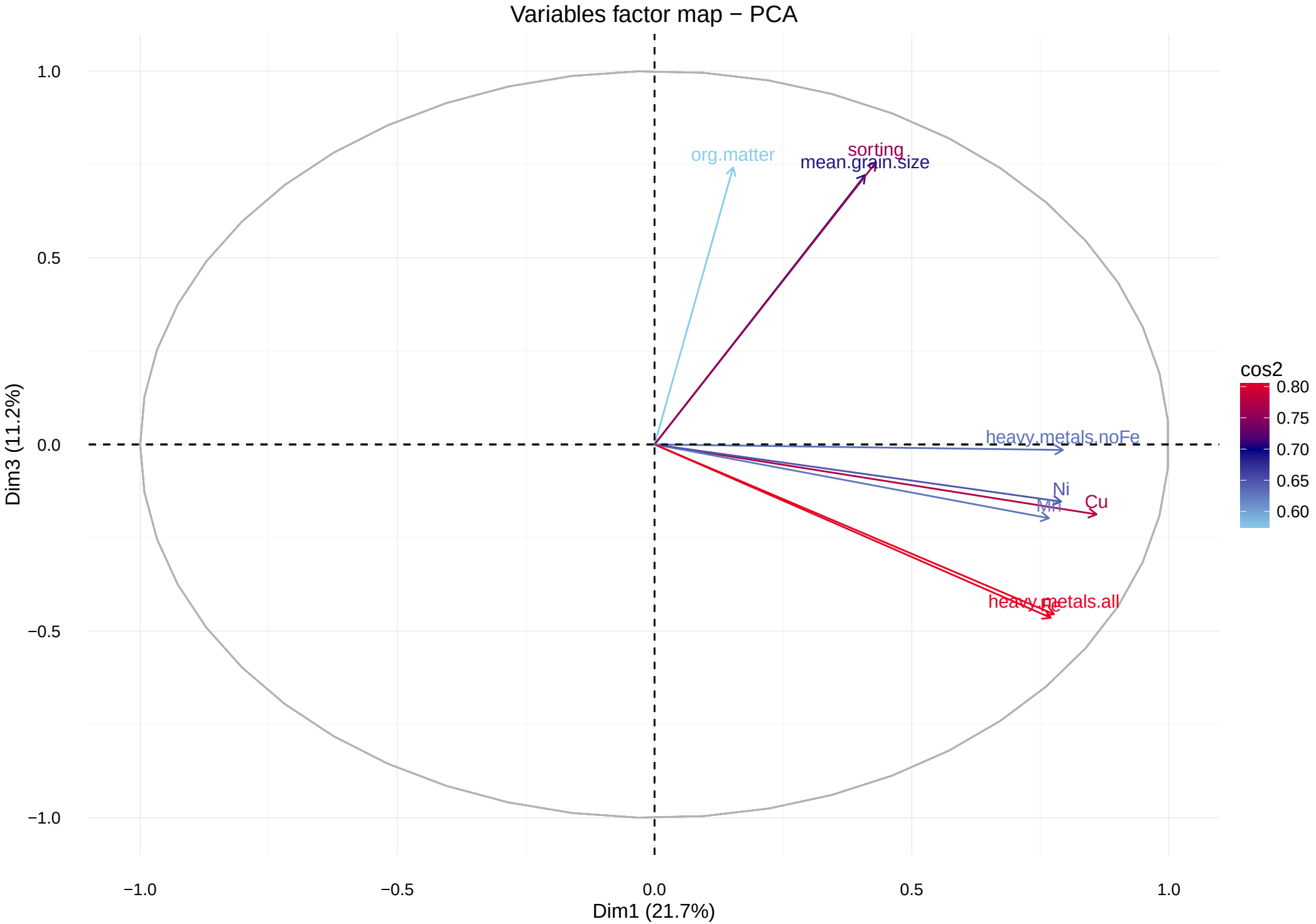
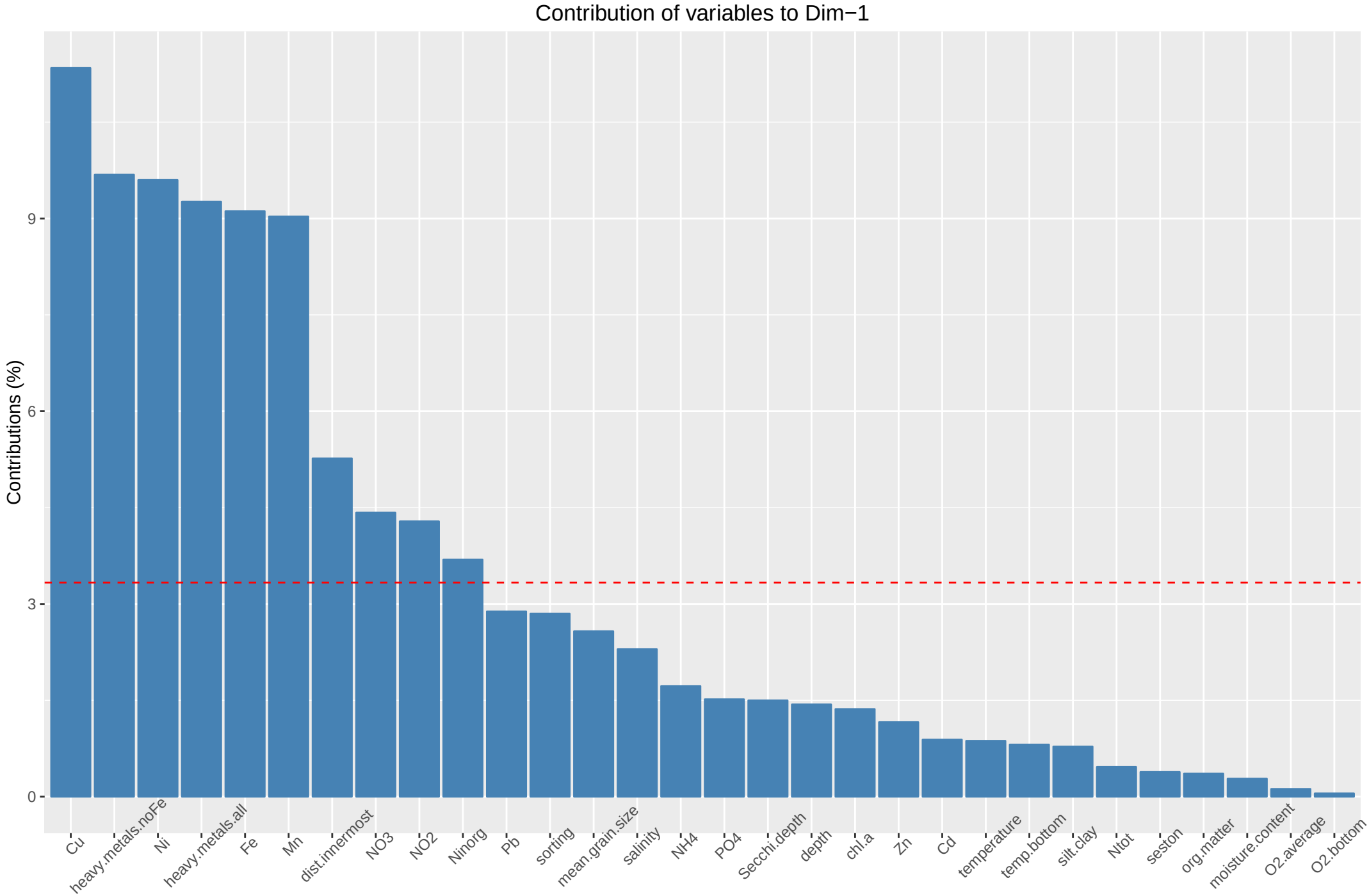
