

## APPENDIX XIV

**Table 1** Terrain slope ratings for rain-fed conditions (Fm: 1300-1800)  
**High Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100			50	50				100			100			100
Annual 2	100			100			100			50	50				100			100			100
Wetland Rice	100			50	50			50	50			100			100			100			100
Sugarcane	100			100			50	50			50	50			100			100			100
Olive	100			100			100				100				100			100			100
Perennials	100			100			100				100				100			100			100
Pasture	100			100			100			100				50	50			100			100
Forage Legumes	100			100			100			50	50				100			100			100

### Intermediate Inputs

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100			50	50			50	50			100			100
Annual 2	100			100			100			50	50			50	50			100			100
Wetland Rice	100			50	50			100				100			100			100			100
Sugarcane	100			100			50	50			50	50			100			100			100
Olive	100			100			100			50	50			50	50			100			100
Perennials	100			100			100				100			25	75			100			100
Pasture	100			100			100			100			50	50			25	75			100
Forage Legumes	100			100			100			100			25	50	25			100			100

### Low Inputs

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100			100				50	50			100			100
Annual 2	100			100			100			50	50			50	50			100			100
Wetland Rice	100			50	50			100				100			100			100			100
Sugarcane	100			100			50	50			50	50			100			100			100
Olive	100			100			100			50	50			50	50			100			100
Perennials	100			100			100				100			25	75			100			100
Pasture	100			100			100			100			50	50			25	75			100
Forage Legumes	100			100			100			100			25	50	25			100			100

**Modified Fournier index:**  $Fm = 12 \sum_{i=1}^{12} \frac{p_i^2}{Pann}$  where:  $p_i$  = rainfall of month  $i$  and  $Pann$  = annual rainfall total

**Table 2      Terrain slope ratings for rain-fed conditions (Fm: 1800-2200)**

**High Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100			25	50	25			100			100			100
Annual 2	100			100			100			25	50	25			100			100			100
Wetland Rice	100			50	50			50	50			100			100			100			100
Sugarcane	100			100			50	50			25	75			100			100			100
Olive	100			100			100				50	50			100			100			100
Perennials	100			100			100				50	50			100			100			100
Pasture	100			100			100			100				25	75			100			100
Forage Legumes	100			100			100			25	50	25			100			100			100

**Intermediate Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100			25	50	25			100			100			100
Annual 2	100			100			100			25	50	25			100			100			100
Wetland Rice	100			50	50			100				100			100			100			100
Sugarcane	100			100			50	50			25	75			100			100			100
Olive	100			100			100			25	50	25			100			100			100
Perennials	100			100			100				50	50			100			100			100
Pasture	100			100			100			100			50	50			25	75			100
Forage Legumes	100			100			100			100				50	50			100			100

**Low Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100			50	50				100			100			100
Annual 2	100			100			100			25	50	25			100			100			100
Wetland Rice	100			50	50			100				100			100			100			100
Sugarcane	100			100			50	50			25	75			100			100			100
Olive	100			100			100			25	50	25			100			100			100
Perennials	100			100			100				50	50			100			100			100
Pasture	100			100			100			100			50	50			25	75			100
Forage Legumes	100			100			100			50	50			50	50			100			100

**Modified Fournier index:**  $Fm = 12 \sum_{i=1}^{12} \frac{p_i^2}{P_{ann}}$  where:  $p_i$  = rainfall of month  $i$  and  $P_{ann}$  = annual rainfall total

**Table 3      Terrain slope ratings for rain-fed conditions (Fm: 2200-2500)**

**High Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100				50	50			100			100			100
Annual 2	100			100			100				50	50			100			100			100
Wetland Rice	100			50	50			50	50			100			100			100			100
Sugarcane	100			100			50	50				100			100			100			100
Olive	100			100			100					100			100			100			100
Perennials	100			100			100					100			100			100			100
Pasture	100			100			100			100					100			100			100
Forage Legumes	100			100			100				50	50			100			100			100

**Intermediate Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100				50	50			100			100			100
Annual 2	100			100			100				50	50			100			100			100
Wetland Rice	100			50	50			100				100			100			100			100
Sugarcane	100			100			50	50				100			100			100			100
Olive	100			100			100				50	50			100			100			100
Perennials	100			100			100					100			100			100			100
Pasture	100			100			100			100			25	50	25			100			100
Forage Legumes	100			100			100				100			25	75			100			100

