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| **Monitoring Parameter** | **Definition and unit** | **Method** | **Frequency** | **Means of Verification** |
| P1 | Area (ha) community land undergoing communal garden planting via direct seeding and seedling plantation per year | GPS delineation | To be updated annually | Legal agreement via project agreement and GPS coordinates |
| P2 | Number of trees planted and numbers of seeds sprouting after 6 months in the communal garden plots. | Seedling counts during planting. Sprouting counts 6 months after sowing | To be checked annually | Registration of trees and sprouts after 6 months in Q field app by site supervisor. |
| P3 | Yearly implementation of the fire management activities where necessary to protect seedlings in communal garden. (% protected) | GPS delineation | To be checked annually and more regularly during dry season | Appointed responsible field supervisor per project area. Reporting of fire management (e.g. firebreaks) activities; |
| P4 | Yearly implementation of the protection activities against livestock where necessary and evaluation of effectiveness. (% protected) | GPS delineation | To be checked monthly | Appointed responsible field supervisor per project area. Reporting and evaluation of protection activities; |
| P5 | Survival rate (#/ha) and diameter growth (cm/yr) in communal garden plots following the milestone-based scheme. | Survival rate count  DBH measurement with tape measure based on a representative sample of 10% of the trees in year 5, 7, 9, 12 and 15. | Following the milestonebased scheme, measurement in year 5,7, 9, 12 and 15. | A dedicated monitoring team is specialized in this activity, to be reported per project plot |
| P6 | fodder crop system installed per year per village. (#) | Seedling counting during planting | To be updated annually | Appointed responsible field supervisor per project area. Reporting and evaluation of fodder crop activities |
| P7 | 5-yearly evaluation of food production from agroforestry products. | Social survey questionnaire | To be reported every 5 years | Five-yearly social questionnaire taken from subsample of smallholder participants |
| P8 | Nurseries operating and delivering 10 000 seedlings per year (#) | Seedling counting in nursery | To be checked annually | Number of seedlings leaving the nursery. . |
| P9 | Tree seedlings planted per hectare in home orchard planting areas per year (#/ha) | Seedling counting during planting | To be checked annually | Number of agroforestry trees planted and survival rate per hectare. |
| P10 | Organization of minimally 1 training per year on agroforestry practices (#) | Training | To be checked annually | Number of trainings/meetings organized with the smallholders per village supported by meeting photographs and attendance list |
| P11 | Survival rate (#/ha) and diameter growth (cm/yr) in agroforestry plots following the milestone-based scheme | Survival rate count  DBH measurement with tape measure based on a representative sample of 10% of the trees in year 5, 7, 9, 12 and 15. | Following the milestonebased scheme, measurement in year 5,7, 9, 12 and 15. | A dedicated monitoring team is specialized in this activity, to be reported per project plot |
| P12 | Implementation of plant protection strategies by smallholder farmers. | Field visit | To be checked annually | Appointed responsible field supervisor per project area. Reporting and evaluation of protection activities |
| P13 | 5-yearly evaluation of income diversification from apiculture, non- timber forest products and agroforestry. | Financial review | To be reported every 5 years | Five-yearly social questionnaire taken from subsample of smallholder participants |
| P14 | Organization of minimally 1 training on the valorisation of NTFPs (incl. apiculture). | Training | To be checked annually | Report and photographic evidence of trainings in NTFPs (incl. apiculture), attendance list |
| P15 | Organization of minimally 1 economic training on NTFPs (incl. apiculture). | Training | To be checked annually | Report and photographic evidence of trainings in NTFPs (incl. apiculture), attendance list |
| P16 | Organization of 1 assembly in 3 years for smallholders to facilitate the peer-to-peer learning. | Training | To be checked annually | Report and photographic evidence of trainings in NTFPs (incl. apiculture), attendance list |
| P17 | Annual socio-environmental investments made (or designated) in the project area and payments to the participating smallholders (CFA) | Financial review | To be checked annually | Reports and contracts of socioenvironmental investments, photographic evidence |
| P18 | Organization of minimally 1 participative workshop enduring awareness of ecosystem benefits per year. | Training | To be checked annually | Report of community meetings, photographic evidence |
| P19 | P19.1 Plan Vivo committees consist of 30% women.  P19.2 Plan Vivo committees consist of representatives of all ethnic groups including the Mbororo if relevant. | Head count | To be checked annually | Report of community meetings, photographic evidence and attendance list |
| P20 | At least 3 Plan Vivo meetings are organized and at least 1 community meeting are organized per year. | Meetings | To be checked annually | Report of community or Plan Vivo meetings, photographic evidence and attendance list |
| C1 | Number of seedlings planted per hectare in home orchards (#/ha) | Seedling counting during planting | To be checked annually | Registration of tree seedlings leaving the nurseries for home orchard planting and coordination of planting activities by the project team |
