



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

COMFAR III EXPERT

SOFTWARE FOR PROJECT
APPRAISAL AND ANALYSIS

COMFAR



WHAT IS COMFAR III?

The United Nations Industrial Development Organization (UNIDO) has been working with governments, business associations and individual companies to solve industrial problems – and equip them to help themselves – for more than 50 years. One of the tools developed by UNIDO to serve this purpose is COMFAR, the Computer Model for Feasibility Analysis and Reporting

The first version of the software was released in 1983. Since then, UNIDO has been constantly developing and improving this tool. The third generation, COMFAR III Expert for Windows, was released in 1995. In order to meet the technical developments as well as users requests, upgrades are being incorporated yearly. COMFAR has currently more than 11,000 users in 160+ countries and it is complementing the UNIDO Manual for the Preparation of Industrial Feasibility Studies.

UNIDO COMFAR III Expert is a valuable aid in the analysis of investment projects. The main module of the program accepts financial and economic data, produces financial and economic statements and graphical displays and calculates measures of performance. Supplementary modules assist in the analytical process. Cost-benefit and value-added methods of economic analysis developed by UNIDO are included in the program, with allowance made for the methods used by major international development institutions.

The programme is applicable for the analysis of investment in new projects and expansion or rehabilitation of existing enterprises as, e.g., in the case of re-privatization projects. For joint ventures, the financial perspective of each partner or class of shareholders can be developed. Analysis can be performed using a variety of assumptions concerning inflation, currency revaluation and price escalations

GENERAL DESCRIPTION OF COMFAR III

COMFAR III Expert Facilitates financial and economic appraisal of investment projects. It permits the user to simulate the short- and long-term financial and

economic situation of industrial and non-industrial investment projects.



Easy to Access – Easy to Operate



User-Defined Flexibility



Cash Flow Model



Financial Analysis (Enterprise Level)



Economic Analysis (Macro Level)



Graphical Presentation of Results



Sensitivity Analysis



Non-Industrial Investment Projects



EASY TO ACCESS – EASY TO OPERATE

COMFAR III Expert's graphical user interface makes it very user-friendly and, therefore, ideal even for those with no special computer knowledge.

The latest version of the software (v3.3a) is compatible with MS Windows 7/8/10 and 11 by installing the accompanying HASP driver for the specific operating system version.



USER-DEFINED FLEXIBILITY

COMFAR III Expert allows users greater flexibility in specifying how detailed an analysis they require.

