



FIELD STUDY ABROAD NEPAL

Travel, Learn, Research and Work in
Developing Communities



Co-organising partners



With the participation of **Private Partners** and students from **Sapienza, PoliTo, Uni Pisa**

Who are they?

1



**Technical
Solidarity**

Tecnologie Solidali, a non-profit organization, focuses on enhancing the logistical and organizational aspects of Field Study Abroad. The organization aims to conduct further research to generate impactful outcomes that can improve people's lives. Many researchers possess innovative ideas but lack the resources to develop them, often due to insufficient funding. Tecnologie Solidali, which translates to Responsible Technologies, is dedicated to supporting research initiatives in areas such as technologies that mitigate the effects of war, sustainable development in vulnerable societies, environmental conservation, empowerment of individuals with disabilities, and other socially significant fields. Through promoting scientific advancement and technological innovation, the organization strives to create invaluable benefits for individuals and communities.

Who are they?

2



The Grand Challenges Scholar Program is a collaboration between Sapienza University of Rome and the State University of New York (SUNY), is a key component of the innovative training activities promoted by the Interuniversity Research Center for Sustainable Development and Tecnologie Solidali (Technical Solidarity) non-profit organization. The FSA program is closely aligned with the Grand Challenges Scholars Program (GCSP) - a collaborative initiative involving 70 U.S. universities under the auspices of the U.S. National Academy of Engineering. The GCSP focuses on interdisciplinary collaborations with national and international institutions, with the aim of disseminating technical and scientific solutions that can foster social, economic, and technological development. This development should be achieved in a sustainable manner, without compromising the environment or disadvantaging any social group, geographical area, or future generation. Through the FSA program, students are placed within international project management initiatives in the fields of renewable energy and sustainable development. The program covers a wide range of activities, including field experiences, research, and the development of technical and scientific solutions to address pressing global challenges. By integrating the GCSP framework, the FSA program aims to cultivate a new generation of interdisciplinary scholars and professionals who are equipped to tackle complex, real-world problems and drive positive change in their communities and beyond.

Who are they?

3



UNIVERSITÀ DI PISA



Italian universities

Students from Sapienza, University of Rome, as well as others, especially within Engineering Faculty, and Economy Faculty are involved in research, training, services, work methods and direct interventions on national and international communities under the Grand Challenges Scholars Program.

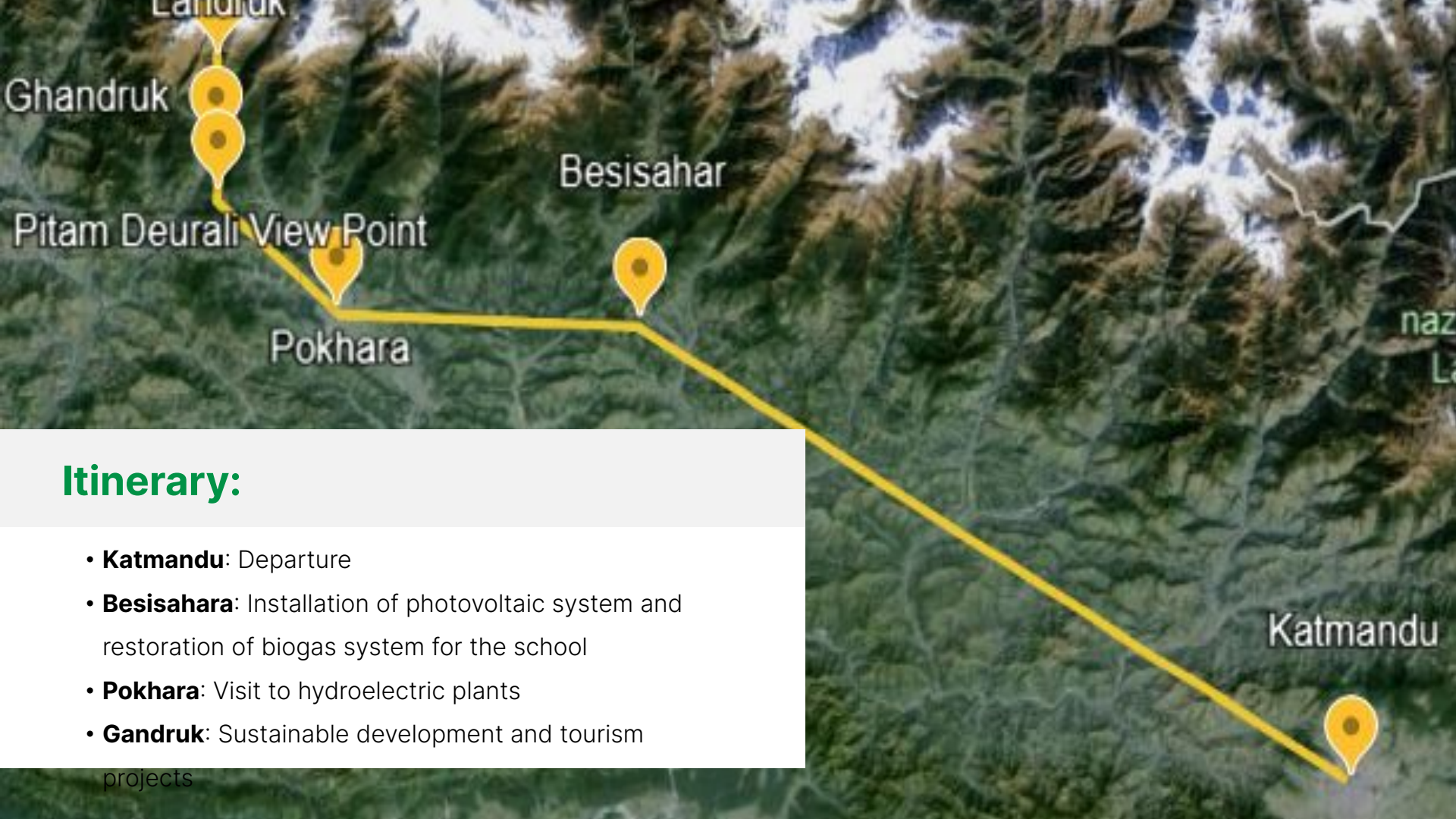
Where?...

