

RISK TYPE	DESCRIPTION / CONSEQUENCES	ASSESSMENT	PREVENTION - MANAGEMENT STRATEGY
Biological risks			
<ul style="list-style-type: none"> • Pest infestation • Grass and vines • Diseases 	<ul style="list-style-type: none"> • Decreased growth of the trees up to death 	<ul style="list-style-type: none"> • Partially controllable (pests) • Fully controllable (grass/vines) 	<ul style="list-style-type: none"> • Species richness/multi-species plantations • Vine / 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"> • Genetics 	<ul style="list-style-type: none"> • Inferior seedlings reduce 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 taken into account 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"> • For the most part controllable 	<ul style="list-style-type: none"> • Soil and site analysis (before purchase) • Species Assignment Procedure • Plantation layout • Controls through GIS system / drones
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 warming, migration of weather situation 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 impacts on wood supply. 	<ul style="list-style-type: none"> • Partially controllable (landslides) • Not controllable for earthquake • Erosion largely controllable 	<ul style="list-style-type: none"> • Site selection/Suitable land purchase • 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 during three- to four-month dry period 	<ul style="list-style-type: none"> • Firebreaks • Fire protection plans/safety training • Drone surveillance
<ul style="list-style-type: none"> • Drought 	<ul style="list-style-type: none"> • Drying time • Weather phenomena • Damage to young seedlings • Increase with change in climatic conditions 	<ul style="list-style-type: none"> • For the most part controllable 	<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 leads to damage • Torrential rain 	<ul style="list-style-type: none"> • Partially controllable 	<ul style="list-style-type: none"> • Soil selection • Country 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"> • Liquidity reserves in dollars • Capital reserves through land purchase (reforestation 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 at long-term wood price decrease 	<ul style="list-style-type: none"> • Partially controllable 	<ul style="list-style-type: none"> • Mixed forests with many species of wood • Seal of approval through FSC certification/niche market • Positive storage costs due to harvest 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 • Misconduct 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"> • Inclusion of inflation rate in economic planning • (Estimation of inflation rate over decades, however, 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 alter economic planning • (Opportunity: Forests as a compensatory measure for global 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"> • Establishment of political network could promote sustainable management • Political contacts (early information) • Immediate incorporation of legislative changes into business • Investment protection agreement between Germany and Panama
<ul style="list-style-type: none"> • Law 	<ul style="list-style-type: none"> • Divergent tax systems • (double taxation agreement) • Determination of transfer prices • 100% legal transactions (published transparently and in full) 	<ul style="list-style-type: none"> • Partially controllable • Minimization through experience 	<ul style="list-style-type: none"> • Rigorous due diligence process • Review by examiners
<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 Million) • Longstanding political relations • Close contact with local communities • Nature's right to exist and persist in Panama is enshrined in law

RISK TYPE	DESCRIPTION / CONSEQUENCES	ASSESSMENT	PREVENTION - MANAGEMENT STRATEGY
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 advantage 	<ul style="list-style-type: none"> Partially controllable 	<ul style="list-style-type: none"> Corruption is not tolerated Service provider and partner
<ul style="list-style-type: none"> Land Grabbing 	<ul style="list-style-type: none"> Reputational risk may reduce sales of cooperative shares Land purchases and afforestation only on degraded land previously used for unsustainable livestock production or mono-crop plantations 	<ul style="list-style-type: none"> Fully 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 the cooperative in accordance with the Articles of Association
Operational risks			
<ul style="list-style-type: none"> Strategic investment 	<ul style="list-style-type: none"> Use of funds: strategic land acquisition of contiguous land can result in a lot of land being initially is owned, but relatively little afforested 	<ul style="list-style-type: none"> For the most part controllable 	<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 substitution arrangements) Long-term nature of the designation of the bodies means limited flexibility 	<ul style="list-style-type: none"> For the most part controllable 	<ul style="list-style-type: none"> Forward planning and staffing of the bodies 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"> For the most part controllable 	<ul style="list-style-type: none"> Transparent partnership with regular exchange and transmission of all information Over 25 years experience
<ul style="list-style-type: none"> Silvicultural risks 	<ul style="list-style-type: none"> Generational forest principle adaptable as a construct? Tree species adapted to the rapidly changing climate? 	<ul style="list-style-type: none"> Fully 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 experience
<ul style="list-style-type: none"> Land purchase 	<ul style="list-style-type: none"> Mispurchase 	<ul style="list-style-type: none"> For the most part controllable 	<ul style="list-style-type: none"> Soil sampling at different times of the year, topographical location assessment. Over 25 years experience