

Pilot Testing of Volumetric Pricing

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Per Capita Consumption

One day per person - 50 liters

To produce food for one
day per person - 3.250 liters

Rice alone

**Needs *3,000-5,000 liters*
to produce *1 kg of rice***







**NIA-MRIIS
DISTRICT IV**

CONSTRUCTION of REPLOGLE FLUME

Lat. DzB Sta. 0+815

WRDP

START: JANUARY 30, 2003

COMPLETION: FEBRUARY 5, 2003

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Roxas Kuya RIS

1. Water wheel flow meter fabricated and installed on Feb. 27, 2001.
2. Riplogle flume installed on Oct. 24, 2003.
3. Deadlock which flowmeter to use.
4. Accuracy of Riplogle flume at Lateral D2B was tested versus a staff gauge with 98% accuracy consultant said it is magnificent.
5. However, the accuracy of the flywheel at Roxas-Kuya RIS also tested versus staff gauge with 98-98.1% accuracy- the consultant said demolish it.
6. Granting the staff gauge is the more accurate device versus waterwheel then Roxas-Kuya is losing:

- 2,528 cu.m of unbilled water per day for 440 ha or

- at 0.42/cu.m this is only 0.21/ha/day.

7. The loss is tolerable and considering the convenience waterwheel can be adopted.
8. Latest reading of water consumption is 35,000 cu.m/ha which is too high.

Magapit PIS

Region 2, Cagayan Province

1. Construction of Riplogle Flume completed Oct. 24, 2003. Discharge reading commenced dry season of 2004.
2. Volumetric reading was recorded from Dec. 01, 2003 to March 30, 2004 (121 days).
3. Irrigated area = 318 ha.
Consumption = 3,601,130 cu.m or
11,324 cu.m/ha.
4. At present a farmer pays P3,375 during wet and P3,750 during dry season.
5. Initial computation for rate setting can be made via volumetric pricing.

Lateral D2B

District 4, MRIIS

1. Discharge canal measurement started in year 2000 using staff gauge.
2. Agreed rate was at 0.042/cu.m.
3. Riplogle Flume completed in Feb. 2003.
4. Initial findings show volumetric pricing not applicable while AO 17 is in effect.
5. Official launching commenced in Dec. 2003 to April 2004.
6. Result shows NIA will be losing P155/ha if volumetric is applied versus area based billing.
7. Water savings attained was only 7.5% and 2.2% on water input for dry and wet season respectively.

Results:

1. Little room for pricing

P0.042

above P0.05 = Farmers pay higher than existing rates (area based)

below P0.042 = NIA's income will be insufficient for O & M.

2. NIA will decrease its income

via volumetric = ave. of P1,360/ha/annum

via area based = P1,500/ha/annum

3. Water Saving

volumetric = 7.5% and 2.2% water reduction dry/wet season

other scheme = 38.0% to 50.0% reduction in water input

4. At 11,000 cu.m/ha consumption per ha NIA's income by volumetric is P462/ha way below O & M cost/ha.
5. Unwise investment no financial benefit.

Conclusion:

1. The water save thru volumetric significantly small compare with other available options.
2. It is not logical for NIA to invest where no given benefit in sight.
3. For a water saving technique to be attractive for adoption it should have clear foreseeable benefit to farmers.
4. FAO Water Report # 28 states "To bring any significant change in water use requires that users be charge volumetrically at prices many times greater than those required to cover costs." This challenge has yet to be recognized and addressed politically and technically by NIA.