

# Hild Rygnestad

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## Profile

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During my postgraduate career my main work has been in the area of financial and economic modelling, statistical analysis, and database design. I have improved on existing and designed new complex financial models for mining, energy, agricultural development, and emerging industry projects. The goal is always to support management decisions. My work has also included risk analyses using Monte Carlo simulation modelling. I have conducted portfolio reviews of development projects and programs identifying elements of good practice and overall trends.

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## Expertise

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### **Financial, Economic and Statistical Analysis**

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Designed complex financial models for mining, energy, and development projects to support management decisions and negotiations with financial institutions and investors. Models include detailed calculations for production revenue, operating cost, book and tax depreciation, and working capital as required. The models include life-of-project income statements, balance sheets and cash flow statements along with financial indicators such as Net Present Value, Internal Rate of Return and Payback Period. Models also include extensive sensitivity analyses and in some cases risk analysis.

Performed risk analyses for mines under private sector development: The emphasis was on estimating the necessary level of contingency for total capital costs with the use of Monte Carlo simulation modelling. Incorporated Monte Carlo simulation in a discounted cash flow model for an internationally-funded development project that is targeting agricultural productivity.

Made user-friendly analytical tools for: decomposing growth rates by factor inputs; calculating rate of return to capital; decomposing output growth by main components of aggregate demand; decomposing output and employment growth by sectors; decomposing contributions of productivity growth, employment growth, and labor force growth. The materials include tools in Excel format, documentation, step-by-step guides, examples, and video-tutorials.

Developed corporate financial models for medical marijuana companies tracking key financial and sector indicators through income statements, cash flow statements, and balance sheets. In support of management decisions and for investor presentations, analyses included detailed modelling of production revenue, operating cost, capital costs, financing, taxation, book and tax depreciation, equity interests, acquisitions, biological assets and inventory valuation.

### **Portfolio Reviews**

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Conducted portfolio reviews for a major international organization of projects and programs to identify elements of good practice and overall trends. Reviewed topics include: sustainable agriculture systems, knowledge & institutions, agricultural producer organizations, agribusiness, biotechnology & biosafety, agricultural education, agricultural innovation systems, land administration, and gender issues. The reviews included searching internal project databases, reviewing strategy papers, project documents. Interviews were also conducted with key project staff.

### **Project Controls**

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Developed and implemented project controls procedures that incorporate tracking budgets, actual spending, invoice auditing, contract management, commitments, and trends. Designed management reporting formats and trained and supported staff to implement the procedures.

### **Database Design**

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Designed customised reporting features; documented database structures; and provided support and training material for users. Examples include: an application for a private company to manage foreign exchange hedging; an application for an academic department to manage contracts, agreements and patents in the area of intellectual property and technology transfer; an application to assist a start-up biotechnology company in managing their clients and identified technologies; an application for a research centre to manage their national collection of Rhizobium strains.

**Teaching/Training**

Developed case studies and demonstrated risk analysis software for use in agriculture and rural development projects. This includes using Adobe Captivate to create online modules focusing on risk analysis. Developed and delivered several lectures to undergraduate and graduate university students in the area of agricultural policy, resource economics and valuation. Supplemented lectures with visual aids and practical classes to develop the student's analytical, modelling and presentation skills. Set and marked exam questions and managed an on-line training course.

**Key Skills**

- Highly motivated, self-starter.
- Analytical, detailed oriented and methodical.
- Excellent interpersonal skills including extensive experience in long-distance team communication using WebEx, Skype, and similar tools.
- Advanced user of Microsoft Office including: Excel, Word, Access, and PowerPoint.
- Advanced user of: Adobe Captivate, Visual Basic, HTML, PHP, and MySQL code.
- Fluent in spoken and written English and Norwegian (native).

**Experience****Rygnestad Canada, Ottawa, Canada****Managing Director**

Jan 2006 - present

Providing financial and economic analyses for improved decision-making. ([www.rygnestad.net](http://www.rygnestad.net)).

**Plasco Energy Group, Ottawa, Canada****Business Analyst**

Jul 2009 – Nov 2009

Designed and maintained financial models for corporate and business development analyses.

