WinDASI: A Software for Cost-Benefit Analysis of Investment Projects

Installation Note
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By

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for the

Food and Agriculture Organization of the United Nations, FAO

About EASYPol

EASYPol is an online, interactive multilingual repository of downloadable resource materials for capacity development in policy making for food, agriculture and rural development. The EASYPol homepage is available at: www.fao.org/tc/easypol.

EASYPol has been developed and is maintained by the Agricultural Policy Support Service, FAO.

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Acknowledgements

This module draws upon the TCAS publication: WinDASI User Manual, Training Materials for Agricultural Planning, 43 FAO - Rome 2000, whose main contributors are Carlo Cappi, who is also the main designer of the computer software, and Lorenzo Giovanni Bellù. The author would like to acknowledge with thanks the contribution of Francesca Petrina, who volunteered for reviewing the first draft of this module and to all the others who contributed in different ways to this final version. The WinDASI software was developed by Laurent Cazalet and Gilles Cappella under the supervision of Mahmoud Allaya at the “Institut Agonomique Méditerranéen de Montpellier (IAM-M)-France.”
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1 SUMMARY

This module contains the WinDASI software and a note that illustrates how to carry out the installation of WinDASI on your personal computer. WinDASI is a software for Cost-benefit Analysis (CBA) of investment projects that allows the analysis of the financial and economic viability of investments. In particular, it facilitates the systematic storage of data for Cost-Benefit Analysis and allows to calculate: a) flows of physical quantities of outputs, inputs and investment items; b) flows of current, discounted and cumulative costs, benefits, and net benefits; c) flows of incremental (With-Without project) current, discounted and cumulative net benefits; and e) indicators of financial and economic viability such as the Net Present Value (NPV), the Internal Rate of Return (IRR), the Benefit/Cost Ratio, (BCR), the Switching Values (SVs) and Sensitivity tests. Instructions are provided on how to carry out calculations for the different components of an investment project, notably: plans, zones and projects (i.e. at different levels of aggregation). In addition, the software can deal with comparisons of different projects and alternative scenarios (e.g. with-project versus without-project), and normal and phased modes of calculation.

2 INTRODUCTION

Objectives
The main objective of this module is to drive the user to install the WinDASI software on her/his personal computer, after downloading it from the EASYPol site.

Target audience
This module targets current or future practitioners in Cost-Benefit Analysis (CBA) of investment projects, working in public administrations, in NGO’s, professional organizations or consulting firms. Also academics can find this material useful to support their courses in CBA and development economics. Furthermore, students can use this material to improve their skills in CBA and complement their curricula.

Required background
To fully understand the content of this module the user must be familiar with elementary notions about how to of download, open and install zip and executable files on personal computers.

On the other hand, to use WinDASI, notions of Cost-Benefit Analysis are required, such as:

- concepts of project cycle management;
- concepts of financial analysis;
- concepts of economic analysis.
Selected EASYPol modules can be used to strengthen the background of the reader and to further expand its knowledge about investment projects and cost-benefit analysis. Links with relevant EASYPol modules, further readings and references are reported both in the text and in the last section of the module\(^1\).

### 3 HOW TO INSTALL WINDASI

You may run WinDASI under Windows95 and subsequent versions.

The WinDASI program is downloadable as a zip file named WinDASI.zip from the EASYPol site [www.fao.org/tc/easypol](http://www.fao.org/tc/easypol)\(^2\). Download the file WinDASI.zip on your desktop, following the EASYPol downloading procedures, and then install the software following the procedure here below.

i. Click on the icon of the file WinDASI.zip. A new window with the content of the zip file will pop up. There you will see three zip files named: disk1.zip, disk2.zip and exedisk.zip.

ii. Click on the icon of the zip file disk1.zip. A new window with the content of the zip file will pop up. Then double click on the icon of the file Setup.exe and follow the instructions prompted on the screen. This will install the WinDASI database.

iii. Once the database is installed, click on the icon of the zip file disk2.zip. A new window with the content of the zip file will pop up. Double click on the icon of the file Install.exe and follow the instructions prompted on the screen. This will install the WinDASI program.

iv. Create a link to the file windasi.exe and copy the WinDASI icon on the desktop.

v. In the WinDASI directory (generated by the Set-up and Install programs), create a new folder calling it Exercises.

vi. Click on the icon of the zip file exedisk.zip. A new window with the content of the zip file will pop up. Copy the content of the file Exedisk.zip into the folder Exercises.

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\(^1\) EASYPol hyperlinks are shown in blue, as follows:
- a) training paths are shown in **underlined bold font**;
- b) other EASYPol modules or complementary EASYPol materials are in **bold underlined italics**;
- c) links to the glossary are in **bold**; and
- d) external links are in **italics**.

\(^2\) A CD is also available, attached to the hard copy manual. A hard copy of the manual in English, French or Spanish can be obtained from: [http://www.fao.org/catalog/inter-e.htm](http://www.fao.org/catalog/inter-e.htm) or send a “feedback” message through the EASYPol home page [www.fao.org/tc/easypol](http://www.fao.org/tc/easypol).
To run the WinDASI program, either click the WinDASI icon on the desktop or open Windows Explorer, open the WinDASI folder and click on the file WinDASI.exe.

In order to run the exercises through the WinDASI program, first open the WinDASI program then load the .WDS files.

To remove (uninstall) WinDASI from your computer:

1. delete the WinDASI directory and its sub-directories: Data and Exercises;
2. delete the IDAPI directory; and
3. delete the WinDASI icon by clicking on it with the right-hand mouse button and selecting Delete.

4 EASYPOL LINKS

This module belongs to a set of EASYPol modules which illustrate how to use the WinDASI application for financial and economic analysis of projects. After installing WinDASI, the user can learn how to handle WinDASI for cost benefit analysis of investment projects by going through the following EASYPol modules:

- EASYPol Module 019: WinDASI-A Software for Cost-Benefit Analysis of Investment Projects: Inserting and Managing Data
- EASYPol Module 020: WinDASI-A Software for Cost-Benefit Analysis of Investment Projects: Calculations Performed by the Software
- EASYPol Module 021: WinDASI Exercise: NGAMO1: An Irrigation Project: Impacts of Irrigation on Traditional Farms
- EASYPol Module 022: WinDASI Exercise: NGAMO2: An Irrigation Project, Impacts of Irrigation and Mechanization on Traditional Farms
- EASYPol Module 023: WinDASI Exercise: NGAMO3: Economic Impacts of an Irrigation and Mechanization Project
- EASYPol Module 024: WinDASI Exercise: NGAMO4: Starting a Coffee Plantation in a Phased Mode

In addition, a case study presenting the use of WinDASI to analyze a real project is reported in the EASYPol module:

- EASYPol Module 039: WinDASI-A Software for Cost-Benefit Analysis of Investment Projects: Case Study – Crop Intensification and Coffee Plantation
Module metadata

1. EASYPol module 018

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4. Summary

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5. Date

   November 2005

6. Author(s)

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7. Module type

   - Thematic overview
   - Conceptual and technical materials
   - Analytical tools
   - Applied materials
   - Complementary resources

8. Topic covered by the module

   - Agriculture in the macroeconomic context
   - Agricultural and sub-sectoral policies
   - Agro-industry and food chain policies
   - Environment and sustainability
   - Institutional and organizational development
   - Investment planning and policies
   - Poverty and food security
   - Regional integration and international trade
   - Rural Development

9. Subtopics covered by the module

10. Training path

    Investment planning for rural development

11. Keywords