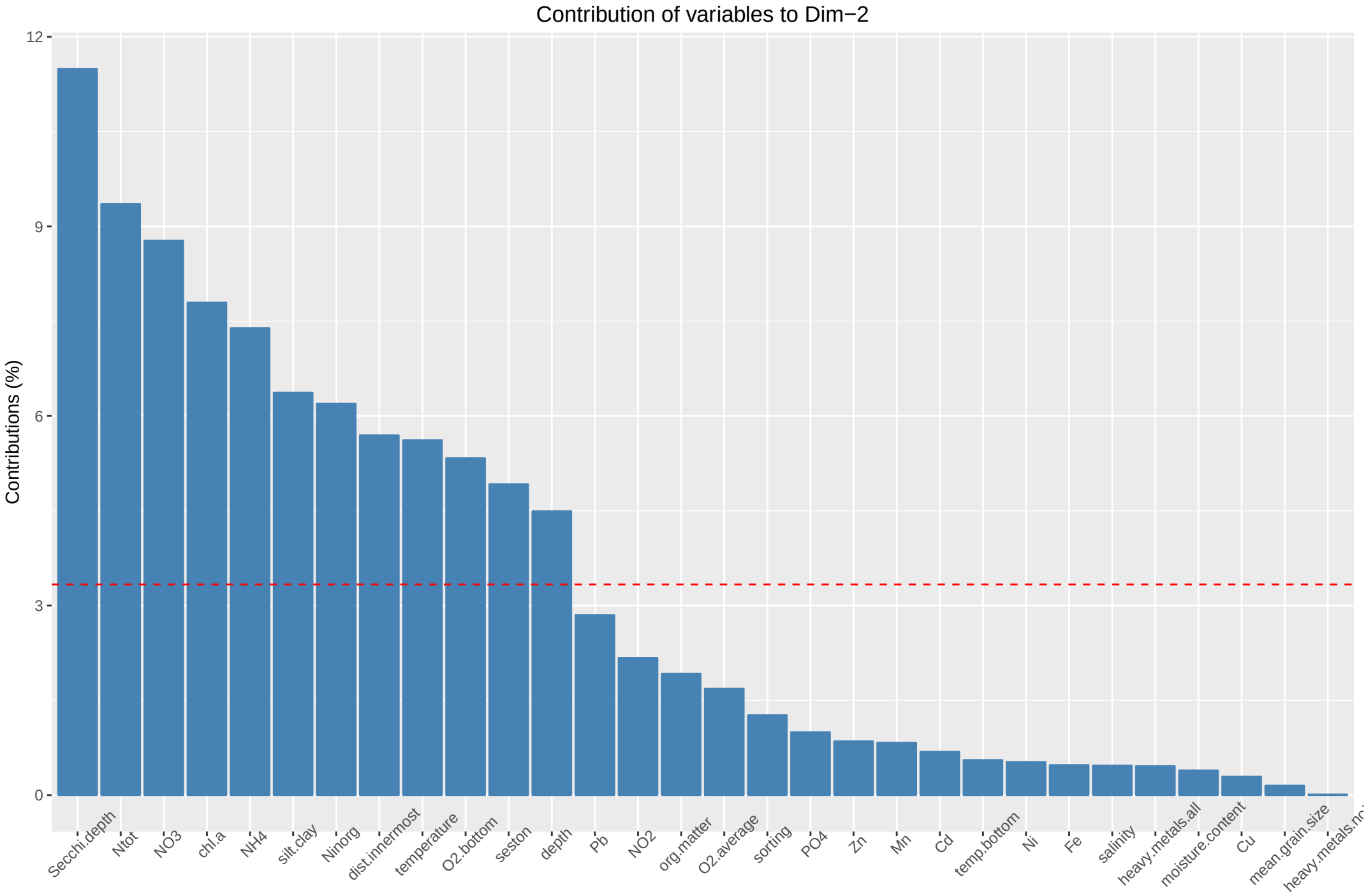
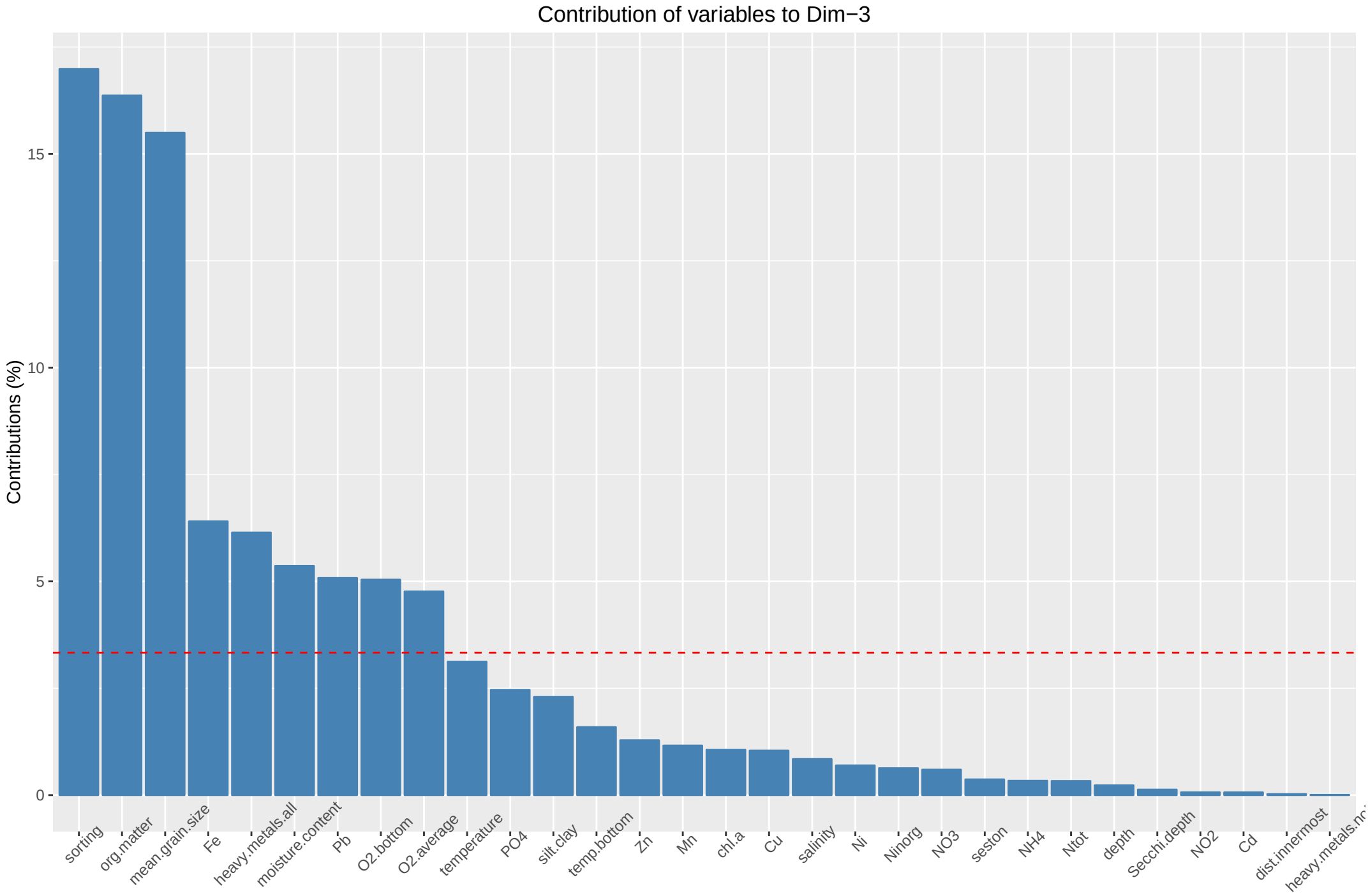