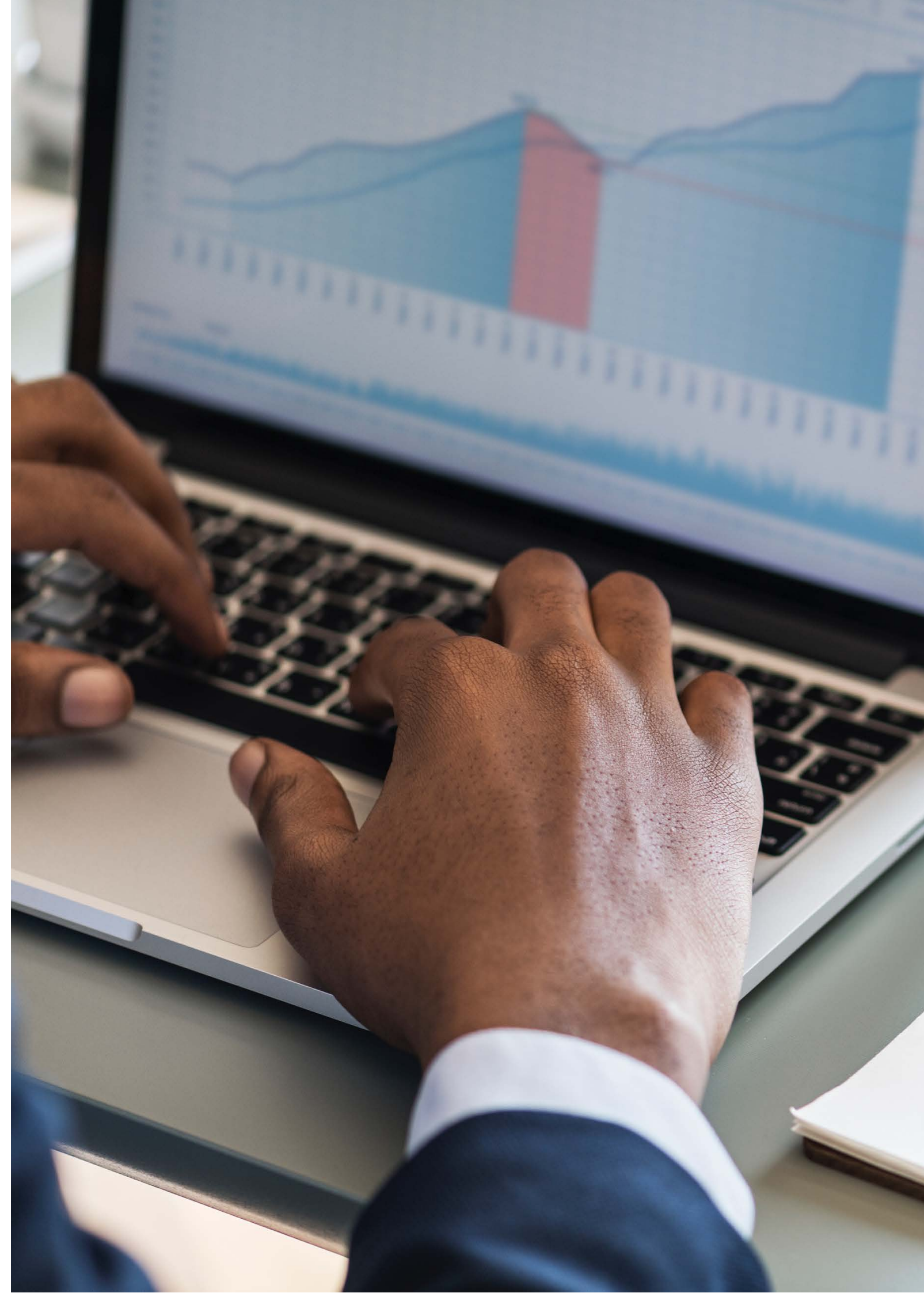
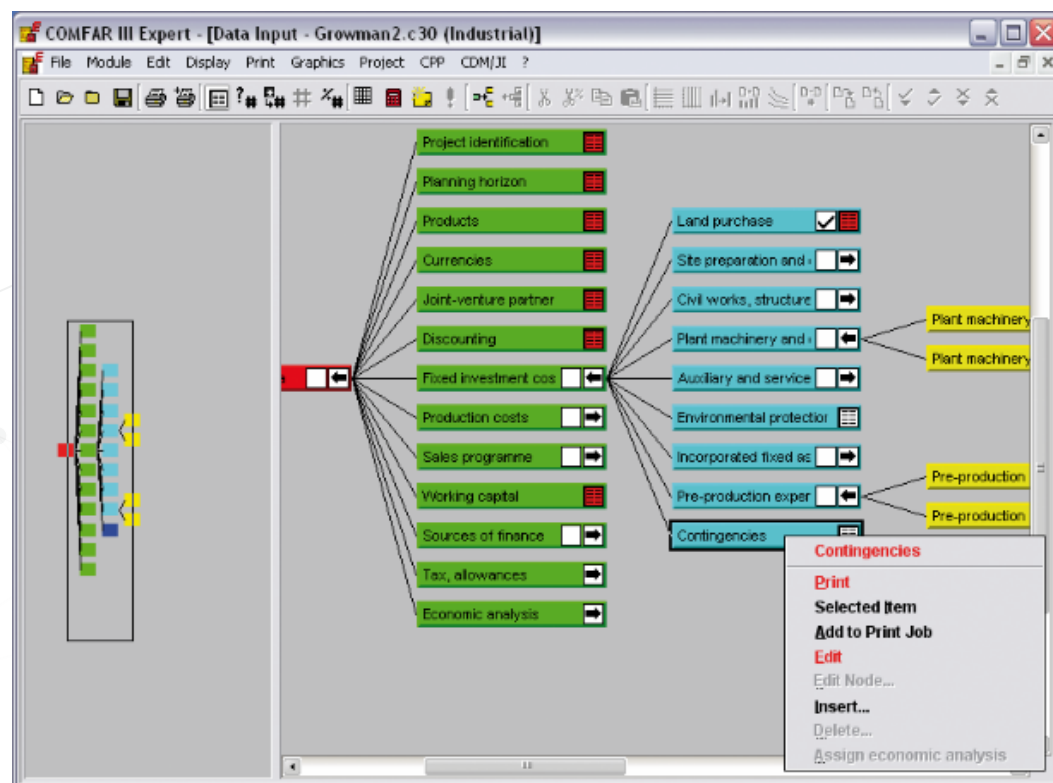
The main features are:

- » Variable planning horizon: up to 60 years
- » Variable time structure: construction and startup
- » Up to 20 products can be specified
- » Data may be entered in up to 20 currencies
- » Economic analysis option
- » Direct costing option
- » Price escalation / inflation option

After having specified the project type (industrial, agro-industrial, infrastructure, tourism or mining) and the level of analysis (opportunity or feasibility study), the user is guided through data entry, data saving, calculations, display and printing of result schedules and graphical charts.

The standard structure of investment, operating and marketing costs may be expanded to allow the entry of sub-items. Sources of finance include equity, long-term loans, short-term finance and definition of conditions of profit distribution.

With these facilities, COMFAR III Expert can be applied to all kinds of investment projects, small- and medium-scale business investments and analysis of large-scale projects or complex production units, e.g. chemical plants as well as service-oriented projects.





