



# Solar-Power fountain Water Pump

Present by "We Khaen Change"









## We Khaen Change's Members





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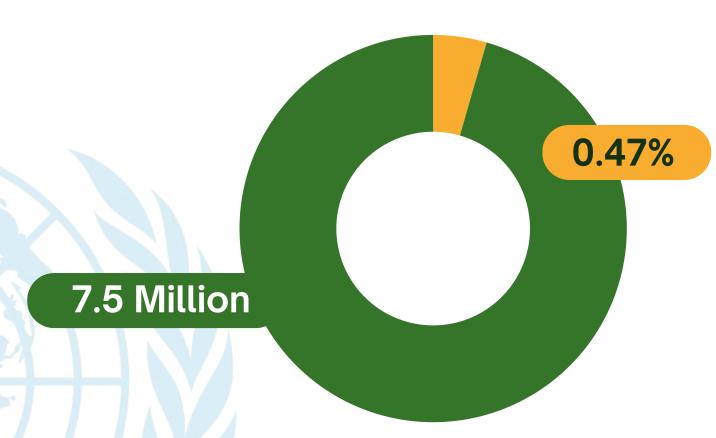
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### Introduction

- Dengue fever statistics in Lao PDR 35.000 cases in 2023, WHO
- So far 2024 over 10 million cases have been reported from 176 countries around the world, more than 1 million cases every month. (WHO)









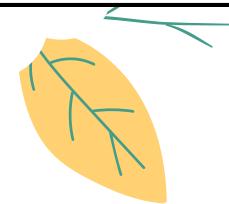
# Research / Inspiration

We've researched global projects, focusing on Thailand's "Chaipattana Turbine" for water purification. These insights will help us apply effective and culturally appropriate elements to our project in Laos.









# Problem

"Can We Change?"

- Dengue Fever
- Water Quality Issues
- Lack of Oxygen for fish
- Environment Degradation







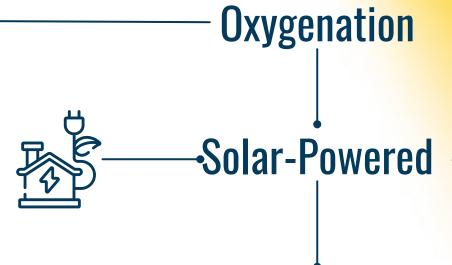


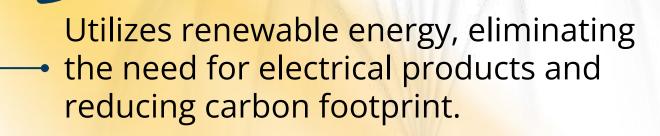


# Solution - We Khaen Change

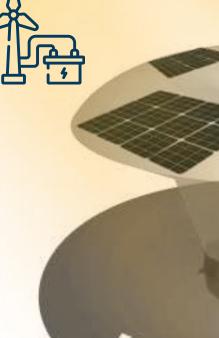
The pump aerates the water, increasing Oxygen levels for fish

Improves Water Quality by preventing stagnation, thus reducing mosquito breeding grounds and mitigating the risk of dengue fever



















# Challenges:

- Water Quality Issues
- Lack of Oxygen for fish
- Dengue Fever
- Environment Degradation

### Solution:

**Solar-Power Fountain Water Pump** 



- Water treatment
- Prevention of Dengue Fever
- Increase Oxygen for fish







#### **What Makes Us Different?**



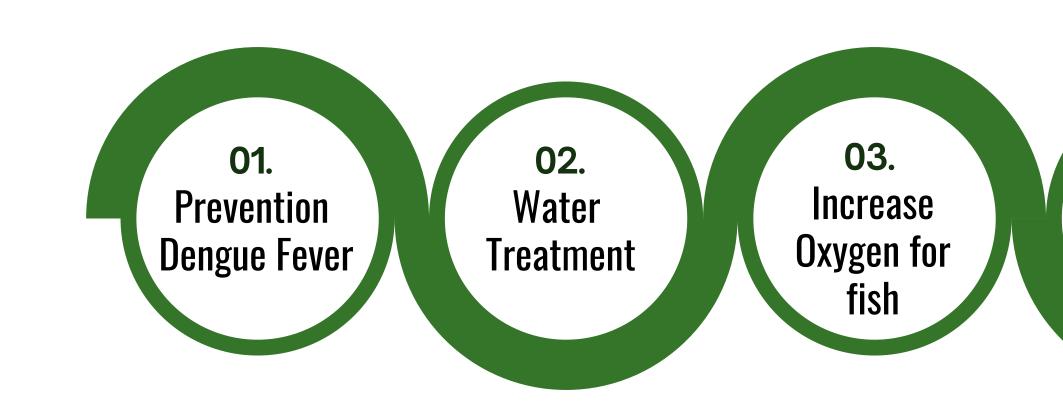
#### This Innovation can solve 2 main issues in Laos with 3 methods

#### • Unique Approach:

We combine renewable energy with water management, tackling environmental and health issues together.

#### Adaptability:

Our project can be scaled to various water bodies, benefiting multiple communities.















# Our Expectations - We Khaen Change

#### **Positive Impact on Water Bodies**

Significant improvement in the safety and quality of rivers and other water bodies in Laos.

#### **Government Support**

Increased govermental interest and investment in sustainable innovation for environment protection.

#### **Community Engagement**

Greater awareness and participation from local communities in maintaining clean and healthy water sources.









#### **Long-term Sustainability**

Contribution to the achievement of SDG 7 and SDG 11.

#### **Collaboration Opportunities**

Partnership with local businesses & international organizations to further develop and implement the technology.









# How it can contribution to SDG 7 and SDG 11?

- SDG 7:
  - We promote clean energy through solar power from the sun to operate a water purification and aeration system.
- SDG 11:
  - Our project improves urban and rural water management, enhances living conditions by mainly reducing mosqito-borne diseases. Apart from this is to be good for both aquatic system and human health.









# Way to sustainability











#### **Animal Welfare**

Enhanced Oxygen levels and cleaner water support healthier fish and aquatic ecosystem.

#### **Cost Efficiency**

Solar Power eliminates ongoing electricity costs and reduces dependence on non-renewable energy sources.

### **Human Health**

Reduced risk of mosquito-borne diseases like dengue fever.

# Inspiration for Further Development

Encourages investment in sustainable and green technologies.

# **Education Opportunities**

The project can be used as an educational tool to teach local communities about renwable energy and environmental conservation.

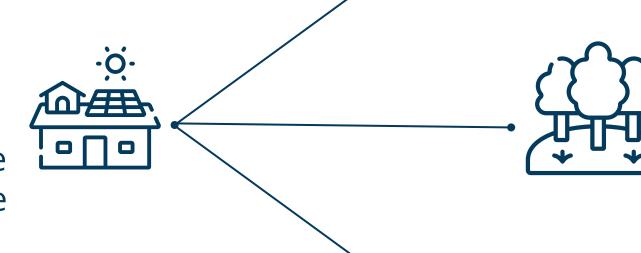




# Conclusion

### **Summary of Innovation**

The Solar Power Fountains Water Pump is a sustainable solution addressing multiple environmental and health issues in Laos.



#### Future Vision

Reduce a rate of Dangue fever, cleaner, healthier environment with enhanced aquatic life and reduced health risks.

#### **Call to Action**

Encourage stakeholders to support and invest in this innovation for a sustainable future.



#### **Invitation for Collaboration**

Open invitation to researchers, businesses and NGOs to collaborate on expanding and refining the project