Scree plot
Percentage of explained variances
0
5
10
15
20
1
2
3
4
5
6
7
8
9
10
Dimensions

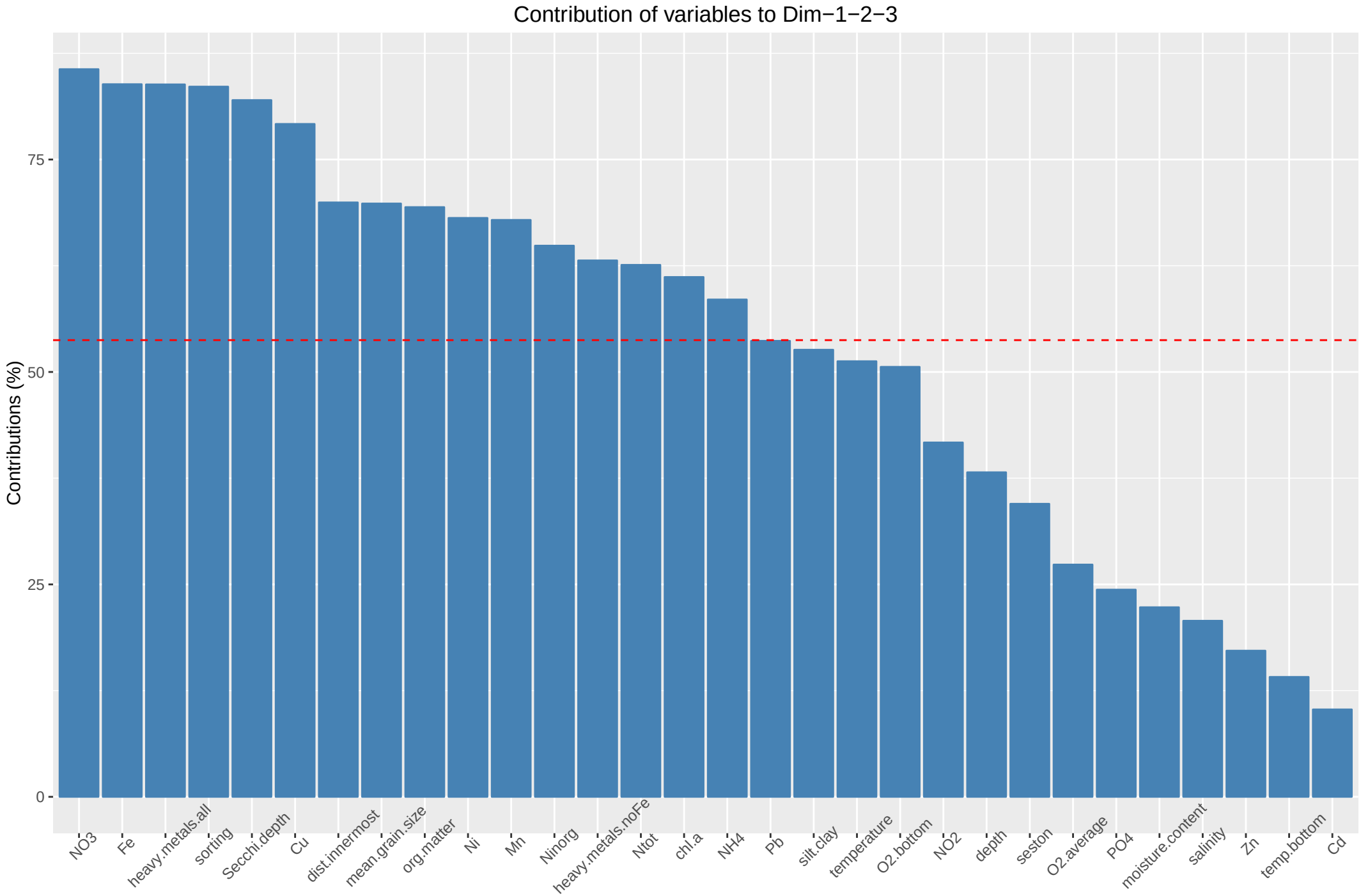

Variables factor map − PCA
Secchi.depth
Ntot
NO3
Ninorg
dist.innermost
heavy.metals.noFe
Cu
heavy.metals.all
Ni
Mn
NH4
chl.a
cos2
0.80
0.75
0.70
0.65
0.60
1.0
0.5
0.0
−0.5
−1.0
Dim2 (20.8%)
Dim1 (21.7%)

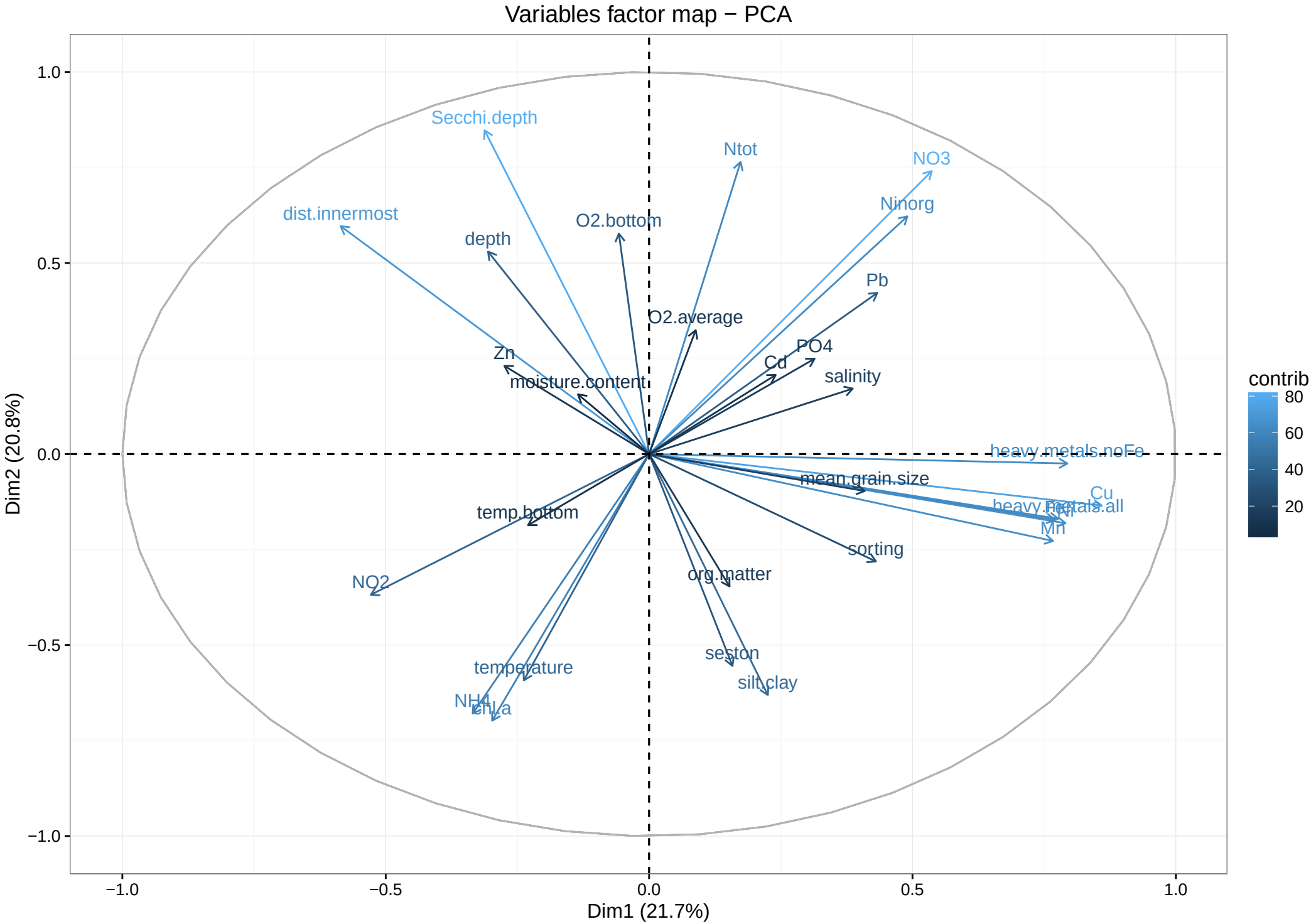

Variables factor map − PCA
org.matter
sorting
mean.grain.size
heavy.metals.noFe
Ni
Mn
Cu
heavy.metals.all
Fe
cos2
0.80
0.75
0.70
0.65
0.60
1.0
0.5
0.0
−0.5
−1.0
Dim3 (11.2%)
Dim1 (21.7%)

