Università
Ca'Foscari
Venezia

PROJECT ACRONYM AND TITLE: **MEND – Modeling Energy for Sustainable Development in Ethiopia.**

FUNDING PROGRAMME: **H2020 Excellence Science – Marie Skłodowska-Curie Individual Fellowships**

CALL: **H2020-MSCA-IF-2019**

SCIENTIFIC FIELDS: **ECO – Economic Sciences (ECO)**

HOST DEPARTMENT: **DAIS - Department of Environmental Sciences, Informatics and Statistics**

SCIENTIFIC RESPONSIBLE: **Prof. Carlo CARRARO**

FELLOW: **Amsalu Woldie Yalew**

FINANCIAL DATA:

Project total costs	Overall funding assigned to UNIVE
€ 183473,28	€ 183473,28

ABSTRACT:
Energy is key for economic development. Especially in the era of sustainable development, the source, the type, and the mix of energy are as important as access to energy. This is particularly important in least developed countries (LDCs) such as Ethiopia which heavily relies on traditional biomass energy sources. Barely a quarter of total households in Ethiopia use electricity as a source of light in their houses while 96% of the households depend on biomass for cooking fuel. This in turn contributes to indoor air pollution which causes more than 50,000 deaths annually and nearly 5% of the burden of disease in the country. Besides, the sources of electricity are least diversified. About 95% of electricity comes from hydro-power with thermal, geothermal, and wind sources contributing the rest. Yet, the country regards hydro-power electricity as one of its potential export item. For instance, in the year 2017/2018, electricity contributed to 3% of the total merchandise export earnings. On the other hand, however, petroleum products make up to 10-14% of the country's spending on imports. As such, in Ethiopia, investment in energy transition has many implications for the economy (e.g. on total factor productivity, structural change, trade balance), the environment (e.g. deforestation and soil fertility), and human health (e.g. indoor air pollution). In light of this, the use of scientific studies on the energy-economy-environment inter-linkages will be paramount. However, the research in this subject is yet nascent in Ethiopia. The existing literature overwhelmingly focuses on the supply side of a specific energy source barely touching the interaction among energy sources, the interaction of energy with environment and economy, and the demand side. This project primarily intends to fill these appealing gaps, and examine the environment-energy-economy inter-linkages in Ethiopia using partial equilibrium energy model and an economy-wide general equilibrium model.

Planned Start date	Planned End date

15th November 2020	14th November 2022

PARTNERSHIP:

1.	**Università Ca' Foscari Venezia**	**Italy**	**Coordinator**