

Supplementary Table S1. Lists of genotype in each Cluster and Sub-cluster.

| Cluster I      |                | Cluster II      |                 |                 | Cluster III      |                  |
|----------------|----------------|-----------------|-----------------|-----------------|------------------|------------------|
| Sub-Cluster Ia | Sub-Cluster Ib | Sub-Cluster IIa | Sub-Cluster IIb | Sub-Cluster IIc | Sub-Cluster IIIa | Sub-Cluster IIIb |
| 211284         | 207938         | 201066          | 208702          | 207534          | 208638           | 207935           |
| 211361         | 208703         | 207934          | 211267          | 208367          | 208699           | 208995           |
| 214663         | 211304         | 211266          | 211269          | 208705          | 211311           | 211302           |
| 214664         | 211314         | 211286          | 211279          | 211315          | 219231           | 237080           |
| 214665         | 211340         | 211305          | 211280          | 211320          | 223329           | NC-13            |
| 228077         | 213197         | 211323          | 211347          | 211325          | NC-14            | NC-28            |
| 230526         | 214675         | 211346          | 211356          | 211331          | NC-15            | RAZ-120          |
| 237993         | 228812         | 211348          | 211362          | 211333          | NC-18            | RAZ-9            |
| 241734         | 241756         | 211349          | 211546          | 212860          | NC-25            | KK25/MAIAWA/19   |
| 241736         | 241757         | 215048          | 211552          | 214676          | NC-29            | Ayenew           |
| 241748         | NC-30          | 215049          | 213046          | 215391          | NC-34            | Gofta            |
| NC-05          | NC-49          | 215051          | 214678          | 215720          | NC-52            | Kufanzik         |
| NC-07          | RAZ-36         | 228082          | 215719          | 228086          | RAZ-40           | Ser 125          |
| NC-12          | RAZ-44         | 228085          | 230525          | 228813          | KK25/NAGAGA/184  | Wedo             |
| NC-17          | Awash Melka    | 228522          | NC-10           | 228911          | MAZ 153          | SCR-11           |
| NC-51          | Beshbesh       | 228913          | NC-54           | 230044          | MAZ 200          | SCR-15           |
| NC-53          | Nasir          | 241739          | NC-61           | 230661          | MAZ 203          | SCR-26           |
| Red wolayta    | Roba           | 241752          | RAZ-11          | 232196          | Deme             |                  |
|                |                | 244805          | RAZ-11-1        | 237079          | DRK              |                  |
|                |                | NC-16           | RAZ-2           | 241134          | Tinkie           |                  |
|                |                | NC-20           | SMARC 4         | NC-44           |                  |                  |
|                |                | NC-39           | KAT-B1          | NC-57           |                  |                  |
|                |                | NC-50           |                 | Awash-1         |                  |                  |
|                |                | RAZ-42          |                 |                 |                  |                  |
|                |                | Mexican 142     |                 |                 |                  |                  |
|                |                | RAZ-28-8        |                 |                 |                  |                  |