CASH FLOW MODEL

The COMFAR system distinguishes cash flows in domestic and foreign currencies while allowing for changes in exchange rates. A number of standard functions are available to compute net working capital, debt service, annual depreciation of fixed assets and corporate tax. From a variety of financial and efficiency ratios, the user may select those needed for project appraisal.

Direct costing, allocation of indirect costs to profit centres and analysis in constant or current prices are also available. An auxiliary module supports project developers seeking to develop Clean Development Mechanism (CDM) or Joint Implementation (JI) projects in those sectors, where projects aiming at reducing Greenhouse Gas (GHG) emissions can take place.



FINANCIAL ANALYSIS (ENTERPRISE LEVEL)

For financial analysis, COMFAR III produces, the following result schedules: Summary sheet, Investment costs, Production costs, Production and sales program, Source of finance and debt service, Business result (financial cash flow, discounted cash flow, income

statement, balance sheet (with ratios), data on direct costing and product profitability), Financial and efficiency ratios and Break-even conditions. User-defined sub-items may be displayed and printed within the standard schedules.

	2010	2011	2012	2013	2014
TOTAL CASH INFLOW	3,348.80	5,856.30	7,346.89	9,403.52	11,301.39
Inflow funds	3,348.80	5,856.30	1,073.88	28.52	51.39
Inflow operation	0.00	0.00	6,875.00	9,375.00	11,250.00
Other income	0.00	0.00	0.00	0.00	0.00
TOTAL CASH OUTFLOW	3,319.80	5,393.30	7,813.53	9,694.11	11,232.69
Increase in fixed assets	3,291.00	4,727.00	0.00	0.00	0.00
Increase in current assets	0.00	390.00	1,281.84	255.65	283.40
Operating costs	0.00	0.00	5,681.50	6,887.50	7,847.00
Marketing costs	0.00	0.00	332.50	362.50	395.00
Income (corporate) tax	0.00	0.00	0.00	0.00	0.00
Financial costs	26.80	276.30	557.69	600.15	469.21
Loan repayment	0.00	0.00	0.00	1,153.02	1,341.02
Dividends	0.00	0.00	0.00	355.29	807.07
Equity capital refund	0.00	0.00	0.00	0.00	0.00
SURPLUS (DEFICIT)	29.00	463.00	135.35	-290.60	68.69
CUMULATIVE CASH BALANCE	29.00	492.00	627.35	336.75	405.45
Foreign surplus (deficit)	-71.00	-26.00	121.13	-205.38	-69.49
Local surplus (deficit)	100.00	489.00	14.23	-85.21	138.18
Foreign cumulative cash balance	-71.00	-97.00	24.13	-191.26	-250.74
Local cumulative cash balance	100.00	589.00	603.23	518.01	656.20
Net flow of funds	3,320.00	5,590.00	516.20	-2,079.84	-2,665.81

