

2.2 Specific project ideas

2.2.1 Project idea for agro forestry and radical terraces:

Table 7: Detailed project idea for agro forestry and radical terraces

Name of Project idea	Integration of agro forestry and radical terraces in highland provinces of Rwanda
Introduction	<p>Agro-forestry is used in almost the whole world where agriculture is practiced. In Rwanda, it is practiced in the agriculture zones which are found in all the provinces. Crops can be grown together at the same time, in rotation, or in separate plots when materials from one are used to benefit another. Agro-forestry systems take advantage of trees for many functions: to hold the soil; to increase fertility through nitrogen fixation, or through bringing minerals from deep in the soil and depositing them by leaf-fall; and to provide shade, construction materials, foods and fuel.</p> <p>Radical terracing refers to a technique of landscaping a piece of sloped land into a series of successively receding flat surfaces or platforms, which resemble steps, for the purpose of more effective farming. This type of landscaping, therefore, is called terracing. Graduated terrace steps are commonly used to farm on hilly or mountainous terrain. Terraced fields decrease erosion and surface runoff retaining soil nutrients. Their environmental benefits and adaptation potential include: Soil erosion control, soil moisture improvement and maintenance, soil fertility improvement and maintenance, arable land (surface) increment, biodiversity conservation and natural hazards (land slide) prevention (MINAGRI, 2009).</p> <p>This project idea aims at promoting efficient land management by combining two selected adaptation technology options known to complement each another</p>
Objectives	Increase climate resilience through transfer and diffusion of selected adaptation technology options
Outputs	At the end of the project there should be:

	<p>Agro forestry species planted on a 30000 ha of new and existing radical terraces</p> <p>2. New 10000 ha Radical terraces are prepared</p>
Relationship to the country's sustainable development priorities	<p>This project comes to reinforce already existing government efforts of making Rwanda a food secure country while keeping the environment safe</p>
Project Deliverables	<p>1. Demonstration sites combining the two technologies shall be established in each district of the northern ,western provinces and selected district of the southern province</p> <p>2. Agro forestry tree species nursery shall be installed in each district of the northern , western provinces and selected district of the southern province</p>
Project Scope	<p>This project will be limited to the northern, western province and the southern provinces</p>
Project activities	<p>1. Organize and direct training sessions for agro extension agents</p> <p>2. Installation of demonstration sites</p> <p>3. Organize and direct farmers study tours</p> <p>4. Production of seedlings</p>
Timeline	<p>5 years</p>
Budget (USD)	<p>The budget for activity number one which consists of organizing and directing training sessions for agro extension agents in all the district of the country is estimated at 100 000USD</p> <p>The installation of at least 12 demonstration sites in districts of the Northern and the Western provinces would cost 850 000USD.</p> <p>Organizing and directing study tours for selected farmers is expected to cost 200 000USD while the production of seedlings is expected to cost 350 000USD.</p>
Measurement/evaluation	<p>One demonstration site is available per district for all the 12 districts of the northern and western provinces as well as selected district of the southern province</p>
Possible complications/challenges	<p>Policy limitations: There is neither specific policy nor strategy on land husbandry techniques as well as agro forestry development.</p>

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<p>ges</p>	<p>Limited funds are allocated to the development of these technologies.</p> <p>Limited expertise/human resources:</p> <p>There exist gaps of knowledge on agro forestry systems among agriculture extension agents who are in regular contacts with farmers.</p>
<p>Responsibilities</p> <p>Coordination</p>	<p>Ministry of Agriculture shall provide policy guidelines and technical assistance for the diffusion and transfer of the technology.</p> <p>Ministry of Natural Resources shall provide guidance and framework in which the technologies are transferred and diffused and assist in mobilizing and managing needed funds.</p> <p>The Ministry of Local Governance in collaboration with local governance entities, farmers' associations/cooperatives and NGOs shall mobilize local stakeholders.</p> <p>Communities will implement the technologies and apply them efficiently</p>