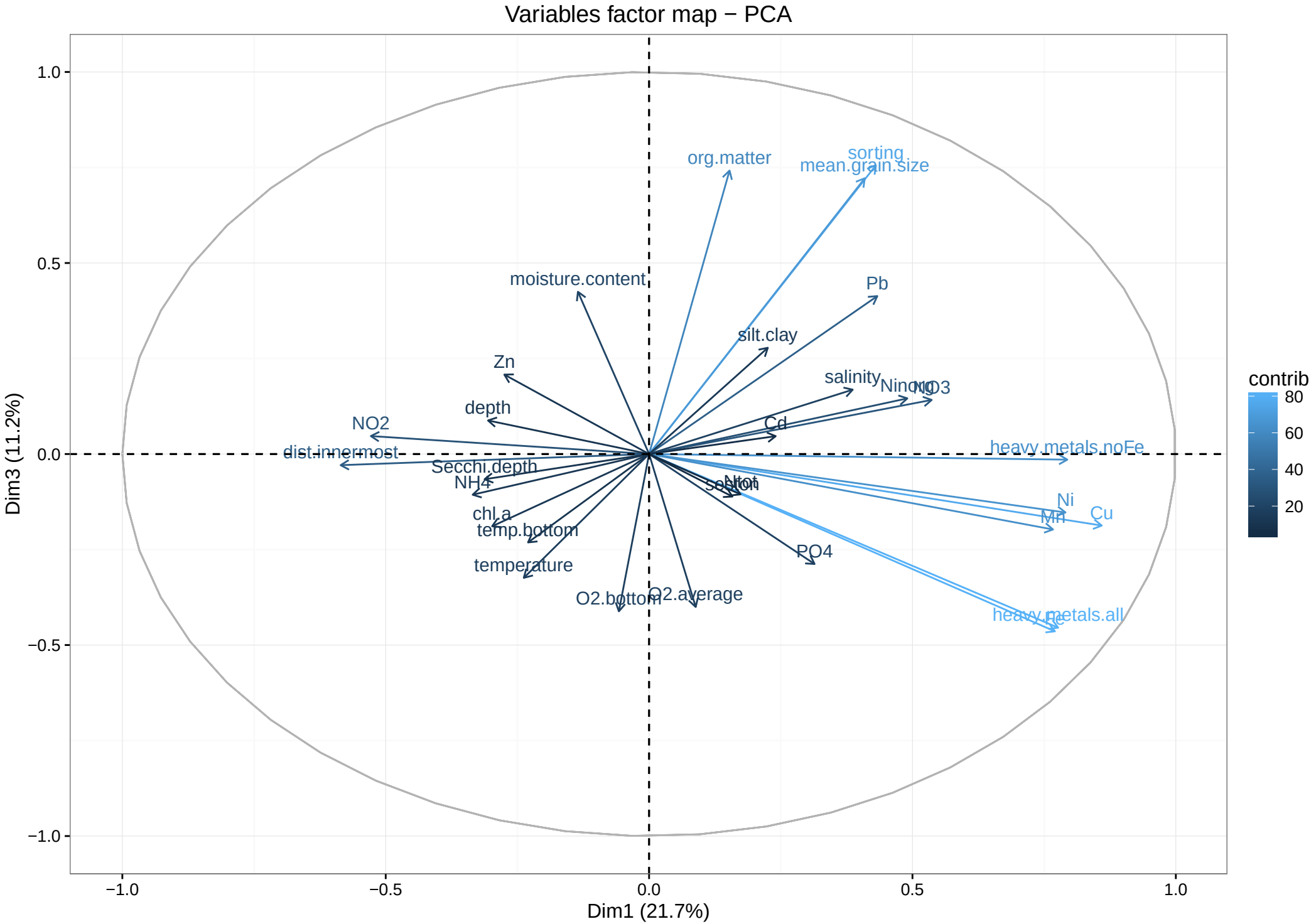

Contribution of variables to Dim−1
Contributions (%)
0
3
6
9
Cu
heavy.metals.noFe
Ni
heavy.metals.all
Fe
Mn
dist.innermost
NO3
NO2
Ninorg
Pb
sorting
mean.grain.size
salinity
NH4
PO4
Secchi.depth
depth
chl.a
Zn
Cd
temperature
temp.bottom
silt.clay
Ntot
seston
org.matter
moisture.content
O2.average
O2.bottom

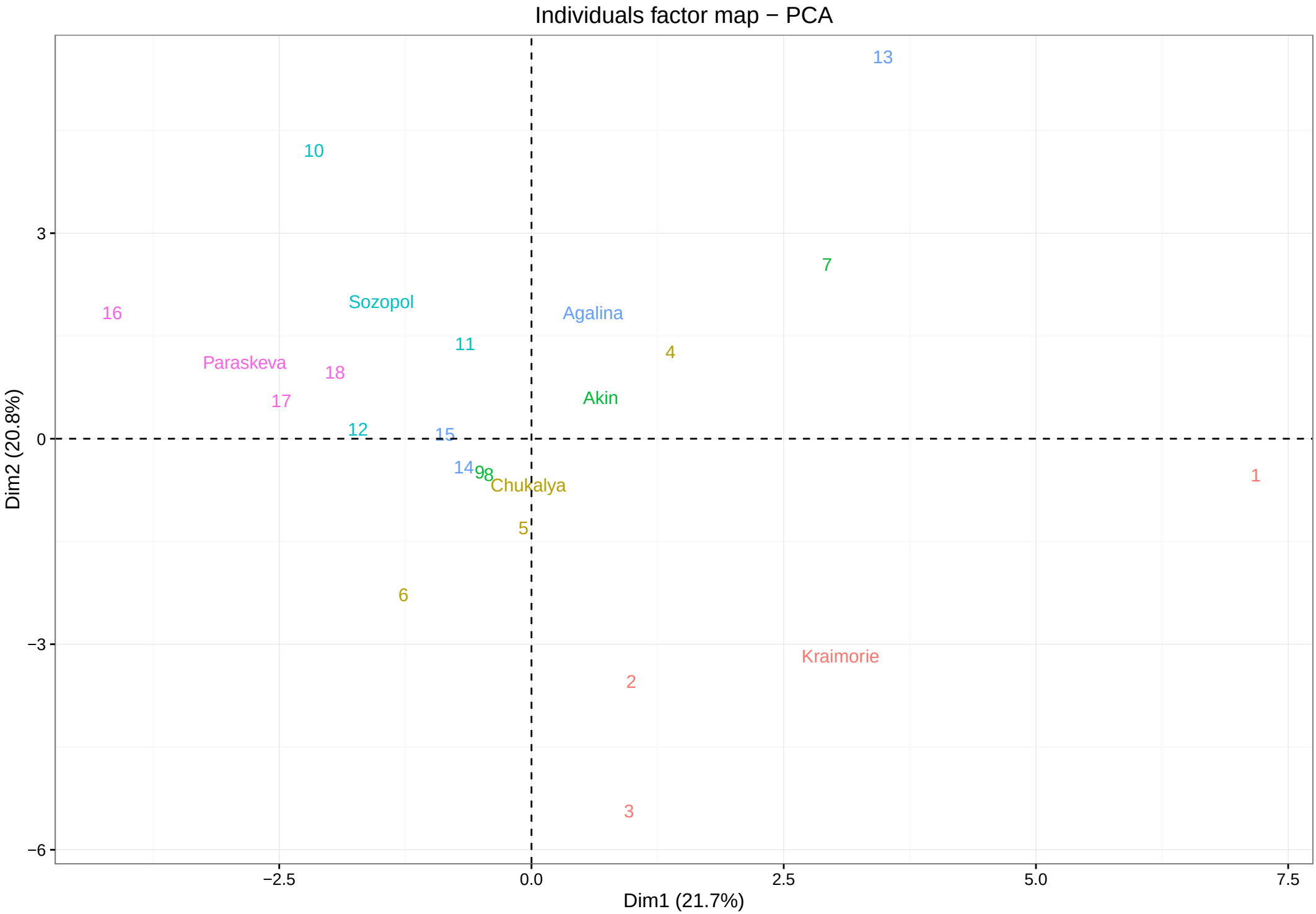

Contribution of variables to Dim−2
Contributions (%)
12
9
6
3
0
Secchi.depth
Ntot
NO3
chl.a
NH4
silt.clay
Ninorg
dist.innermost
temperature
O2.bottom
seston
depth
Pb
NO2
org.matter
O2.average
sorting
PO4
Zn
Mn
Cd
temp.bottom
Ni
Fe
salinity
heavy.metals.all
moisture.content
Cu
mean.grain.size

