

# WOLLO UNIVERSITY

## DEPARTMENT OF AGRICULTURAL ECONOMICS

### AGRICULTURAL PROJECT PLANNING AND ANALYSIS (AGEC522)

#### **ASSIGNMENT 2 SUBMISSION DATE: 30/05/2020**

Q1. Consider the following costs and benefits to determine the feasibility of the project (Irrigation Project)

Year	Investment cost	Operating costs	Benefit streams	Cost streams
0	40000		-	40000
1	50000		-	50000
2	25000		-	25000
3		70000	75000	70000
4		70000	80000	70000
5		75000	90000	75000
6		95000	100000	95000
7		92000	110000	92000
8		95000	120000	95000
9		105000	130000	105000
10		100000	120000	100000

Assume a discount rate of 2%

Use discount factor and annuity table attached to this.

Compute

- 1) Net benefits
- 2) Payback period
- 3) Discounted net Present Value (NPV)
- 4) Discounted Benefits to cost ratio (B/C)
- 5) Discounted net Benefits to Investment ratio (NB/I)
- 6) Financial Rate of Return (IRR)
- 7) Make decision on the feasibility of the project

Q2. Consider two projects (A and B).

Year	Netbenefits (A)	Netbenefits (B)
0	400	380
1	350	280
2	350	280
3	350	280
4	350	280

Assume a discount rate of 10%

Use discount factor and annuity table attached to this.

Compute

- 1) Discounted net Present Value (NPV)
- 2) Discounted Benefits to cost ratio (B/C)
- 3) Financial Rate of Return (IRR)
- 4) Make decision on the feasibility of the project