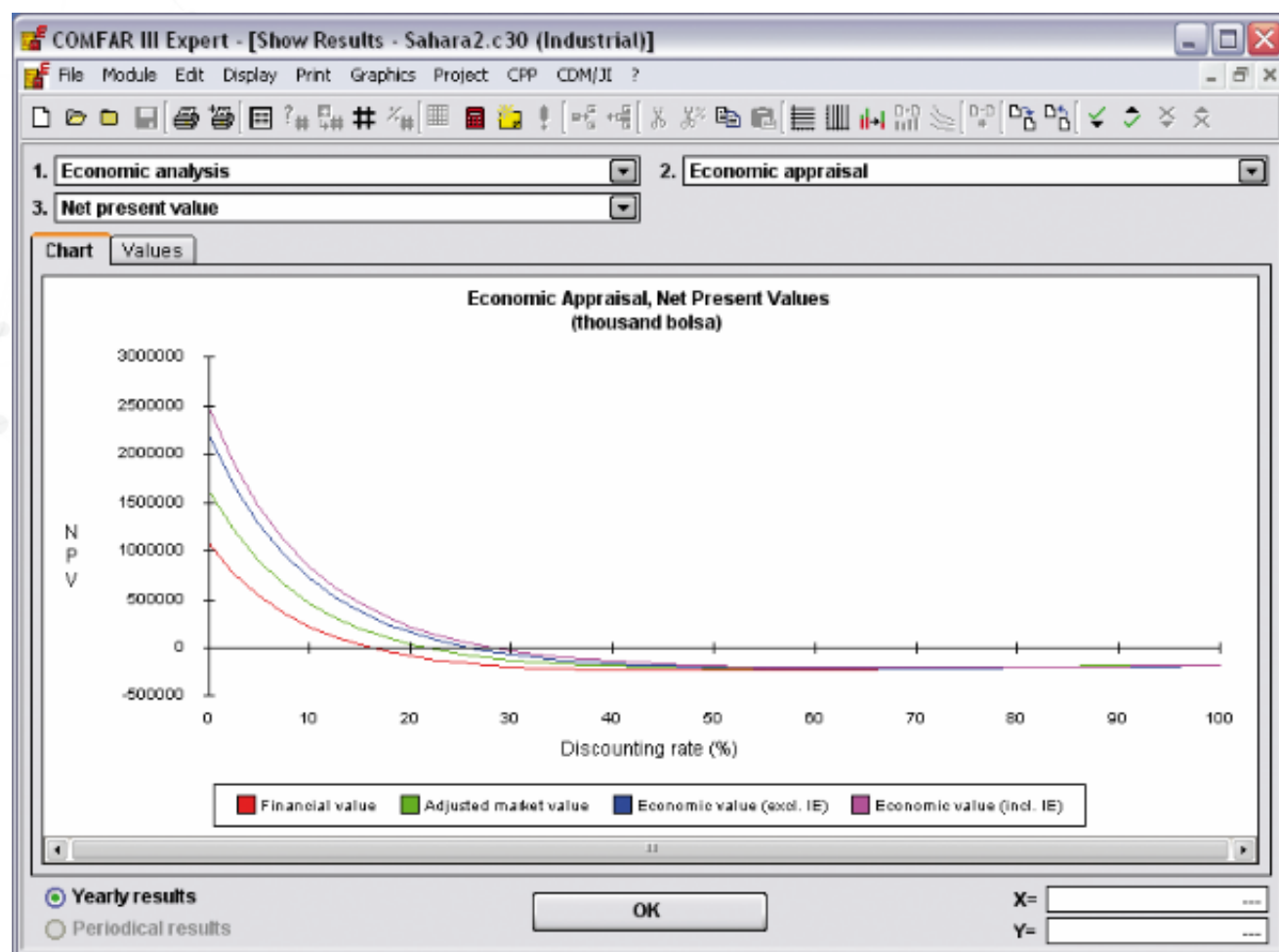


ECONOMIC ANALYSIS (MACRO LEVEL)

The economic analysis option allows the user to introduce shadow prices (to express project inputs and outputs in terms of economic prices) and to compute economic rates of return, value-added, foreign exchange effects and so on, including or excluding external economic effects.

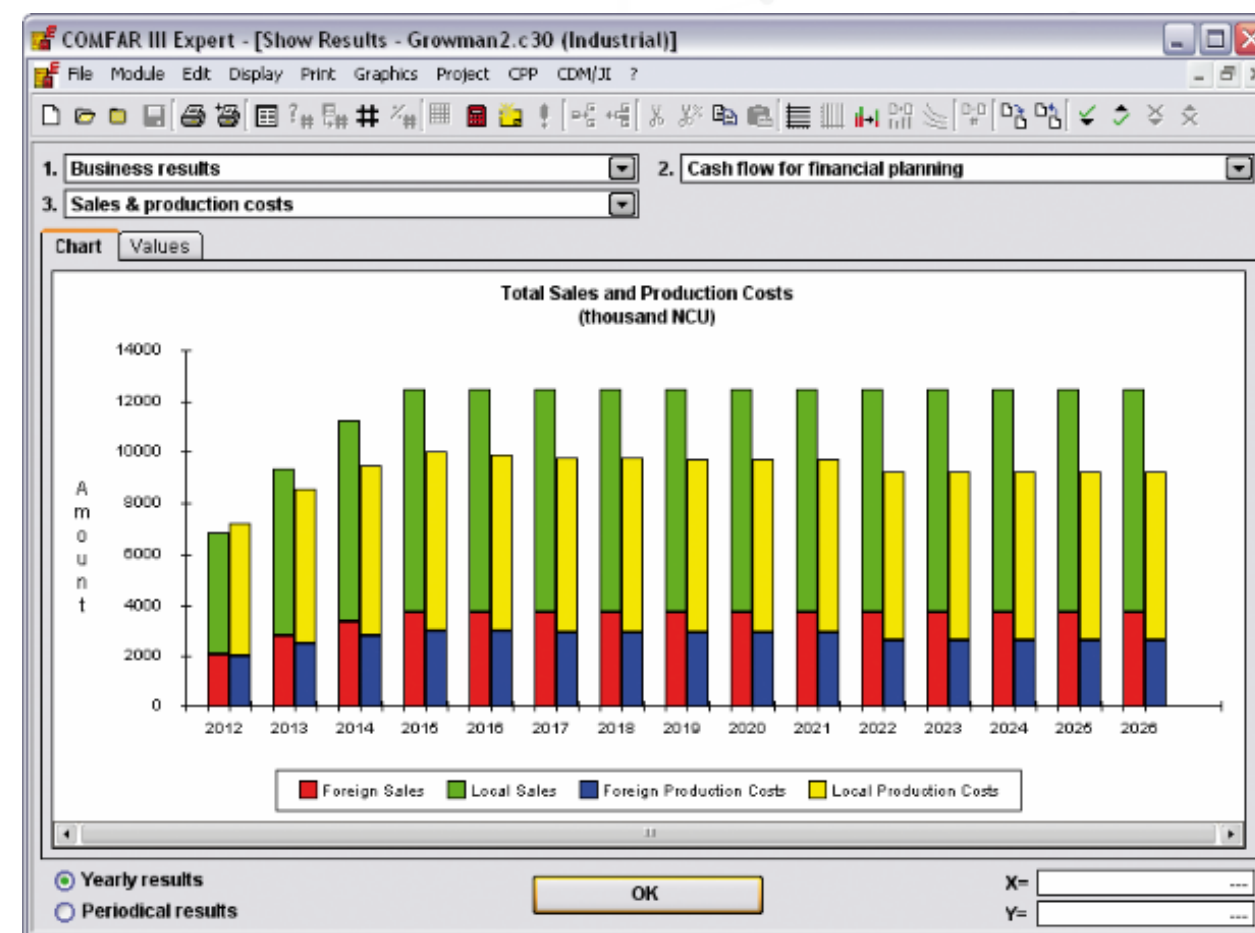
The economic analysis module of COMFAR III Expert supports methodologies described in the *Guide to Practical Project Appraisal* (UNIDO, 1986), in ("Little, I.M.D. and Mirlees, J.A."), *Project*