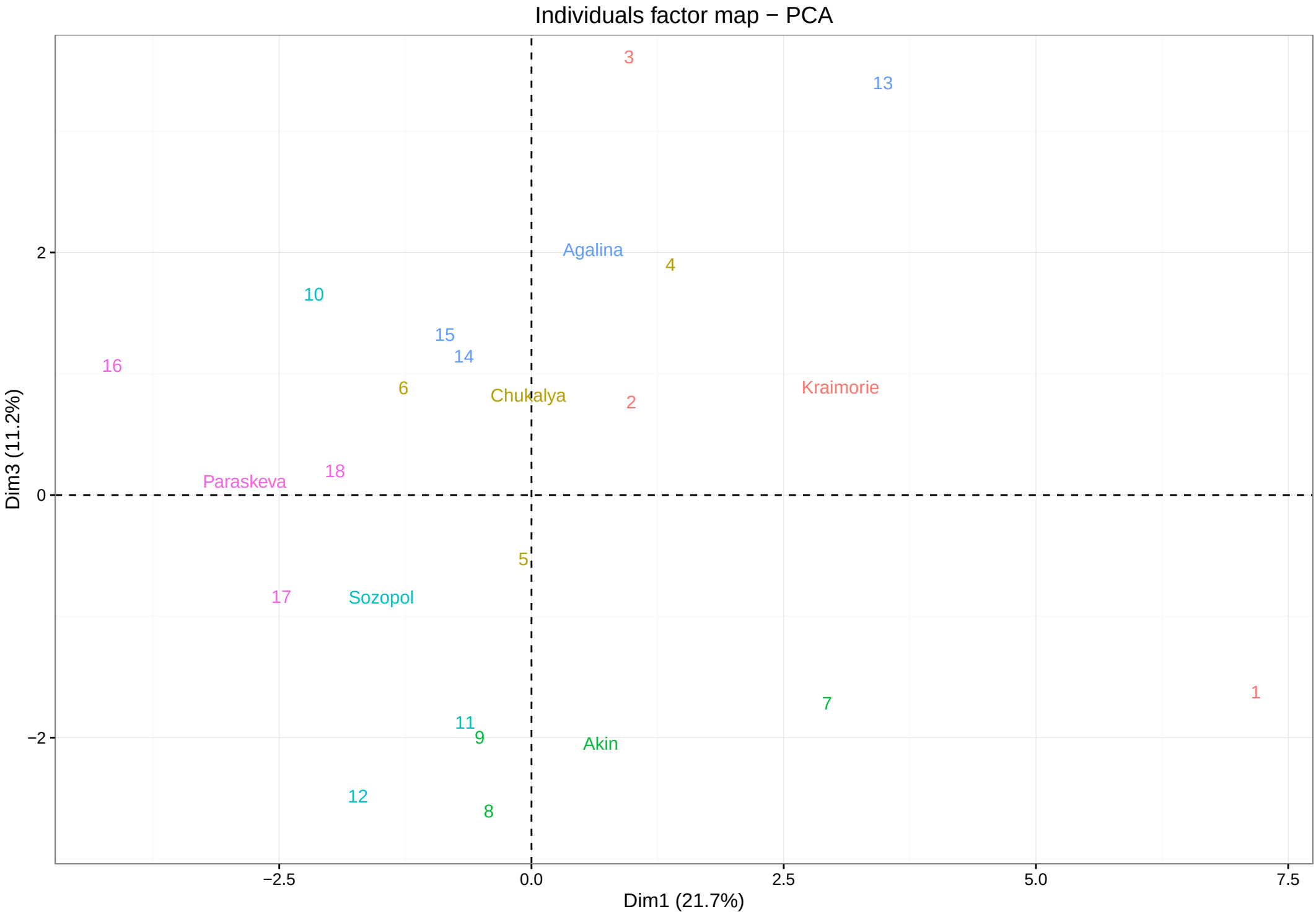

Contribution of variables to Dim−3
Contributions (%)
15
10
5
0
sorting
org.matter
mean.grain.size
Fe
heavy.metals.all
moisture.content
Pb
O2.bottom
O2.average
temperature
PO4
silt.clay
temp.bottom
Zn
Mn
chl.a
Cu
salinity
Ni
Ninorg
NO3
seston
NH4
Ntot
depth
Secchi.depth
NO2
Cd
dist.innermost
heavy.metals.nc

