SWIM and Horizon 2020 Support Mechanism

Working for a Sustainable Mediterranean, Caring for our Future

Estimating the Cost of Environmental Degradation in Lebanon

(EFH-LB-3)

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SESSION 5: ESTIMATING THE COSTS OF LAND DEGRADATION AND RECLAMATION

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METHOD

Terraced agricultural land in Lebanon is around 100,000 hectares of which 60,000 hectares were at various stages of degradation (Zurayk 1992 and 1994).

According to World Bank documents for the Agriculture Infrastructure Development Project, about 40,000 hectares of terraced land were in need of assistance to reverse degradation. The estimated cost of degradation is based on an approximation of the annual return on land (gross value less operating, capital, and infrastructure cost at 12% return) of irrigated fruit trees and vegetable cultivation if terraced

land is fully restored and non-degraded versus continuation of degradation and land abandonment.

The above calculations of approximate return on land are based on the project analysis documents of the World Bank (1996)

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PROPOSED FRAMEWORK

- I propose a new framework for which you will have to collect data
- I have used some rough numbers, some of which are taken from Lebanon´s agricultural statistics.
- The spreadsheet divides the land into irrigated and rainfed.
- Each type of land is divided further into undegraded and slight, medium, severe and very severely degraded.

PROPOSED FRAMEWORK

- Estimates of productivity for each kind of land are made using average productivity data for Lebanon and making a guess of loss of productivity for each category of land
- On this basis loss of output per year due to degradation can be made.
- Data for rehabilitation are taken from estimates in the region, which should be replaced with local data.
- On that basis the costs of reclamation can be made and compared with losses.

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THANK YOU

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