**the Rygnestad Group LLC, Colorado/Florida, USA****Consultant, Economist**

Mar 2002 – Jun 2009

Provided business solutions in financial and economic analyses. Provided project management support and audits. Designed analytical and management tools for clients. ([www.rygnestad.net](http://www.rygnestad.net))

**Strategic World Initiative for Technology Transfer (*swift*), Cornell University, Ithaca, New York****Program Associate**

Jun 2001 – Dec 2001

Developed, designed and maintained web based course in intellectual property with a team of internal and external contributors. Developed customizable tool for contract management aimed at businesses and research centers worldwide.

**Department of Food and Resource Economics (IFRO), Copenhagen, Denmark**

(previously Danish Institute of Agricultural and Fisheries Economics, SJFI)

**Researcher**

Sep 1998 – Mar 2001

Conducted research in the area of agricultural economics, and more specifically analyses regarding environmental economics and policy. Several projects included multidisciplinary work with other institutes.

**Education**

University of Western Australia, Perth, Australia

**Doctor of Philosophy (agricultural economics)**

1999

**Postgraduate Diploma in Science in Agriculture**

1995

Norwegian University of Life Sciences (was Agricultural University of Norway), Ås, Norway

**Candidatus Magistrerii (BSc equivalent) in Economics**

1993

*Note: References provided on request.*

*List of Publications provided on request - and available at [www.rygnestad.net](http://www.rygnestad.net)*

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## Description of Specific Assignments

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### Economic and Financial Analyses

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As part of the development project team, I designed an Excel-based model for analysing the expected economic and financial returns to an agricultural and rural development project in Africa. The project had a budget of USD 85 million and focused on increasing agricultural productivity on project area marshlands and hillsides through irrigation, terracing, and commodity chain development. To obtain the necessary information, I worked closely with planning and implementation staff who had access to relevant analysis data for the project area. I reported to the project team leader. I built a discounted cash flow model to quantify increased value of production and infrastructure investments as well as proxies for capacity building and environmental benefits. The model was built to analyze the project from planning through implementation of different phases to completion. The analysis included using Monte Carlo simulation to quantify the risk associated with model assumptions.

I built an Excel-based model to conduct an economic and financial analysis to support the restructuring of a USD 200 million irrigation development project in Africa. The project investment supports increased productivity in vegetable and grain farming using different irrigation-technologies and -management designs coupled with improved extension services. The discounted cash flow model is designed to analyze multiple scenarios to aid the project team's decision making.

I built an Excel-based model to analyze the economic and financial returns from a USD 54 million development project in Africa. The project supported production and land management initiatives as well as capacity building for producer organizations. I reported to the project team leader and I worked with staff in the local project implementation team to obtain the necessary data to design a discounted cash flow model. Because the project initiatives were community-driven, the ex-ante analysis was based on ten representative sub-project models including livestock, irrigated/non-irrigated crops and vegetables, and agri-business initiatives.

I built an Excel-based model to analyze the economic and financial returns from a USD 9 million emergency food crisis response project in Africa. The project aimed to support adoption of improved agricultural technologies for food production and provide conditional as well as unconditional cash or food to eligible beneficiaries. Due to the nature of an emergency support project, there was no time to estimate the overall project efficiency, but the focus was instead on estimating efficiency or effectiveness of key benefit flows. This included increases in farm gross margins and value of cash and food transfers relative to the country's poverty and food-poverty lines.

As part of a USD 1.2 billion national agricultural development program in Africa, I designed an Excel-based model to analyze the impact of sub-program investments on revenues and costs in 7 different enterprise models including cropping, livestock, and post-harvest enterprises. The quantitative analysis included net present value and rate of return calculations as well as elasticities and identifying risk factors using unit cost comparisons and switching values.

*Note: Examples include only assignments related to development projects and exclude my private sector work.*

### Portfolio Reviews

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I have conducted numerous portfolio reviews for a major international organization. In these desk studies I analyzed reports on projects and programs to identify elements of good practice and overall trends. The reviews included searching internal project databases, reviewing strategy papers, project appraisal documents, implementation completion reports and other project documents. Interviews were also conducted with key project staff.

Reviewed topics include:

- Agricultural producer organizations
  - Sustainable agricultural systems, knowledge and institutions
  - Agricultural innovation systems
  - Agribusiness
  - Agricultural education and training
  - Biotechnology and biosafety
  - Gender and rural development
  - Land administration and gender issues
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