**Low Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100				100				100			100			100
Annual 2	100			100			100				50	50			100			100			100
Wetland Rice	100			50	50			100				100			100			100			100
Sugarcane	100			100			50	50				100			100			100			100
Olive	100			100			100				50	50			100			100			100
Perennials	100			100			100					100		50	100			100			100
Pasture	100			100			100			100			25	50	25			100			100
Forage Legumes	100			100			100				100			25	75			100			100

**Modified Fournier index:**  $Fm = 12 \sum_{i=1}^{12} \frac{p_i^2}{P_{ann}}$  where:  $p_i$  = rainfall of month  $i$  and  $P_{ann}$  = annual rainfall total

**Table 4      Terrain slope ratings for rain-fed conditions (Fm: 2500-2700)**

**High Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100				25	75			100			100			100
Annual 2	100			100			100				25	75			100			100			100
Wetland Rice	100			50	50			50	50			100			100			100			100
Sugarcane	100			100			50	50				100			100			100			100
Olive	100			100			100					100			100			100			100
Perennials	100			100			100					100			100			100			100
Pasture	100			100			100			50	50				100			100			100
Forage Legumes	100			100			100				25	75			100			100			100

**Intermediate Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100				25	75			100			100			100
Annual 2	100			100			100				25	75			100			100			100
Wetland Rice	100			50	50			100				100			100			100			100
Sugarcane	100			100			50	50				100			100			100			100
Olive	100			100			100				25	75			100			100			100
Perennials	100			100			100					100			100			100			100
Pasture	100			100			100			100				25	75			100			100
Forage Legumes	100			100			100				50	50			100			100			100

**Low Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			100				50	50			100			100			100
Annual 2	100			100			100				25	75			100			100			100
Wetland Rice	100			50	50			100				100			100			100			100
Sugarcane	100			100			50	50				100			100			100			100
Olive	100			100			100				25	75			100			100			100
Perennials	100			100			100					100			100			100			100
Pasture	100			100			100			100				25	75			100			100
Forage Legumes	100			100			100				50	50			100			100			100

**Modified Fournier index:**  $Fm = 12 \sum_{i=1}^{12} \frac{p_i^2}{Pann}$  where:  $p_i$  = rainfall of month i and Pann = annual rainfall total

**Table 5 Terrain slope ratings for rain-fed conditions (Fm > 2700)**

**High Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			50	50				100			100			100			100
Annual 2	100			100			50	50				100			100			100			100
Wetland Rice	100			50	50			25	75			100			100			100			100
Sugarcane	100			100			25	50	25			100			100			100			100
Olive	100			100			50	50				100			100			100			100
Perennials	100			100			50	50				100			100			100			100
Pasture	100			100			100				50	50			100			100			100
Forage Legumes	100			100			50	50				100			100			100			100

**Intermediate Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			50	50			25	75			100			100			100
Annual 2	100			100			50	50			25	75			100			100			100
Wetland Rice	100			50	50			50	50			100			100			100			100
Sugarcane	100			100			25	50	25			100			100			100			100
Olive	100			100			50	50			25	75			100			100			100
Perennials	100			100			50	50				100			100			100			100
Pasture	100			100			100			100				50	50			100			100
Forage Legumes	100			100			50	50			50	50			100			100			100

**Low Inputs**

Slope Gradient Classes	0-2 %			2-5%			5-8%			8-16%			16-30%			30-45%			> 45%		
Crop Groups	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N	S1	S2	N
Annual 1	100			100			50	50			50	50			100			100			100
Annual 2	100			100			50	50			25	75			100			100			100
Wetland Rice	100			50	50			50	50			100			100			100			100
Sugarcane	100			100			25	50	25			100			100			100			100
Olive	100			100			50	50			25	75			100			100			100
Perennials	100			100			50	50				100			100			100			100
Pasture	100			100			100			100				50	50			100			100
Forage Legumes	100			100			50	50			50	50			100			100			100

**Crop Groups:** Annual 1: wheat, barley, rye  
Annual 2: (maize, sorghum, pearl millet, foxtail millet, white potato, sweet potato, phaseolus bean, chickpea, cowpea, soybean and groundnut, sunflower, cotton, sugar beet, rape  
Perennials: cassava, oil palm, banana, plantain