

**Socialist Republic of Vietnam***c) Finalizing national strategy*

Based on priority technology action plans in the sub-sectors, a national strategy and action plan for the plant genetics/plant breeding development targets are presented in [Table 27](#).

**Table 27 - National Strategy (technology transfer and development for adaptation)**

	0-5 years	5-10 years	10-15 years
<b>Large-scale, long-term technology</b>			
<b>Plant genetics/plant breeding</b>			
Strengthening and creating national focal centers	X		
Support policies for fundamental and long-term research	X		
Pilot programs for testing of applicability of research outcomes	X		
Support for organizations and individual experts in technology research	X		
Localization of GM products to the eco-region	X	X	
Large-scale testing for GM crops	X	X	
Strengthening capacity of agronomy educational institutions	X	X	
International cooperation/international consultants/overseas staff training	X	X	X

1.4.1.2 Brief summary of project ideas for international support (Annex 3)

**1.4.2 Shifting from rice to upland grains**

1.4.2.1 Technology action plan for shifting from rice to upland grains

*a) Aggregation and rationalization of measures identified for technology acceleration*

Similar to the section above, the list of measures identified for formulation of a national strategy to accelerate the development and transfer of technologies can be seen in [Table 28](#).

**Table 28 - Aggregation for strategy formulation**

Strategic measure	Accelerating innovation RD&D	Accelerating deployment	Accelerating diffusion
<b>Creation of networks</b>			
Creating a network of experts on agriculture, hydrology, industrial and fruit crops	X	XX	XX
<b>Policies and Measures</b>			
Locating areas that needs shifting from rice to upland grains	X	XX	XX
<b>Organizational/behavioral change</b>			

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Increasing the leading role of the central and local governments	X	XX	XX
Raising awareness of agricultural extension agencies on climate change	X	XX	XX
<b>Market support action</b>			
Analyzing the advantages of the technology	X	XX	XX
Introducing crop varieties with higher market value than rice	X	X	X
Replicating the proven success models			
<b>Skills training and education</b>			
Public awareness raising	XX	XXX	XXX

\* Note: see Note under [Table 25](#).

*b) Prioritization and characterization of technology acceleration measures*

Similar to above, the measures were prioritized and characterized through a detailed process for an action plan, as seen in [Table 29](#) below.

Table 29 - Prioritization and characterization of technology acceleration measures

Sector: Agriculture							
Specific Technology and category: Shifting from rice to upland grains/Medium scale, long-term							
Innovation stage: Deployment – Diffusion							
Measure (grouped under core elements)	Prio- rity	Why is it important?	Who should do it?	How should they do it?	Time- scale	Monitoring, reporting and verification for measure	Estimated costs (1,000 USD)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>Creation of networks</b>							
Creating a network of experts on agriculture, hydrology, industrial and fruit crops	1	There is a need for inter-sectoral coordination in assessing adaptive capacity of crop varieties.	MARD, MOST	Select experts of various principles Create a network and define the role of the stakeholders	3 years	MARD	86
<b>Policies and measures</b>							
Locating areas that needs shifting from rice to upland grains	1	There is a need for relocation of suitable areas for technology application	MARD	Investigate, assess the water scarcity and economic efficiency of wet rice cultivation practice Locate areas the need the new technology	5 years	MARD	144
<b>Organizational/behavioral change</b>							
Increasing the leading role of the central and local governments	1	Uniform instruction from the central through to local levels is the determining factor in the technology	MARD, provinces	Integrate the technology into action plan at the national and local levels Form multi-sectoral taskforces and steering	4 years	GoV	480

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		development		committees			
Raising awareness of agricultural extension agencies on climate change	2	Agricultural extension agencies have limited understanding of climate change  Agricultural extension agencies is the responsible organization for adaptation technology transfer	MARD	Prepare materials on climate change and adaptation measures  Organize training courses for agricultural extension officials	5 years	MARD	240
<b>Market support actions</b>							
Analyzing the advantages of the technology	1	Helps to raise awareness of public to change their cultivation behaviors.	MARD	Carry out research experiments and observations. Assess and demonstrate the advantages of the new technology	3 years	MARD	144
Introducing crop varieties with higher value than rice crops	2	Helps farmers to choose an appropriate method that can produce high economic benefits.	MARD	Organize exhibitions-workshops to promote the new technology and capacity of service suppliers	5 years	MOST; MARD	240
Multiplying the proven success modal	2	Because they are modals that have proven to be scientifically successful and have low risks.	MARD	Integrate into annual plans  Conduct study tours to learn about existing modals	5 years	MARD	240
<b>Skills training and education</b>							
Public awareness raising	1	Because of the long-standing traditional cultivation practices, people may not accept the new technology	MARD	Organize training courses and workshops to introduce about the technology and share experience	10 years	MARD, MOST	192

\* Note:

(1) See Note under [Table 26](#)



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Based on priority technology action plans in the sub-sectors, a national strategy and action plan for the technology development targets are presented in Table 30.

**Table 30 - National Strategy (technology transfer and development for adaptation)**

	0-5 years	5-10 years	10-15 years
<b>Large-scale, medium and short-term technology</b>			
<b>Shifting from rice to upland grains</b>			
Creating a network of experts on agriculture, hydrology, industrial and fruit crops	X		
Locating areas that needs shifting triple cropping to double cropping plus shrimp/fish/poultry farming	X		
Increasing the leading role of the central and local governments	X		
Raising awareness of agricultural extension agencies on climate change	X	X	
Analyzing the advantages of the technology	X		
Introducing crop varieties with higher value than rice crops	X	X	
Multiplying the proven success modal	X	X	
Public awareness raising	X	X	X

1.4.2.2 Brief summary of project ideas for international support (Annex 3)

**1.4.3 Shifting from triple cropping to double cropping plus shrimp/fish/poultry farming**

1.4.3.1 Technology action plan for shifting from triple cropping to double cropping plus shrimp/fish/poultry farming

*a) Aggregation and rationalization of measures identified for technology acceleration*

Similar to the above section, the list of measures identified for formulation of a national strategy to accelerate the development and transfer of technologies can be seen in Table 31.

**Table 31 - Aggregation for strategy formulation**

Strategic measure	Accelerating innovation RD&D	Accelerating deployment	Accelerating diffusion
<b>Creation of Network</b>			
Creating a network of experts with expertise on agriculture, hydrology, plant protection and livestock veterinary	X	XX	XX
<b>Policies and Measures</b>			
Locating areas that needs shifting triple cropping to double cropping plus shrimp/fish/poultry farming	X	X	X