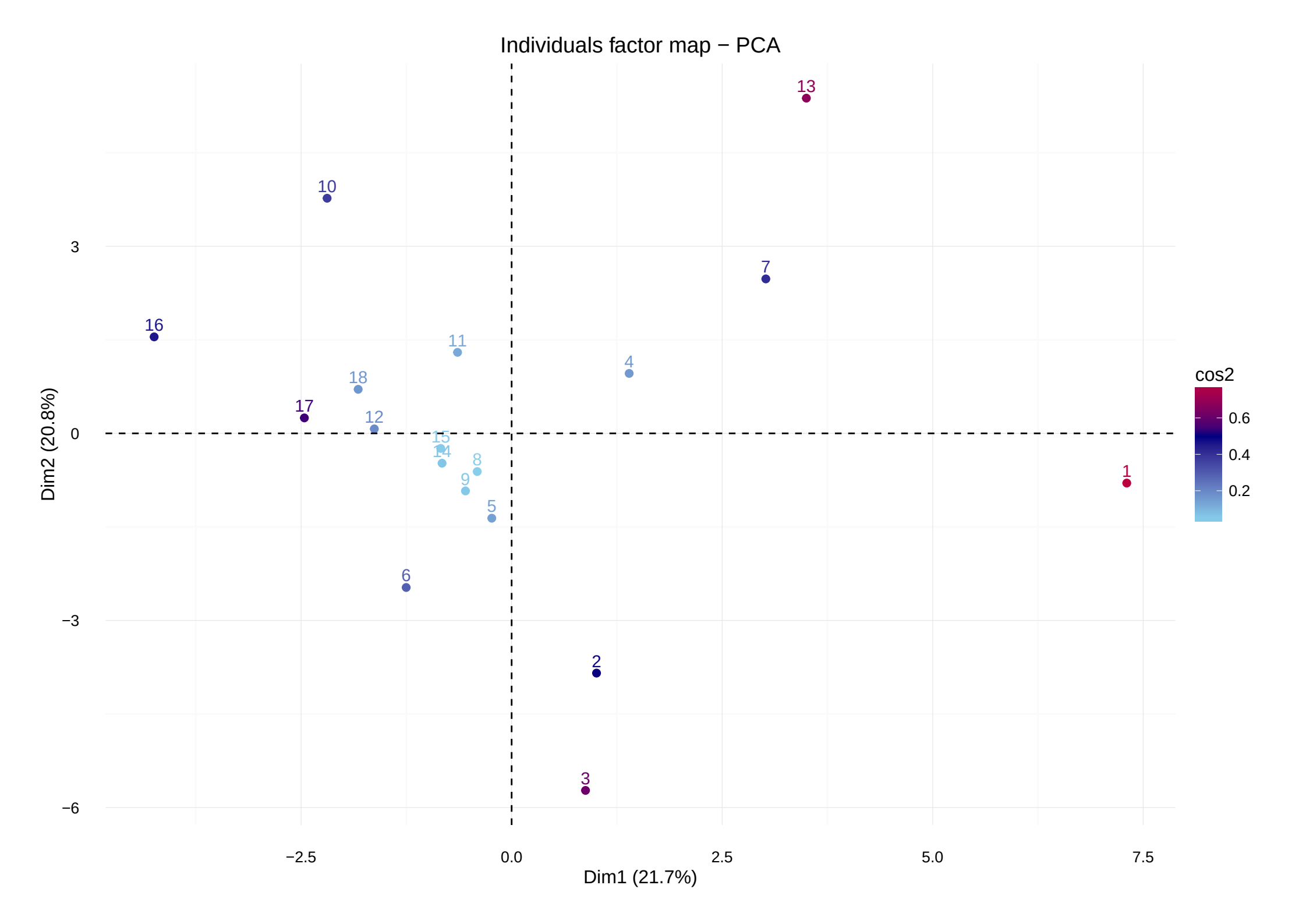

Contribution of variables to Dim−1−2−3
Contributions (%)
75
50
25
0
NO3
Fe
heavy.metals.all
sorting
Secchi.depth
Cu
dist.innermost
mean.grain.size
org.matter
Ni
Mn
Ninorg
heavy.metals.noFe
Ntot
chl.a
NH4
Pb
silt.clay
temperature
O2.bottom
NO2
depth
seston
O2.average
PO4
moisture.content
salinity
Zn
temp.bottom
Cd

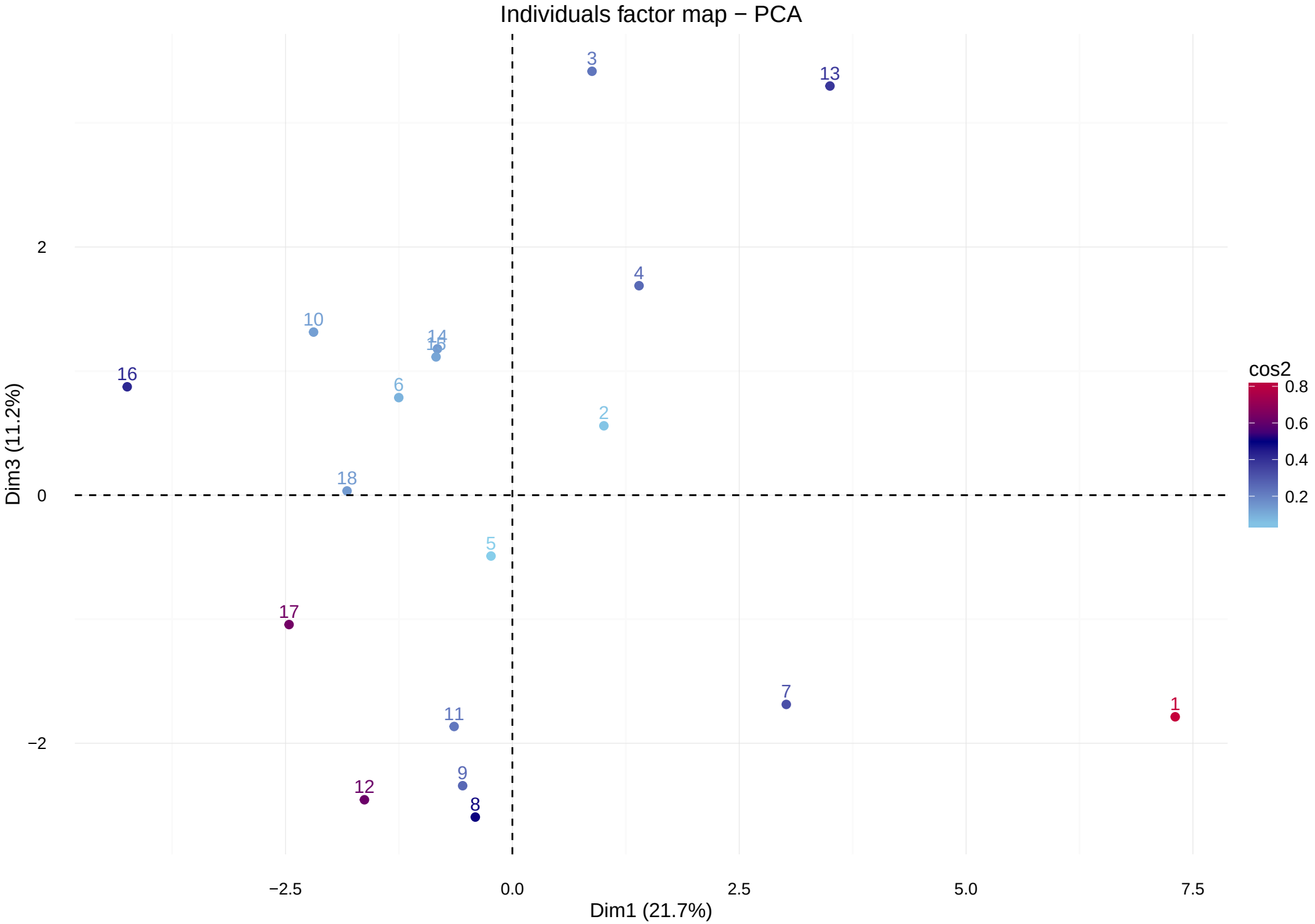

Variables factor map − PCA
Secchi.depth
Ntot
NO3
dist.innermost
O2.bottom
Ninorg
depth
Pb
O2.average
PO4
Zn
Cd
moisture.content
salinity
heavy.metals.noFe
mean.grain.size
Cu
heavy.metals.all
Mn
temp.bottom
sorting
NO2
org.matter
seston
temperature
silt.clay
NH4
chl.a
contrib
80
60
40
20
Dim1 (21.7%)
Dim2 (20.8%)
1.0
0.5
0.0
−0.5
−1.0

