

# Quick technology evaluation sheet

This sheet is designed to assess the viability and potential range of application for a technology. The objectives are to:

1. Clarify the target users (audience) for the technology and the problem being addressed
2. Articulate requirements for and benefits of the technology
3. Identify where the technology could be applied and cost implications

## 1) Target users and their needs

Who are your target users? (consider gender, their knowledge base, demographics such as age, land size, land tenure, access to credit and market, etc.)	
What problem does your intervention solve and what is main cause of the problem?	
Have the target users <b>widely</b> expressed interest in the problem? (Consider who was asked? Gender?)	
What fraction of possible users could realistically adopt and benefit?	

## 2) Summary description of differences between the new and present practice

	What are the major differences between the “new” and present practice
Consider factors like <ul style="list-style-type: none"> <li>• Requirements: e.g., Labor, inputs, credit and resource</li> <li>• When it is done</li> <li>• Who is involved (gender?)</li> <li>• Effects on the environment</li> </ul>	

Are inputs <b>easily</b> available (Do input providers exist)?	<input type="checkbox"/> Yes	<input type="checkbox"/> Could be an issue	
Are inputs <b>readily</b> affordable? (Consider gender)	<input type="checkbox"/> Yes	<input type="checkbox"/> Could be an issue	
Is more labor or capital required?	<input type="checkbox"/> Yes	<input type="checkbox"/> Could be an issue	
Is credit (if needed) <b>readily</b> available and affordable? (Consider gender, age, ...)	<input type="checkbox"/> Yes	<input type="checkbox"/> Could be an issue	
Is the technology <b>easy</b> to understand and test? (Consider gender)	<input type="checkbox"/> Yes	<input type="checkbox"/> Could be an issue	
How much training is required?	<input type="checkbox"/> A little	<input type="checkbox"/> A fair amount	<input type="checkbox"/> A lot
Note any fragile parts or maintenance needs?			

## 3) Solution - Where does it fit?

List any specific environmental conditions needed – e.g., climate, soil type, etc.

List any socio-economic conditions required (e.g., capital, market, infrastructure, culture)

## 4) Solution - Benefits?

Type of benefit:	Yield change? <input type="checkbox"/> Yes, % _____
	Quality change? <input type="checkbox"/> Yes
	Other (e.g., labor reduction,...) (If labor, are there gender aspects?)
Is there a definite market for product excess or better price for better quality? <input type="checkbox"/> Yes <input type="checkbox"/> Maybe	
Is benefit <b>obvious</b> to other farmers? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Maybe	
How long does it take to recover costs of the technology?	

## 5) Solution - Risks?

Specify any possible risks
What might limit adoption or testing?

## 6) Economic analysis - Cost comparison of new and old practices

Requirements	Present practice (\$)	New practice (\$)
Labor (Male/Female)	M F	M F
Inputs required		
Capital requirements		
Operating costs		
Credit costs		
Other		
Total		

For a full economic analysis, see the CIMMYT 1988 work book at:

<http://repository.cimmyt.org/xmlui/bitstream/handle/10883/830/13803.pdf>

## 7) Marginal Rate of Return (MRR): amount of additional revenue that the farmer could earn per each additional dollar that spends on the technology

	New – present (\$)
<b>Marginal return or benefit</b> (amount of revenue per additional item) =	
<b>Marginal cost</b> (cost per additional item produced) =	

**Marginal rate of return** (MRR) = Net benefit/Marginal cost\*100 (%) = \_\_\_\_\_

Note: 40-50% is often cited as a minimum MRR to attract farmer interest (CIMMYT, 1988).

## 8) Conclusion

What might limit adoption or testing? \_\_\_\_\_

What factors might you need to address to ensure success and technology spread?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_