

1.5. Action plan for application of conservative cultivation technologies

Conservation tillage practices reduce risk from drought by reducing soil erosion, enhancing moisture retention and minimizing soil impaction. In combination, these factors improve resilience to climatic effects of drought and floods. Improved soil nutrient recycling may also help combat crop pests and diseases. Conservation tillage benefits farming by minimizing erosion, increasing soil fertility and improving yield.

Conservation Agriculture is not only a technical procedure, but it can also be considered as an approach aimed at environment protection. Conservation Agriculture is based on reduced tillage or zero tillage. This process is intended to reduce greenhouse gas emissions (steam water, methane, carbon dioxide – CO²) and to sequester increased carbon in soils.

This technology is very untraditional for local communities in Azerbaijan as there was no practice of it in the past. There is only one initiative implemented under a small-scale project, but local farmers have shown great interest towards this new technology.

There are no specific programmes or strategies in Azerbaijan related to application of conservative cultivation technologies at cultivated lands. Some local-level and small-scale actions for promotion of technology application have been initiated under different development projects supported by international organizations.

Main barriers of technology diffusion could be listed as follows:

Barriers	Application of conservative cultivation
Economic/financial	- Weak access to acceptable financial means - High investment costs - Expensive feasibility study
Policy/regulatory	- No specific subsidy mechanism to promote application of new crop varieties
Technological	- Weak access to agricultural machinery
Information/capacity	- Low level of awareness of economic and ecological advantages - Weak agricultural extension services
Social	- Unfamiliarity with new technology - Small-scale lands

During the preparation of TAP, measures have been assessed taking into account their priorities, time scale, related stakeholders, key indicators for measuring implementation and funding resources.

TAP for the technology is provided in table 4.

Table 4: TAP for application of conservative cultivation technologies

#	Measures	Priority	Why it is important	Time scale	Related stakeholders, implementers	Key indicators	Risks	Funding sources	Costs
Economic/financial									
1	Develop mechanism for provision of long-term and low-interest loans, as well as grants through state, private and international funds	High	- Create access to financial sources	0-5 years	MED, MoA, MoF	- Easy access to funds created for farmers	- Low interest of financial institutions - Insufficient State funds	State, International	\$ 200,000
2	Develop specific subsidy mechanism to improve access to agricultural machinery	Medium	- Promote wide application of technology	5-10 years	MoA, MoF, MED	- new set of package to support local farmers during technology	- State procedures may be slow to endorse proposed recommendations	State, International	\$ 700,000
Information/capacity building									
3	Organize specific capacity building programmes (trainings, seminars, workshops) for local farmers	High	- Increase capacities	0-10 years	MoA, NGOs	- Increased capacity	- No major risk	State, International	\$ 600,000
4	Develop and conduct information campaigns on the advantages of applied technology	High	- Raise awareness level	0-5 years	MoA, NGOs	- Awareness level on advantages of new technology increase by 50%	- No major risk	State, International	\$ 500,000
5	Develop mechanism to support agricultural extension services	High	- Increase quality of agricultural extension services	0-10 years	MoA, MED, MoF, NGOs	- Capacity and quality of current extension service providers improved	- Weak collaboration with existing extension service providers	State, International	\$ 800,000
6	Technical support to R & D	High	- Improve	5-10 years	MED, MoA	- Improved	- No major	State,	\$ 500,000

#	Measures	Priority	Why it is important	Time scale	Related stakeholders, implementers	Key indicators	Risks	Funding sources	Costs
	institutions		technical capacity of R & D institutions			capacity of R & D institutions	risk	International	
Other measures									
7	Develop mechanism for implementation of demonstrative pilot projects	High	- Demonstrate practical advantages	0-5 years	MED, MoA	- Practical knowledge and skills of farmers increased	- Lack of funds	State, International	\$ 950,000