Appraisal and Planning for Developing Countries (OECD, 1982) and in ("Squire, L., and van der Tak", H.G.), *Economic Analysis of Projects* (World Bank, 1984). The value-added methodology follows that of the *Manual for Evaluation of Industrial Projects* (UNIDO, 1984) but is modified to include decomposition of intermediate inputs suggested in the *Manual of Economic Evaluation of Projects* by (M. Chervel and Michel Le Gall) (Paris, 1989).



GRAPHICAL REPRESENTATION OF RESULTS

COMFAR III Expert gives the user the ability to generate graphical presentations of ratios as well as structures of cash flows, costs and revenues.

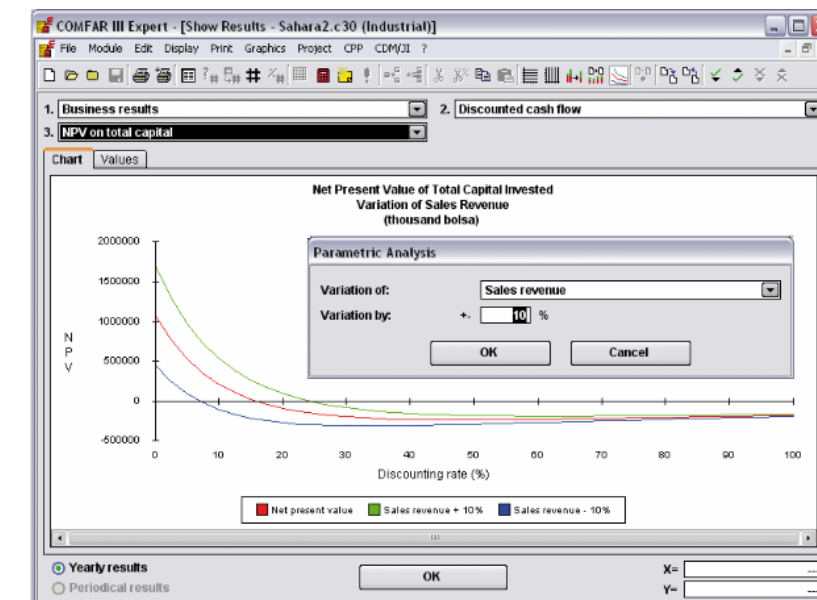




SENSITIVITY ANALYSIS

With the help of sensitivity analysis, it is possible to show how net cash returns or the profitability of an investment alter with different values assigned to the variables needed for the calculation (sales prices, unit costs, sales volumes, etc.). COMFAR III Expert facilitates assessment of alternative project scenarios and determination of critical variables.

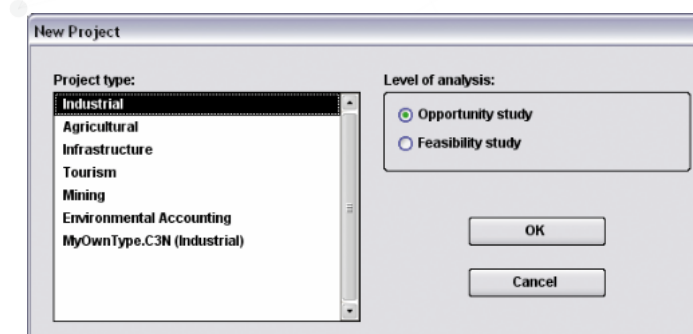
A variety of graphic charts is available to analyse the structures of project inputs and outputs, e.g, the structure of annual production and sales programme, or variable and operational margins and break-even sales volumes. Furthermore, COMFAR III Expert offers Incremental Analysis in order to facilitate the calculation of the impact of project expansions or rehabilitations.



NON-INDUSTRIAL INVESTMENT PROJECTS

For an appraisal of investment projects in other sectors of the economy, such as agro-industrial development, mining, infrastructure, tourism and environmental accounting projects, COMFAR III Expert offers corresponding data input formats and output tables.

