

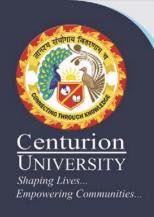
# Soil and water Conservation Engineering

Presented By-

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## **Land Capability Classification for Indian Ravine Lands**

- Land form		Land slope (%)	Distance from gully rim (m)	Land capability class		
1.	Table lands	0 to 1	beyound 60	I a salate		
2.	Table lands	1 to 3	beyound 60	II		
3.	Table lands and wide humps in between gullies	0 to 3	6 to 60	le casi III		
4.	Table lands	3 to 10	beyond 6	IV		
5.	Table lands	10 to 15	beyound 6	V		
6.	Marginal lands between the gully rim and table lands	0 to 15	within 6	VI		
7.	Table land	15 to 25	es For Sitable Cil	VI		
8.	Very small, medium gullies	en anian	nation, in an include the	VI '		
9.	Table lands	25	le and from class	VII		
10.	Deep and narrow gullies	02 - 05	view autorities b	VII		



## Land Capability Classification for Western & Eastern Ghats

Description Description	Class		
Slope 1 to 2%, deep soil	series to the market		
Slope 2 to 10%, deep soil	on the provided frame particles.		
Slope 10 to 15%, deep soil	III		
Slope 16 to 33%, deep soil			
Slope 0 to 2% in swamps, flooded, ill drained area	IV		
Slope 0 to 33%, shallow soils, rock out crops, denuded hill rocks, areas with severe erosion hazard, danger of flooding and involving poor drainage	V, VI and VII		
Slope greater than 33% with deep soil			
Precipitous slopes, badly eroded hill rocks, saline alkaline soils, flooded and poor drained areas	VIII		



### Treatment Oriented Land Capability Classification

1. Class of slope

Gentle slope

Moderate slope

Strong slope.

Very strong slope

Steep

Very steep

2. Soil depth

Class of soil depth

Deep

Moderately deep

Shallow

Very shallow

Range

less than 7°

 $7 - 15^{\circ}$ 

15 — 20°

 $20 - 25^{\circ}$ 

 $25 - 30^{\circ}$ 

> 30°

Range (cm)

more than 90

50 - 90

20 - 50

less than 20

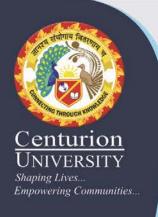


#### **Limitations of Different LUCC**

	Practices	Class-I	Class-II	Class-III	Class-IV
A	Soil conservation practices	port sories	equia bijis	ari I (3)	aski)
	(Agronomical)	Shidenar	tailed to	es aft in	o bš naili
	Contour cultivation	N	Y	Y	Y
	Contour strip cropping	N	Y	Y	Y
	Stubble mulching	N	Y	Y	Y
	Conservation crop residues	Y	Y	Y	Y
	Crop rotation	Y	Y	bnsynon	Y
	Cover cropping	Y	Y	Y	Y
	Green manuring	Y	Y	Y	Y
	Liming	Y	Y	Y C	Y
	Fertilizing and Manuring	Y	Y	Y	Y
В	Mechanical practices	out where	ghizhig.	(snotte)(ii)	uti wanola
	Contour bunding	N	Y	Y	Y
	Graded bunding	N	Y	Y	Y
	Bench terracing	N	N	Y	Y
C	Drainage	N	Y	Y	Y
D	Reclamation of saline and Alkali soils	N	Y	Y	Y
E	Ley farming	N	N	N	Y

N → denotes not suitable

Y → denotes yes suitable.



#### **Limitations of Different LUCC**

- 1. Class I land has not any limitation, can be safely used for all practices, starting from very intensive cultivation to wild life. Since this land has sufficient capability to produce good crop yield, therefore predominantly recommended for very intensive cultivation only and not recommended for other practices like grazing, forestory or wild life purposes.
- 2. Class II. land comprises some limitation, by virtue of which it is not recommended for very intensive cultivation purposes.
- 3. Class III. land has greater limitations than the class II land regarding fertility, slope, subject to erosion and risk of damage etc., as a result not allowed for intensive as well as very intensive crop cultivation, but can be used for crops, provided that the plant cover should be maintained.
- 4. Class IV. lands involve severe limitations compared to class III land, therefore they are not recommended for intensive crop cultivation, but cultivated occasionally; normally hay or pasture crops are grown.



# Limitations of Different LUCC Chart and their Intensity of Use

	Increased intensity of use									
Land Capability Class		Wild life	Forestory	Limited grazing	Moderate grazing	Intensive grazing	Limited cultivation	Moderate	Intensive	Very Intensive cultivation
sp	I	<b>产量</b>					7 7 7		8446	The state of the s
Increased limitations & hazards	II						33	an one	d a	JB 7 30
ations 6	III		R 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Suitable		1 T T		The same	perio	Applie A
d limit	IV			fo	or	A MARINE		THE		
ncrease	V	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	5 W	use						
	VI					Marian Marian	Not	suitable for	use	
	VII				The state of the s					
1	VIII		7		2 1		36.53	35 575	Spirit Spirit	Definition of the second