| C2 | Number of seedlings planted per hectare in communal gardens (#/ha) | Seedling counting during planting | To be checked annually | Registration of tree seedlings leaving the nurseries for communal garden planting and coordination of planting activities by the project team |
| C3 | Number of seeds planted per hectare via direct seeding in communal gardens (#/ha) | Seed counting during planting | To be checked annually | Registration of treated tree seeds, photographs of seed treatment and sowing activities. |
| C4 | Long term survival rate (%) of planting activities in the home orchard plots together with AGB measurements (DBH (cm) to kg) | Survival rate count  DBH measurement with tape measure based on a representative sample of 10% of the trees in year 5, 7, 9, 12 and 15. | Survival rate count in the first 3 years  DBH measurement in year 5, 7, 9, 12 and 15. | A dedicated monitoring team is specialized in this activity, to be reported per project plot |
| C5 | Long term survival rate (%) of planting activities in the communal garden plots together with AGB measurements (DBH (cm) to kg) | Survival rate count  DBH measurement with tape measure based on a representative sample of 10% of the trees in year 5, 7, 10. | Survival rate count in the first 3 years  DBH measurement in year 5, 7, 10. | A dedicated monitoring team is specialized in this activity, to be reported per project plot |
| C6 | Number of observations of uncontrolled fires and damage through livestock (#) | Reporting disturbance events during village meeting | To be checked annually | Observations of fire or livestock damage are reported in community meetings. |
| L1 | % female and presence of all ethnic groups including Mbororo if relevant during the meetings of Plan Vivo committees and General Annual Meeting in the community (% and number) | Head count | To be checked annually | Reporting and photographic evidence in Annual Report |
| L2 | Organised trainings on agroforestry, ecosystem awareness,apiculture and NTFPs at least once a year (#/year) | Training | To be checked annually | Reporting and photographic evidence of trainings in Annual Report |
| L3 | Socioenvironmental investments in the project areas (e.g. according to Plan Vivo maps: waterpumps, school buildings, …) (CFA) | Financial review | To be checked annually | Reports and contracts of socioenvironmental investments, photographic evidence. Financial reporting included in Annual Report |
| L4 | Volume of fruit produced (e.g. avocado, mango, … ) by smallholder as well as the volume of other crops (e.g. manioc, maize, …) produced by the same smallholder. (tons) | Social survey questionnaire | To be reported every 5 years | Five-yearly social questionnaire taken from subsample of smallholder participants |
| L5 | Income of smallholder farmers due to direct income and indirect income of planting agroforestry trees. (CFA) | Social survey questionnaire | To be reported every 5 years | Five-yearly social questionnaire taken from subsample of smallholder participants |
| L6 | Volume of NTFPs produced by communal gardens, harvested by the community. | Social survey questionnaire | To be reported every 5 years | Five-yearly social questionnaire taken from subsample of community |
| L7 | Volume of fodder crops allocated to Mbororo | Social survey questionnaire | To be reported every 5 years | Five-yearly social questionnaire taken from subsample of Mbororo |
| E1 | Average Above Ground Biomass in agroforestry plots (home orchards & communal gardens). (t C/ha) | DBH measurement with tape measure based on a representative sample of 10% of the trees in year 5, 7, 9, 12 and 15. | To be checked in year 5, 7, 9, 12 and 15 | Reporting or photographs |
| E2 | Sprouts Species Richness in agroforestry areas (index) | Shannon diversity index | To be resampled every 5 years in the same plots | Based on the vegetation survey, the total number of species in the community (richness S), as well as the proportion of species i relative to the total number of species (pi) can be calculated. |
| E3 | Bushes Species Richness in agroforestry areas (index) | Shannon diversity index | To be resampled every 5 years in the same plots | Based on the vegetation survey, the total number of species in the community (richness S), as well as the proportion of species i relative to the total number of species (pi) can be calculated. |
| E4 | Tree Species Richness in agroforestry areas | Shannon diversity index | To be resampled every 5 years in the same plots | Based on the vegetation survey, the total number of species in the community (richness S), as well as the proportion of species i relative to the total number of species (pi) can be calculated. |
| E5 | Number of observations of woodcutting and agriculture expansions in and around the communal gardens (#) | Reporting disturbance events during community meeting | To be checked annually | Registration of observations made by project staff and/or mentioned during the yearly community meetings |
| E6 | Number of observations of fire incidents (#) | Reporting disturbance events during community meeting | To be checked annually | Observations of fire are reported in community meetings. |
| E7 | Number of observations of livestock destroying plantation (#). | Reporting disturbance events during community meeting | To be checked annually | Observations of animal damage are reported in community meetings. |