Session 4: Detailed Project Planning – Budgets, Risk & Sustainability (14:45–16:30)

Objective

Strengthen planning by addressing the practical aspects of executing agroforestry projects: budgeting and resource management, risk assessment, and planning for long-term sustainability beyond the project's initial funding. Participants will identify common risks and mitigation strategies and consider how to maintain project benefits over time. For this the DST provided by AF4EU may be helpful (https://platform.af4eu.eu/afi-bus-dss).

Key Topics

Budgeting & Resource Management

Every project needs a budget and resource plan. Discuss typical cost components in agroforestry projects: seedlings or saplings, fencing, tools, labor (planting, maintenance), training workshops, monitoring equipment (e.g., soil test kits, drones for monitoring), admin/coordination costs, etc. Emphasize **financial planning**: allocating costs to tasks/phases identified in the WBS. Mention creating a simple budget table (cost item, quantity, unit cost, total) and ensuring it aligns with timeline (cash flow over project years).

- Also discuss **human and material resources**: e.g., scheduling farm labour when it's off-peak season, ensuring nursery stock availability, or aligning with tree planting seasons. **Resource management in agroforestry** can be tricky due to seasonal windows (planting season) and long-term maintenance needs.
- Share tips: build in a contingency (e.g., +10% of budget for unexpected costs), and consider in-kind contributions (e.g., a farmer contributing land or labour). For European advisors, note that some budgets need to consider co-funding or matching funds depending on funding source.

Risk Management

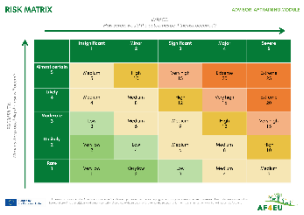
Agroforestry projects face various risks. Introduce the process of **Risk Management**:

1. **Identify Risks:** Brainstorm potential risks in categories: *Environmental* (droughts, floods, fires, pests/disease outbreaks in trees), *Financial* (funding shortfall, price fluctuations for products), *Social/Stakeholder* (farmer drop-out, land tenure issues, community opposition), *Operational* (delay in getting permits, supply chain issues for seedlings), *Policy* (changes in subsidy programs, new regulations). Use examples: a severe drought could kill young trees; a key partner might lose interest.

2. **Assess Risks:** For each risk, estimate its **Likelihood** (Low/Medium/High) and **Impact** (Low/Medium/High) on the specific local project economic, environment and social frame. For instance, drought in a Mediterranean region might be High likelihood and High impact; a policy change might be lower likelihood but high impact. This helps prioritize which risks need most attention.

3. **Mitigation Strategies:** For high or medium risks, plan what you can do to reduce the chance or impact. E.g., for drought risk – choose drought-resistant species, plan irrigation, or schedule planting in wetter season. For stakeholder risk – have regular meetings, Memorandums of Understanding (MOUs) with partners. For funding risk – diversify funding sources or have a modest start that can scale if more funds come.

4. **Risk Matrix Tool:** Show a simple **Risk Matrix** (a table with risks as rows and columns for likelihood, impact, mitigation) https://safetyculture.com/checklists/5x5-risk-matrix-template/. For example:



Funded by the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No GA 101086563. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

- **Risk:** *Drought* – Likelihood: High; Impact: High; Mitigation: *Select drought-resistant species and mulch for moisture.*
- **Risk:** *Policy change* (e.g., subsidy removed) – Likelihood: Medium; Impact: High; Mitigation: *Engage policymakers, align project with current policy goals (like CAP priorities).*
- **Risk:** *Market price drop for products* – Likelihood: High; Impact: Medium; Mitigation: *Diversify farm products or income (e.g., also produce timber or use agro-tourism).*

This systematic approach is often documented in a **Risk Register** The idea is to regularly review and update it during the project.

