

TYPE OF RISK	DESCRIPTION / CONSEQUENCES	ASSESSMENT	PREVENTION – MANAGEMENT STRATEGY
Biological Risks			
<ul style="list-style-type: none"> • Pest infestation • Grass and lianas • Diseases 	<ul style="list-style-type: none"> • Reduced growth of trees up to death 	<ul style="list-style-type: none"> • Partially controllable (pests) • Completely controllable (grass/lianas) 	<ul style="list-style-type: none"> • Species richness/multi-species plantations • Liana/grass cleaning • Natural control system by allowing understory growth promotes high biodiversity (e.g. birds eat insects) • Highest quality seeds • Monitoring by forest partners
<ul style="list-style-type: none"> • Genetic 	<ul style="list-style-type: none"> • Reduce inferior seedlings Profitability • Low/slow growth • Dieback seedlings 	<ul style="list-style-type: none"> • Well controllable 	<ul style="list-style-type: none"> • Own nurseries • Only use (native) seedlings of known origin • (20% replanting included in investment planning)
<ul style="list-style-type: none"> • Soil conditions 	<ul style="list-style-type: none"> • Slow/no growth • Less heartwood • Economic damage 	<ul style="list-style-type: none"> • Controllable for the most part 	<ul style="list-style-type: none"> • Soil and site analysis (before purchase) • Species allocation procedure • Plantation layout • GIS system/drones controls
Climatic Risks			
<ul style="list-style-type: none"> • Storms 	<ul style="list-style-type: none"> • Wind breakage/destruction of large Forest areas • Possible increase due to global global warming, migration of weather zones 	<ul style="list-style-type: none"> • Only conditionally manageable 	<ul style="list-style-type: none"> • Site selection/suitable soil selection • Use of native tree species/management
<ul style="list-style-type: none"> • Landslides • Earthquake • Erosion 	<ul style="list-style-type: none"> • Large scale destruction • Local to widespread negative effects on the supply of wood 	<ul style="list-style-type: none"> • Partially controllable (landslides) • Not controllable for earthquakes • Erosion largely controllable 	<ul style="list-style-type: none"> • Site Selection/Suitable Land Acquisition Silvicultural techniques • Ground cover/undergrowth remains for erosion control
<ul style="list-style-type: none"> • Fire 	<ul style="list-style-type: none"> • Destruction of young reforestation/growth damage to adult trees • Economic damage 	<ul style="list-style-type: none"> • Partially controllable by management • Main risk in three- to four-month dry dry period 	<ul style="list-style-type: none"> • Firebreaks • Fire prevention plans/safety training • Drone surveillance
<ul style="list-style-type: none"> • Drought 	<ul style="list-style-type: none"> • Dry season • Weather phenomena • Damage to young seedlings • Increase with changes in climatic conditions 	<ul style="list-style-type: none"> • Controllable for the most part 	<ul style="list-style-type: none"> • Species selection of native tree species, adapted to the climate • Quality management
<ul style="list-style-type: none"> • Flooding 	<ul style="list-style-type: none"> • Permanent flooding lead to damage • Torrential rain 	<ul style="list-style-type: none"> • Partially controllable 	<ul style="list-style-type: none"> • Ground selection • Land Selection • Use floodplains as nature reserves

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Economic and financial policy risks			
<ul style="list-style-type: none"> • Currency fluctuations 	<ul style="list-style-type: none"> • Negative economic impact 	<ul style="list-style-type: none"> • Partially controllable • No forecast possible 	<ul style="list-style-type: none"> • Cash reserves in dollars • Capital reserves through land purchase (afforestation at a later date)
<ul style="list-style-type: none"> • Wood price fluctuations • Demand trends 	<ul style="list-style-type: none"> • Increase due to shortage/ increased demand • Decrease/ collapse timber market • Decrease in cash flow due to long-term decrease in wood price 	<ul style="list-style-type: none"> • Partially controllable 	<ul style="list-style-type: none"> • Mixed forests with many wood species • Quality seal through FSC certification/niche market • Positive storage costs due to harvesting time extension • Conservative cash flow model
<ul style="list-style-type: none"> • Market and competitive risks 	<ul style="list-style-type: none"> • Declining credibility due to Negative examples 	<ul style="list-style-type: none"> • Partially controllable • Misbehavior of others not controllable 	<ul style="list-style-type: none"> • Transparency through disclosure of all documents/numbers/activities • Plausibility check by auditing association
<ul style="list-style-type: none"> • Inflation 	<ul style="list-style-type: none"> • Devaluation risk for assets • Inflation rate in the past lower than price increase precious wood 	<ul style="list-style-type: none"> • Partially controllable 	<ul style="list-style-type: none"> • Factoring inflation rate into economic planning • (Estimation of inflation rate over decades not possible)
<ul style="list-style-type: none"> • Interest rate fluctuations 	<ul style="list-style-type: none"> • Advantage in the event of changes in the positive interest rate range • Disadvantage with negative interest rates 	<ul style="list-style-type: none"> • Partially controllable 	<ul style="list-style-type: none"> • 0% interest planning