Nepal

Nepal is one of the most interesting countries in terms of Himalayan Villages and Periurban communities electrification.

Technical Solidarity with the "Field Study Abroad #20" will support the development of **off-grid communities** and **ensure essential energy services**. This will provide **energy**, enable refrigeration for food preservation and **water treatment for Productive Uses of Energy and the local development**.





Itinerary:

- **Katmandu:** Departure
- **Besisahara:** Installation of photovoltaic system and restoration of biogas system for the school
- **Pokhara:** Visit to hydroelectric plants
- **Gandruk:** Sustainable development and tourism projects

Our Projects

1



Topics

- **Renewable energies:** productive use of energy, energy communities, community-based photovoltaic systems, hydro-power generation, waste-to-energy systems, smart grids, urban and rural electrification. Agronomy and food processing technologies are discussed within the international cooperation for development on the purpose of finding appropriate solutions to identified problems; students can develop their thesis or project work directly on the field;
- **Project management tools:** Logical Framework Analysis, stakeholder analysis, environmental impact assessment, project monitoring and evaluation.
- **Financial evaluation:** funding opportunities, public-private partnerships, business planning, fundraising and management.

Technical Skills... for the “Grand Challenges”



Actions

- **Photovoltaic** Systems Installation
- **Biogas Plant** Installation and Maintenance
- **Community Energy** Assessments
- Assessments of **Mini Grid Status**
- Assessments of **Willingness to Pay and Ability to Pay** for Household and Micro-enterprise Users

Enterprises to Meet on Field

3



Actors Involved

- Meetings with Hydroelectric Plant **Manufacturing Companies**
- Meetings with Hydroelectric Plant **Operators**
- Meetings with **Microenterprises in the WEF** (Water Energy Food) Sector
- Meetings with **Community Leaders and School Administrators**

Managerial Skills and Goals

4



Financial Aspect

- Financial Assessment for **Biogas Plant Implementation**
- Financial Assessment for **Community Energy Assessments**
- Financial Planning for **Mini-Grid Maintenance**
- Financial Evaluation of **Household and Microenterprise** Users' Willingness to Pay and Ability to Pay

Communication...

4

Other Companies interested in low-carbon technologies, rural electrification projects development and implementation, are supporting the FSA. They help the FSA and participants to be more and more effective also in books and web publications like:

- **Technical scientific book** of the works on Village Projects
- **Personalized Photographic Book** with names and partner company's logos
- **Backpacks and folders** of Universities and Partner Companies
- **Daily blog** on www.Rinnovabili.it
- **Weekly report** on www.TecnologieSolidali.org
- **Academic-related news** on Sapienza on www.ing.uniroma1.it

THANK YOU
FOR YOUR
ATTENTION

www.technicalsolidarity.org