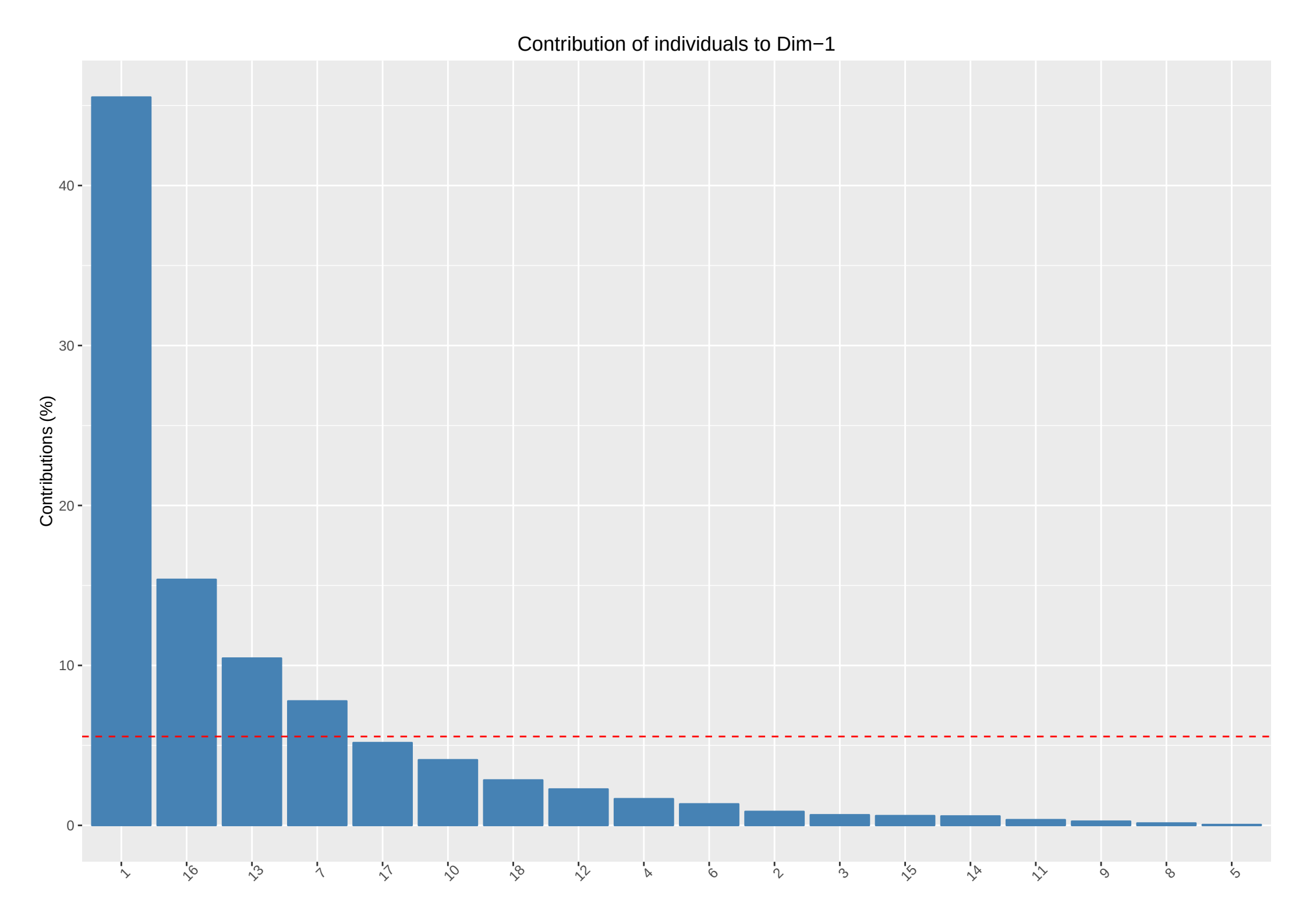

Variables factor map − PCA
org.matter
sorting
mean.grain.size
moisture.content
Pb
silt.clay
Zn
salinity
depth
NO2
Cd
heavy.metals.noFe
dist.innermost
Secchi.depth
NH4
Ni
Cu
Mn
chl.a
temp.bottom
PO4
temperature
O2.bottom
O2.average
heavy.metals.all
contrib
80
60
40
20
1.0
0.5
0.0
−0.5
−1.0
Dim3 (11.2%)
Dim1 (21.7%)

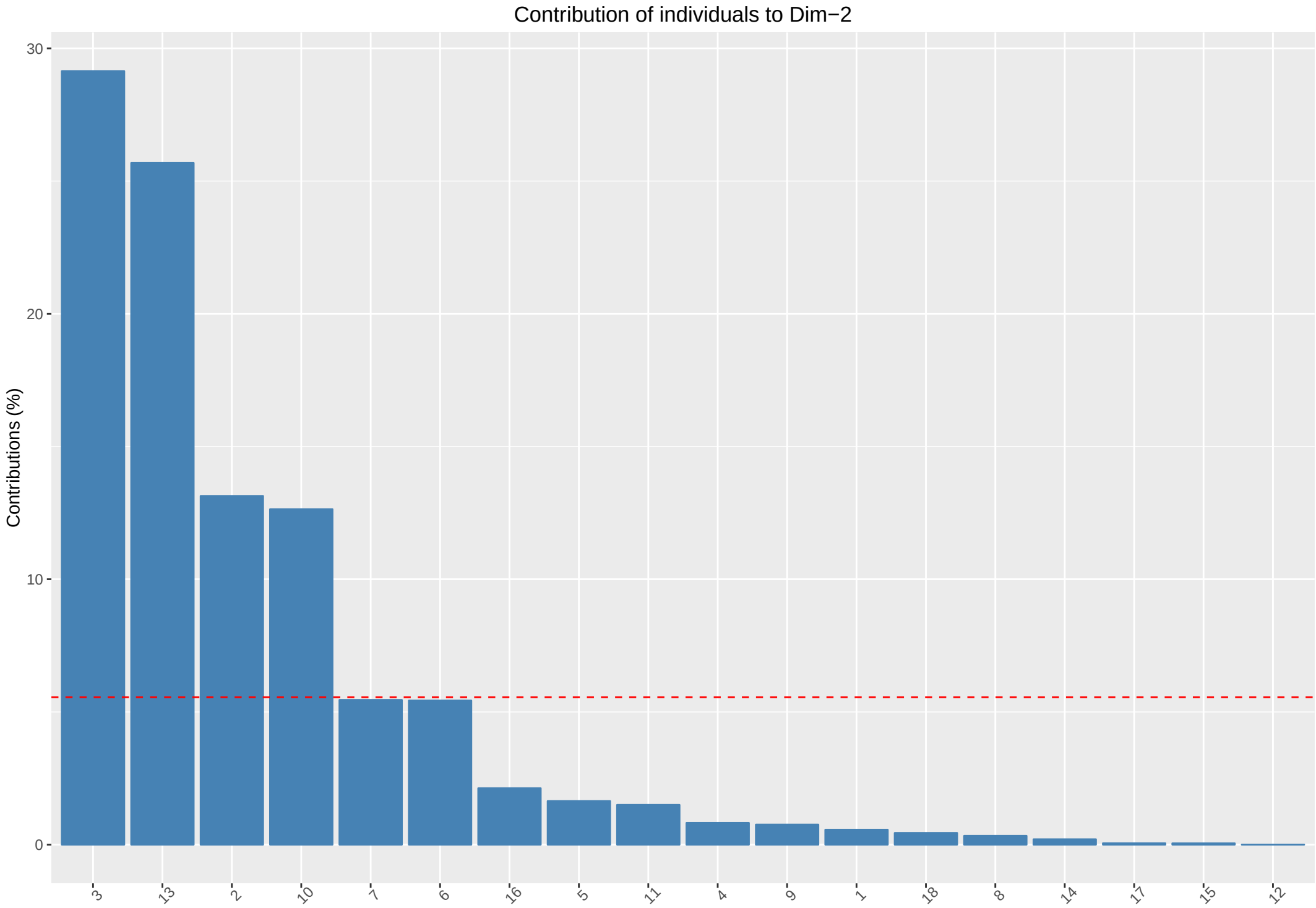

Individuals factor map − PCA
13
10
7
16
Sozopol
Agalina
11
4
Paraskeva
18
17
Akin
12
15
14
9
8
Chukalya
1
5
6
Kraimorie
2
3
3
0
−3
−6
−2.5
0.0
2.5
5.0
7.5
Dim2 (20.8%)
Dim1 (21.7%)