Legal and political risks			
<ul style="list-style-type: none"> • Legislative changes 	<ul style="list-style-type: none"> • BaFin-free placement on the investment market • Tax incentives for reforestation companies in Panama • Legislative changes would greatly change economic planning • (Opportunity: forests as a compensation measure for environmental challenges) 	<ul style="list-style-type: none"> • Not controllable • Mitigation through consistent and timely integration into business processes 	<ul style="list-style-type: none"> • Building political network could promote sustainable management • Political contacts (early information) • Immediate incorporation of legislative changes in business • Investment protection agreement between Germany and Panama
<ul style="list-style-type: none"> • Law 	<ul style="list-style-type: none"> • Deviating tax systems (double taxation agreements) • Determination of transfer prices • 100% legal transactions (transparent and fully published) 	<ul style="list-style-type: none"> • Partially controllable • Minimization through experience 	<ul style="list-style-type: none"> • Rigorous due diligence process • Review by auditors
<ul style="list-style-type: none"> • Politics 	<ul style="list-style-type: none"> • Possible expropriation (without replacement) by future governments would result in total loss (never happened so far) • Panama: low land ownership risk, investment status with rating agencies (assumes political stability) 	<ul style="list-style-type: none"> • Partially controllable 	<ul style="list-style-type: none"> • Association of government, environmental organizations and companies (Alianza por el Millon) • Longstanding political relations • Close contact with indigenous communities • Right of nature to exist and persist in Panama is anchored by law

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Legal and political risks			
<ul style="list-style-type: none"> Corruption 	<ul style="list-style-type: none"> Enrichment by individuals Corrupt competitor companies could gain advantages 	<ul style="list-style-type: none"> Partially controllable 	<ul style="list-style-type: none"> Korruption wird nicht geduldet Dienstleister und Partner
<ul style="list-style-type: none"> Land Grabbing 	<ul style="list-style-type: none"> Reputational risk can reduce sales of of cooperative shares Land purchases and reforestation only on degraded land degraded land previously used for unsustainable livestock or mono culture plantations 	<ul style="list-style-type: none"> Completely controllable 	<ul style="list-style-type: none"> Transparent and truthful communication Forestry utilization in compliance with ecological, economic and ethical principles is the subject of of the cooperative according to the statutes
Operational risks			
<ul style="list-style-type: none"> Strategic investment 	<ul style="list-style-type: none"> Use of funds: Strategic land purchases of contiguous areas can result in a lot of land initially being owned, but relatively little is afforested 	<ul style="list-style-type: none"> Controllable for the most part 	<ul style="list-style-type: none"> Optimal planning and calculation of resources for the purchase and also the reforestation
<ul style="list-style-type: none"> Structure of the cooperative 	<ul style="list-style-type: none"> Dependence of individual decision-makers (important succession and representation arrangements) Long-term nature of appointments to governing bodies means limited flexibility 	<ul style="list-style-type: none"> Controllable for the most part 	<ul style="list-style-type: none"> Forward planning and staffing of the organs Regular exchange and new appointments
<ul style="list-style-type: none"> Forest partners/ Infrastructure 	<ul style="list-style-type: none"> Dependence on the partner company and its planning (staff deployment, distances to the nurseries, accommodation, transport routes, etc.) 	<ul style="list-style-type: none"> Controllable for the most part 	<ul style="list-style-type: none"> Transparent partnership with regular exchange and transmission of all information Over 25 years of experience
<ul style="list-style-type: none"> Silvicultural Risks 	<ul style="list-style-type: none"> Generational forest principle as a construct adaptable? Tree species adapted to the rapidly changing climate? 	<ul style="list-style-type: none"> Completely controllable 	<ul style="list-style-type: none"> Regular review and expansion of tree species, collection of new knowledge and integration into the Generational Forest Principle Over 25 years of experience
<ul style="list-style-type: none"> Land purchase 	<ul style="list-style-type: none"> Mispurchase 	<ul style="list-style-type: none"> Controllable for the most part 	<ul style="list-style-type: none"> soil samples at different times of the year, topographical site assessment Over 25 years of experience