COMFAR III Expert allows the users to create tailor-made project types based on the above mentioned standard types.



MULTILINGUAL SOFTWARE

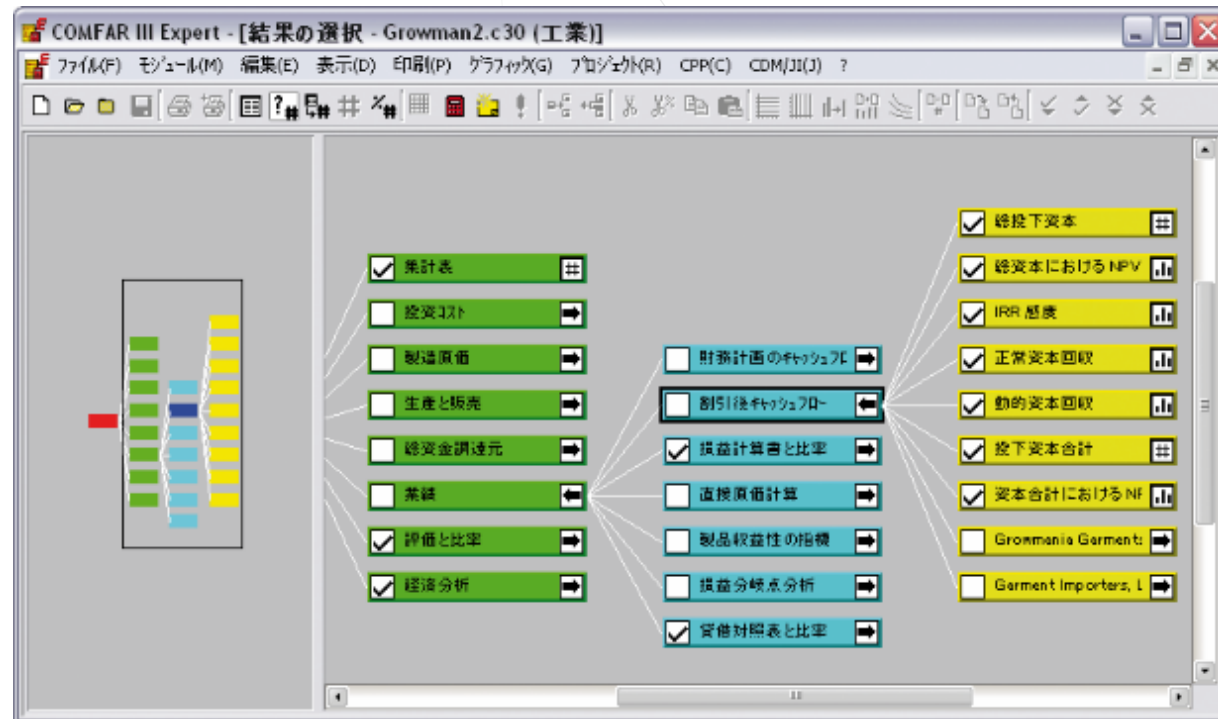
The financial analyst might choose to work in his/her language but might need to present the results, print-outs, charts of the analysis in a different language, which is often the case in international negotiations. Time and money have to be spent on translations. UNIDO has solved this problem by offering COMFAR III software in different languages and providing full compatibility among the different language versions of the software.

All COMFAR III programs are delivered in the language selected by the user.

It is possible to acquire and install, at any time, one or more additional languages sets. This will permit the analyst to operate COMFAR III in one language (e.g. English) and print all tables and charts in a different language (e.g. French).

COMFAR III is currently available in the following (19) languages:

Arabic, Chinese, Croatian, Czech, English, Farsi, French, German, Indonesian, Italian, Japanese, Korean, Mongolian, Polish, Portuguese, Russian, Serbian, Slovak and Spanish.



COMFAR III EXPERT DEMO VERSION

COMFAR III Demonstration versions can be downloaded free of charge from COMFAR's homepage at:

<http://www.unido.org/comfar>

HARDWARE AND SOFTWARE REQUIREMENTS

COMFAR III can be installed and run on a computer system equipped with the following hardware and software:

Microsoft Windows 7/8/10/11

- » Hard disk space (22.1 MB)
- » USB port (for protection key)

COMFAR III IS A PROTECTED SOFTWARE

COMFAR is protected against piracy, illegal use and authorized access, while use of the system is guarded by a hardware protection key.

This hardware protection key can be plugged into any USB port of the computer equipment to start COMFAR.

One key is included within the COMFAR package.

- » A standard protection key permits the licensee unlimited use of COMFAR on one PC.
- » A limited duration protection Key allows the software to operate for a limited period of time (e.g. during a training course) on one PC.





UNIDO-COMFAR TRAINING WORKSHOPS

COMFAR training workshops are organized by UNIDO at:



UNIDO Headquarters, Vienna, Austria



The premises of the customer (Upon request)



Remote Online Training (Upon request)

AT UNIDO HEADQUARTERS

Twice a year, UNIDO offers training workshops on Financial Analysis of Investment Project Scenarios with the application of COMFAR III at beginners and advanced levels. These workshops are held in spring (April/May) and in autumn (September/October) in Vienna, Austria. Each workshop has a duration of one week (Monday to Friday) and is conducted in English.

