CONCEPT NOTE

Project Title:

Climate-Resilient Water Access, Solarization and Green Livelihoods Initiative in Trans Nzoia County, Kenya

Submitted to:

United Nations Development Programme – Small Grants Programme (SGP)

Submitted by:

- **TRANSWASCO** – Trans Nzoia Water and Sanitation Company Ltd
- **TCP** – Transform Community Project (CBO)

1. Background and Problem Statement

Trans Nzoia County faces growing **climate variability**, resulting in unreliable rainfall, water shortages, and pressure on existing water systems. Public institutions such as **schools, health centres, and churches** are particularly affected, often lacking consistent water supply.

Additionally:

- High dependence on manual or diesel-based water systems
- Limited rainwater harvesting and storage
- Increased operational costs for institutions
- Vulnerability during drought periods

There is a strong opportunity to integrate **solar-powered water systems and storage solutions** to ensure sustainable and affordable access.

2. Project Goal

To enhance **climate-resilient, solar-powered water access and sustainable livelihoods** for communities and institutions in Trans Nzoia County.

3. Specific Objectives

1. Improve reliable water access through **solar-powered systems and storage**
2. Promote **rainwater harvesting using 5,000L tanks**
3. Reduce operational costs through **renewable energy (solarization)**
4. Strengthen community capacity in **climate adaptation and water governance**
5. Support **green livelihoods and environmental conservation**

4. Key Project Components & Activities

A. Community Water Infrastructure Improvement

- Rehabilitation of water points and pipelines
- Installation of solar-powered boreholes
- Institutional rainwater harvesting systems

B. Distribution of 5,000L Water Tanks

- Procure and distribute **100–200 units of 5,000L tanks** to:
  - Vulnerable households
  - Schools
  - Churches and community centres
- Install guttering systems for rainwater harvesting
- Train users on maintenance and hygiene

C. Solarization of Community Water Systems

- Install **solar-powered pumping systems** for:
  - Schools
  - Health centres
  - Churches
- Solarize existing community water tanks by:
  - Installing solar panels
  - Solar pumps and controllers
  - Elevated tank systems for gravity distribution
- Replace costly diesel/manual pumping with clean energy

✅ **Impact:**

- Reliable and continuous water supply
- Reduced operational costs for institutions
- Clean energy adoption (climate mitigation + adaptation)
- Improved service delivery in schools and health facilities

D. Climate-Smart Water Management

- Formation of **Water User Committees**
- Training on water conservation and governance
- Community-led monitoring of water systems

E. Ecosystem Restoration

- Tree planting in catchment areas
- Protection of springs and riparian zones

F. Green Livelihoods Development

- Support youth and women groups in:
    - Irrigation farming
    - Tree nurseries
    - Water kiosks and small enterprises

5. Expected Results

- 3,000+ households benefit from improved water access
- **100–200 water tanks distributed**
- **10–20 institutions solarized** *(schools, health centres, churches)*
- Reduced energy costs for water systems
- Increased water availability year-round
- Improved health, sanitation, and livelihoods
- Strengthened climate resilience

6. Target Beneficiaries

- Rural households
- Women and youth groups
- Schools and health centres
- Faith-based institutions

7. Implementation Strategy

- **TRANSWASCO**:
  Technical design, installation, solar system integration, supervision
- **TCP (CBO)**:
  Community mobilization, beneficiary selection, training, monitoring

✔ Approach:

- Participatory planning
- Equity-focused targeting
- Community ownership

8. Sustainability Strategy

- Training of local technicians on **solar system maintenance**
- Establishment of community management structures
- Reduced costs due to solar energy (no fuel dependency)
- Integration with existing TRANSWASCO systems

9. Estimated Budget

USD 50,000 – 150,000 (SGP Range)

Indicative Allocation

- Solarization systems: **30–40%**
- Water tanks & rainwater systems: 25–30%
- Infrastructure rehab: 15–20%
- Livelihoods: 10%
- Training & environment: 10–15%

💡 This balance makes the project:

- Climate-focused
- Practical
- Highly fundable

10. Alignment with SGP Priorities

✔ Climate change adaptation
✔ Renewable energy (solar)
✔ Sustainable water management
✔ Community-driven development
✔ Livelihood improvement

11. Why This Proposal is Very Strong

- Combines **water + solar energy + livelihoods** (high impact)
- Targets both **households AND institutions**
- Strong **utility + CBO partnership**
- Immediate and long-term benefits
- Fully aligned with SGP funding priorities

12. Contact Information

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