Ensuring Sustainability

Many projects end when initial funding ends, causing good practices to fade. Discuss how to plan for **project sustainability** and no-harm environment farm goals exit strategy from the start:

- Encourage **local ownership**: train farmers and local extension advisors to continue activities; form farmer groups or cooperatives for mutual support.
- **Policy integration**: if the project can inform policy or be integrated into government programs (like getting agroforestry recognized in local land-use plans or subsidy schemes), it gains longevity.
- **Financial sustainability**: explore options like carbon credits for agroforestry (e.g., through voluntary carbon markets such as Gold Standard), payments for ecosystem services, or integrating profitable enterprises (mushroom cultivation, fruit, or animal integration) so that the system finances itself after the project.
- **Scaling up**: design the project as a pilot that can be replicated. If it's successful, have documentation and business case ready to pitch to other funders or communities. Mention that many EU projects (LIFE, Horizon) expect a replication/scaling plan as part of the project outputs.

CASE STUDY: Project Risk Management – Common Land Silvopastoral Systems (Portugal)

See AF4EU Factsheet: Castro, M. (2025). The role of sheep and goat herding in forest fire risk management. AF4EU. https://doi.org/10.5281/zenodo.19235164

In Portugal's mountainous regions, traditional silvopastoral systems based on common land ("baldios") provide a practical example of project risk management in agroforestry. These systems integrate trees, pasture, and grazing livestock under collective governance, enabling the use of fragmented and marginal land resources.

From a risk management perspective, the system proactively addresses key threats including land abandonment, wildfire risk, low farm profitability, and climate stress. Grazing reduces fuel loads and fire risk, while diversified land use maintains productivity in otherwise unviable areas. The use of locally adapted sheep and goat breeds lowers input requirements and reduces exposure to climate variability. Community-based management and informal agreements (compascuum) further distribute risk across multiple stakeholders, improving system stability and continuity.

Project Risk Management Aspects:

• Risk identification: land abandonment, fire hazard, low productivity, climate variability

• Risk mitigation: continuous grazing, vegetation management, use of adapted livestock

• Risk sharing: collective land governance and community-based management

• Cost risk reduction: low-input system design and reduced dependency on external inputs

• Adaptive capacity: reliance on local knowledge and flexible, informal arrangements

Funded by the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No GA 101086563. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Key Takeaway:

Effective project risk management in agroforestry combines ecological practices with social organisation. By identifying key risks early and embedding mitigation measures into system design, these traditional systems deliver long-term sustainability and resilience.

Activity – Risk Assessment Matrix (30 min):

Teams will apply risk planning to their project from Session 3:

1. **List Risks:** Each team lists 3-5 major risks for their project. (5 min brainstorming) Encourage them to cover different categories (one environmental, one social, etc.).
2. **Rate and Prioritize:** For each risk, have them mark Likelihood and Impact as Low/Med/High. Then identify the top 2 risks (e.g., anything with High-High, or High impact). (5 min)
3. **Plan Mitigation:** For those top risks, the team writes down at least one mitigation strategy or contingency plan. (5-10 min)
4. **Share:** Each team shares one top risk and their plan with the room (each in ~1 minute). For example, *"Risk: Cattle might damage young trees (Likelihood: Medium, Impact: High). Mitigation: We plan to install tree protectors and test fast-growing nurse shrubs as a barrier."* Another team or the trainer might chime in with additional ideas (e.g., secure additional grazing control funding, involve herders in monitoring). This way, participants learn from each other's risk strategies.

Discussion: Acknowledge that not all risks can be eliminated, but having a plan makes the project more resilient. Also, point out how some strategies (like diversifying income sources or engaging policymakers) appeared multiple times – these are general best practices. Connect back to sustainability: many mitigation strategies (like diversifying income or securing policy support) also contribute to long-term viability.

Tip for Success: *"Diversify income and support – don't put all your eggs in one basket."* For instance, a project that taps multiple funding sources (public grants, private sponsors, farm revenue) is less likely to collapse if one source dries up. Similarly, an agroforestry system with diverse products (timber, fruit, livestock) can better withstand market or climate shocks.

Funded by the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No GA 101086563. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.