REMOTE ONLINE TRAINING (UPON REQUEST)

Taking into consideration the growing demand for conducting capacity-building activities on project preparation and appraisal, UNIDO is offering Remote Online Trainings at Beginners and Advanced levels for groups of a minimum of 5 participants and a maximum of 10 participants. The duration of the remote online training is 5 days and it is conducted by one trainer.

If you would like to train a group of staff from your company/organization, we could conduct an online course exclusively for you. In this case, the costs would be significantly reduced and the course could be conducted in your preferred language out of available COMFAR language versions.

For any training related enquiries or more information, please contact comfar@unido.org.

AT THE PREMISES OF THE CUSTOMER (UPON REQUEST)

Training workshops on COMFAR III can be arranged, upon request, at the premises of the customer. This allows larger institutions to train more staff in the use of COMFAR III software. The contents of each workshop can be adjusted to meet the needs of the participants. The objectives of the COMFAR III Expert workshops are:

- » To understand various (basic and advanced) features offered by COMFAR III Expert for Windows
- » To analyze selected cases and practice design of individual data input structures
- » To learn how to use special features (such as consideration of inflation, cost centers, cost allocation, etc.)
- » To learn how to use various analysis tools (sensitivity, breakeven, modified IRR, short NPV, etc.)
- » To discuss with colleagues and UNIDO COMFAR III experts the practical application of the software
- » To exchange experiences and improve the knowledge of financial and economic project analysis and appraisal.



HOW TO ORDER



FILLING IN THE ORDER FORM-CUM-LICENSE AGREEMENT

Order form-cum-License Agreement is available for download at www.unido.org/comfar

By signing the order, you are accepting the terms and conditions of the agreement.

Carefully read all of the terms of the Software license agreement on the back of the order form.

The original signed order form should be sent to comfar@unido.org

PRACTICAL GUIDELINES FOR THE FILLING IN THE ORDER

Choose the language version you would like to order

Should you need additional run-time licenses or additional languages, please mark the corresponding box

Do not forget to fill in the complete name and address of the ordering company/institution (end user) and sign



PAYMENT

On receipt of the signed order form, the invoice will be issued and sent by e-mail to the customer.

Payment can be made either by bank transfer or credit card (EUROCARD/MASTERCARD or Visa Card). For details, please refer to the order form.



DELIVERY

The link to download the software will be shared via email.

Dispatch of the license key is done by a special courier, at UNIDO's expense, upon receipt of payment.

TECHNICAL SUPPORT AND DELIVERY

COMFAR III Help Desk can be contacted from Monday to Friday, 9:00 a.m. to 5:00 p.m. CET.

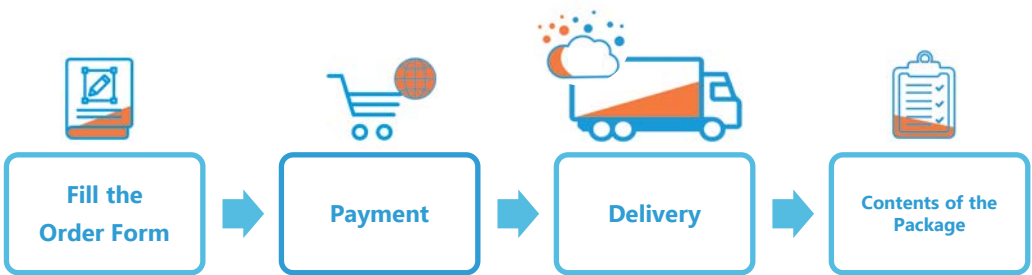
Tel: +43 1 26026 4066
E-mail: comfar@unido.org

COMFAR III packages can be easily ordered by e-mail and will be dispatched by express service at UNIDO's expense upon receipt of order and payment.



CONTENTS OF A COMFAR III STANDARD PACKAGE

- » Link to download COMFAR III Expert software in the chosen language with installation instructions
- » One protection key to run the software
- » One set of COMFAR III manuals (Reference and Tutorial)
- » The UNIDO manual (Feasibility Studies Series Volume 1)





COMFAR III EXPERT LICENSE FEES (IN EURO)¹

STAND-ALONE VERSION

Country Groups			
User Type	Group A	Group B	Group C
Commercial	€ 2,760.-	€ 1,840.-	€ 920.-
Public sector, Universities	€ 1,840.-	€ 920.-	€ 460.-
Additional runtime set	€ 175.-	€ 175.-	€ 175.-
Additional language set ²	€ 575.-	€ 460.-	€ 285.-
Additional COMFAR Manual	€ 50.-	€ 50.-	€ 50.-

Country Group A: Europe (except for Eastern Europe/CIS), Australia, Canada, Japan, New Zealand, USA

Country Group B: Developing countries including CIS (except for countries in Group C)

Country Group C: Countries contained in UNIDO's list of LDCs

¹License fees valid as of November 2019. All prices are subject to change.