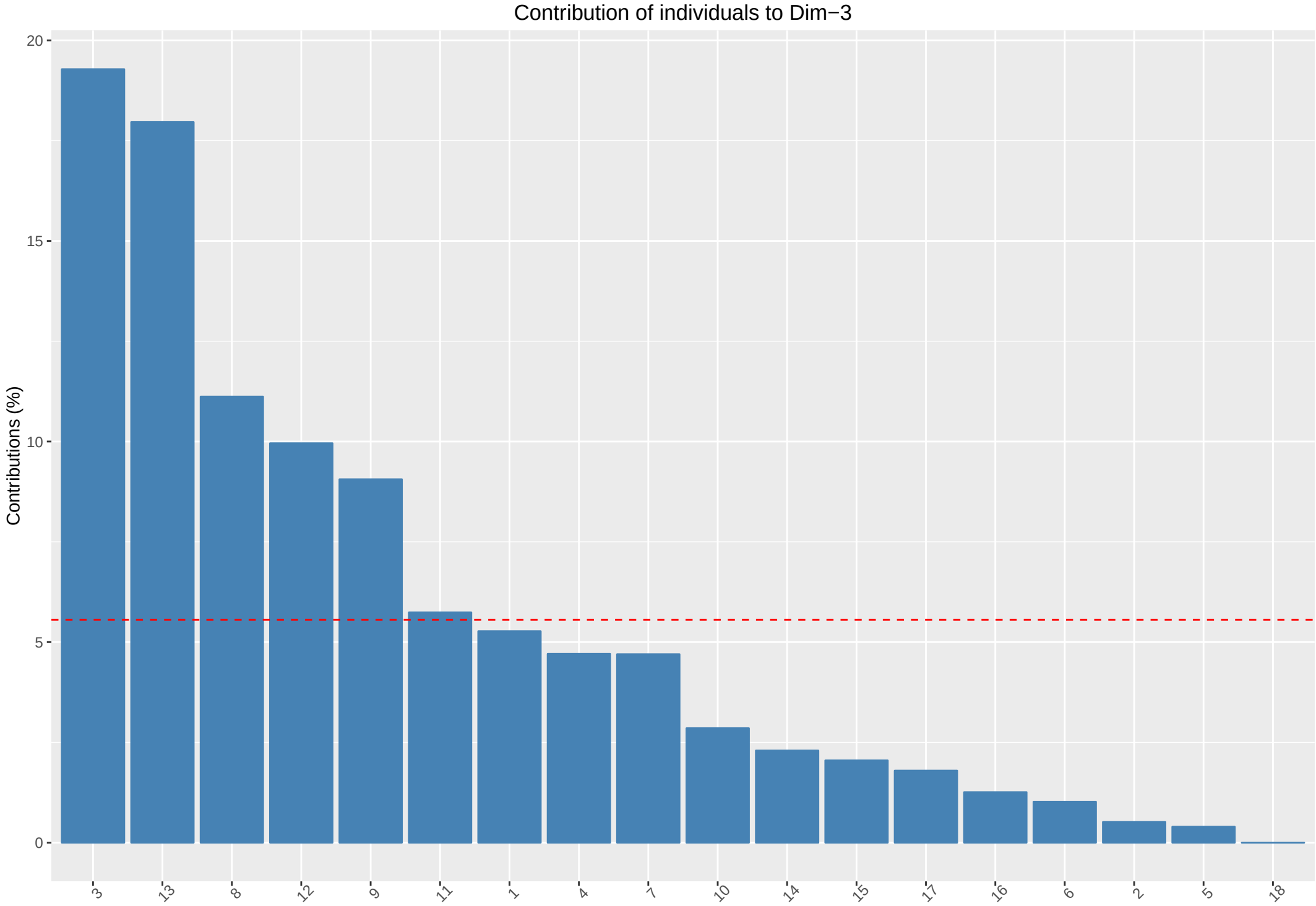

Individuals factor map − PCA
3
13
Agalina
4
10
15
14
16
6
Chukalya
2
Kraimorie
Paraskeva
18
5
17
Sozopol
7
1
11
9
Akin
12
8
2
0
−2
−2.5
0.0
2.5
5.0
7.5
Dim3 (11.2%)
Dim1 (21.7%)

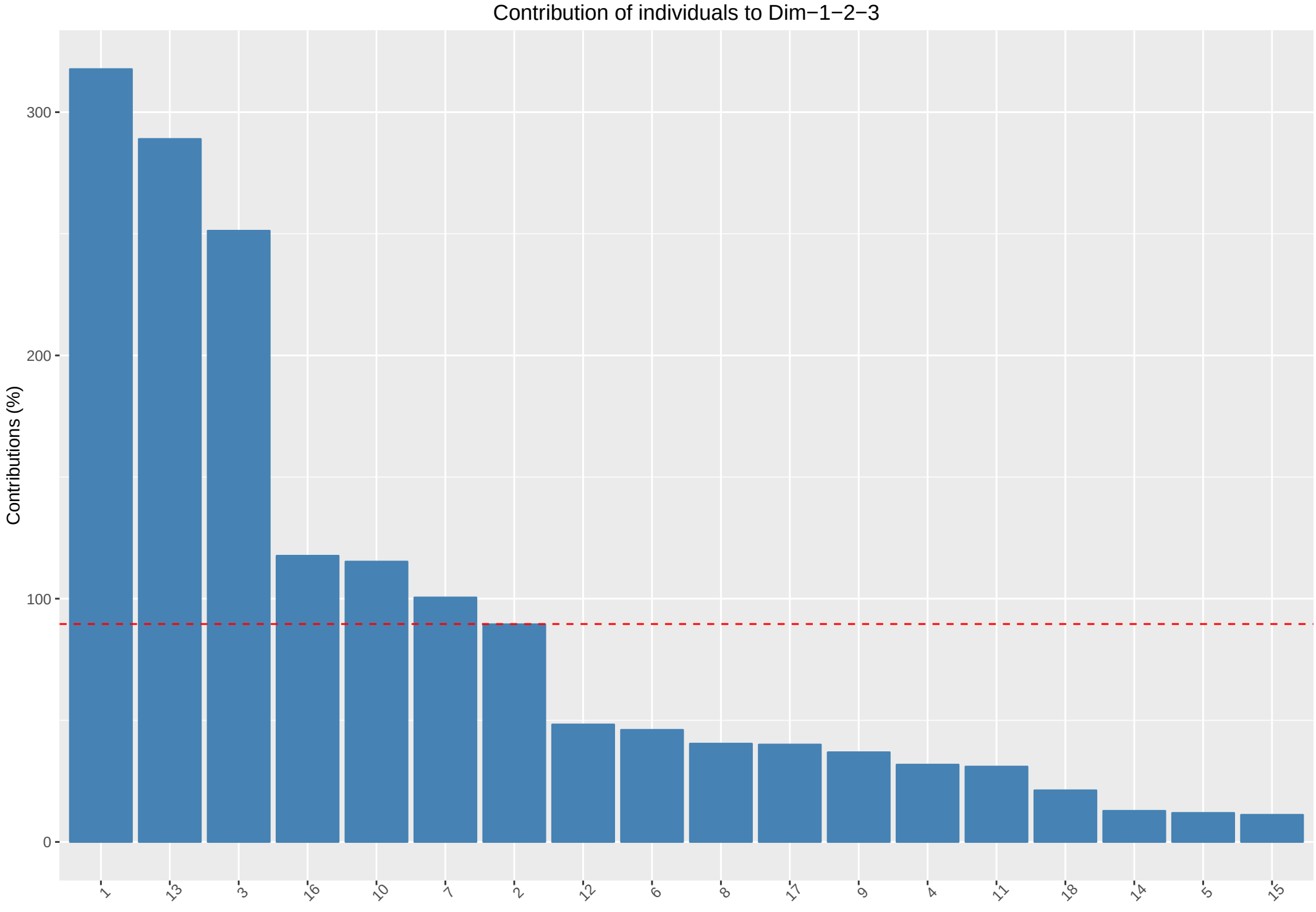

Individuals factor map − PCA
13
10
7
16
11
4
18
17
12
15
14
8
9
1
5
6
2
3
cos2
0.6
0.4
0.2
3
0
−3
−6
Dim2 (20.8%)
−2.5
0.0
2.5
5.0
7.5
Dim1 (21.7%)


Individuals factor map − PCA
3
13
4
10
14
15
16
6
2
18
5
17
7
1
11
9
12
8
2
0
−2
−2.5
0.0
2.5
5.0
7.5
Dim3 (11.2%)
Dim1 (21.7%)
cos2
0.8
0.6
0.4
0.2


Contribution of individuals to Dim−1
Contributions (%)
40
30
20
10
0
1
16
13
7
17
10
18
12
4
6
2
3
15
14
11
9
8
5


Contribution of individuals to Dim−2
Contributions (%)
30
20
10
0
3
13
2
10
7
6
16
5
11
4
9
1
18
8
14
17
15
12


Contribution of individuals to Dim−3
Contributions (%)
20
15
10
5
0
3
13
8
12
9
11
1
4
7
10
14
15
17
16
6
2
5
18


Contribution of individuals to Dim−1−2−3
Contributions (%)
300
200
100
0
1
13
3
16
10
7
2
12
6
8
17
9
4
11
18
14
5
15