²An additional language set has to be purchased only once per licensee, regardless the number of Run-time licenses acquired.

COMFAR - IMPACT

“We are happy that our people participated in your recent COMFAR III Expert Workshop. They found the training to be enlightening and worth the money spent.”

*MIDROC – Private Limited Company,
Addis Ababa, Ethiopia*

“I think this package based on UNIDO’s well-known industrial feasibility studies methodology has a clear and understandable structure”

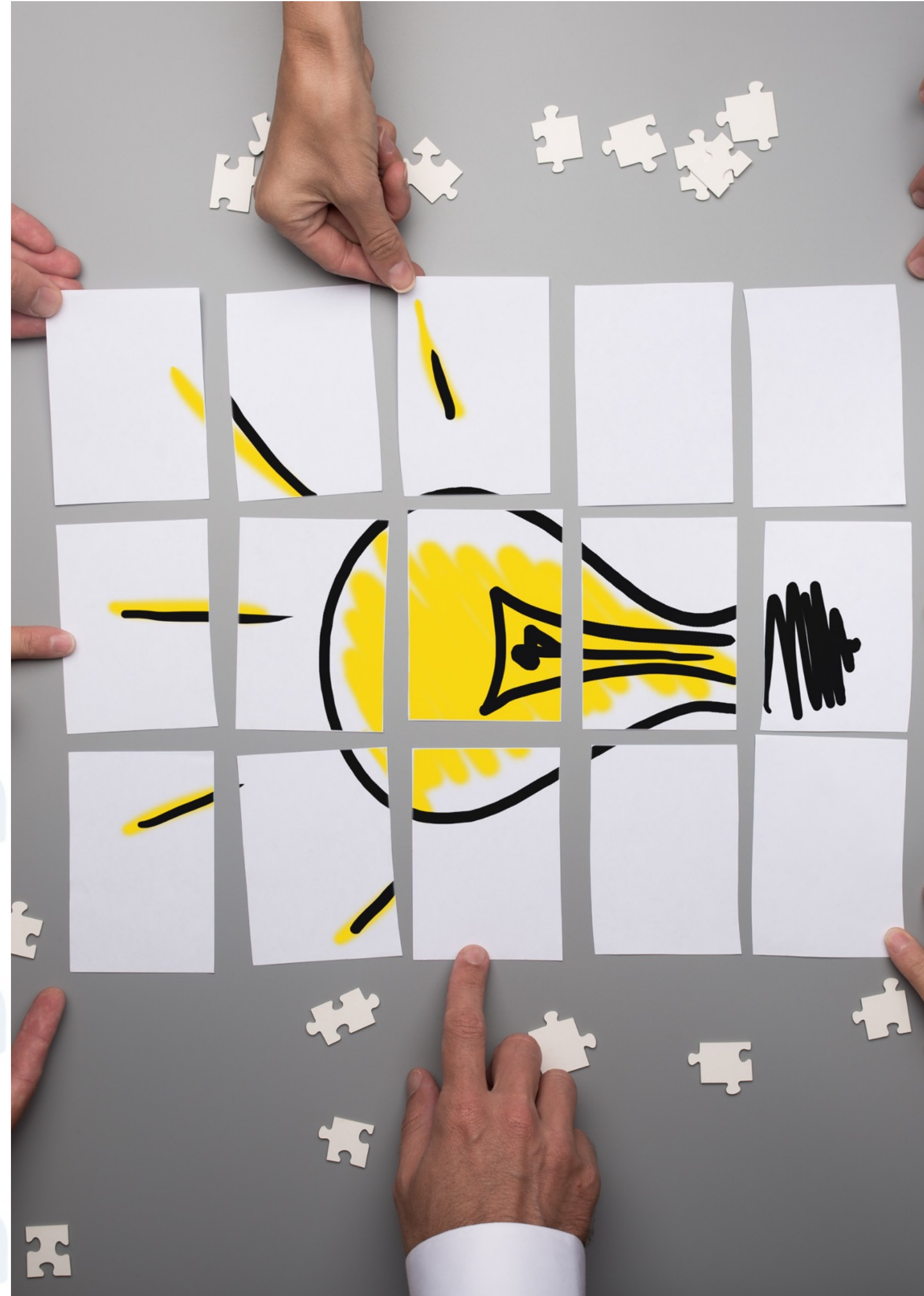
*Dr. Yury Shishorin, Institute of Central
Sciences of the Russian Academy of
Sciences, Russian Federation*

“I find COMFAR III an ideal tool for project analysis in developing countries, it is clear and practical to be adopted for both theoretical and empirical applications.”

Mr. Cesare Zanosi, Italy

“Thank you for the fast and efficient work. It has been a pleasure to work with the COMFAR team and UNIDO”

*Ms. Valeria Roman, ICMA
Washington D.C., United States of
America*





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