emplement!

Empowering urban regions for cooperative, synergistic and practical implementation of sustainability and resilience strategies considering the urban-rural nexus

SURE Status Seminar

Parallel Sessions I
May 4th, 2022 13.30 – 15.00
Resource Efficiency and Mitigation

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System Level

Policy Framework
- Da Nang City
- Quang Nam Province

Strategies & Plans
- Socio-economy
- Green Growth
- Sustainability
- Resilience

Fields of Action
- Agriculture / Forestry
- Tourism
- Industry
- Built Environment

Technology Level

Technologies
- Synergetic, modular, adaptable, affordable, …
- Reduction, recycling, treatment, disposal, supply, …
- Water, energy, safe food, wastewater, waste

Implementation Level

Regulations & Governance
- Regulations for implementation
- Technology /management standards
- City- province cooperation

Stakeholder & Communication
- Interdisciplinary communication
- Stakeholder involvement / Co-design
- Information & data access

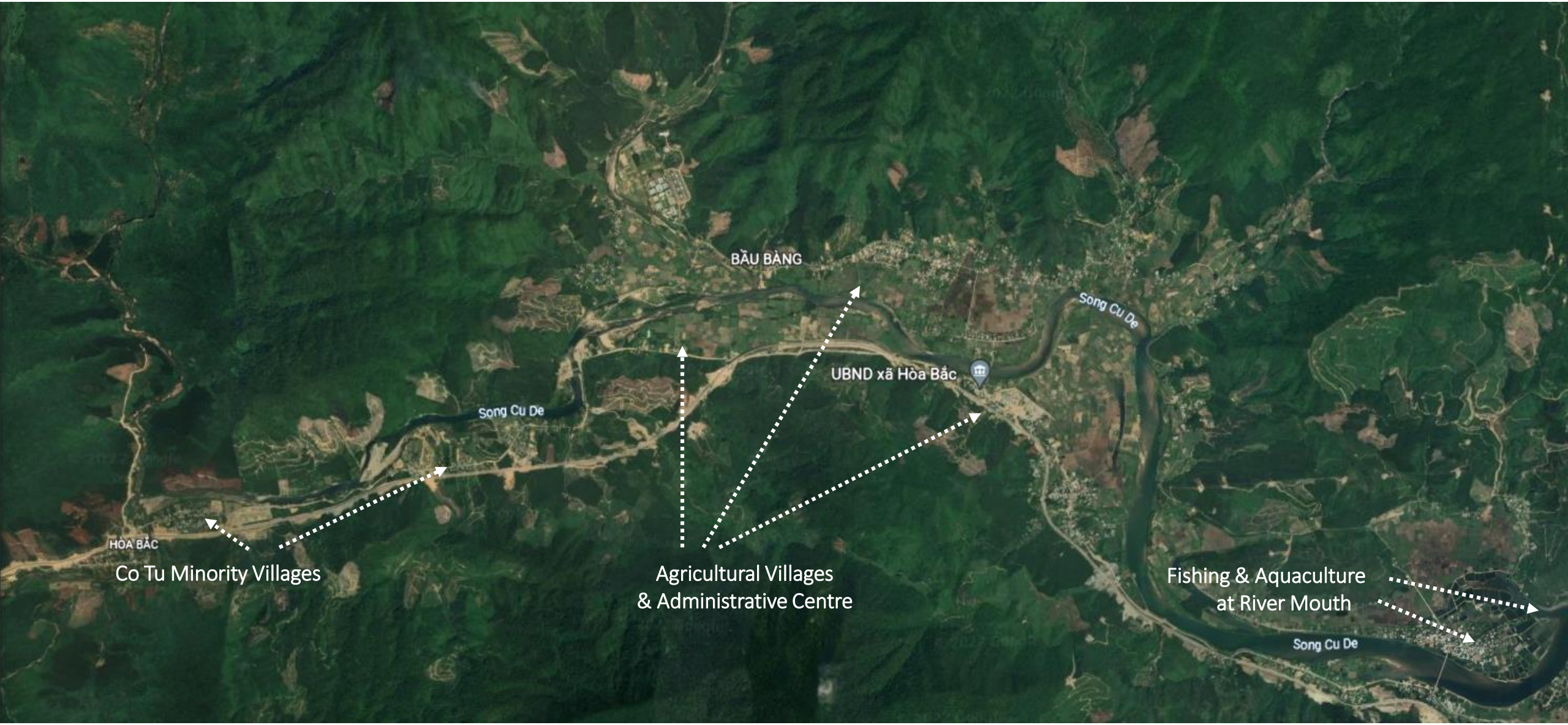
Pilot Projects / Modules
- Sustainable tourism
- Sustainable forestry and agriculture
- Decentralised sanitation
- Adapted technologies for buildings
- Sustainable industry concept

Empowerment
Awareness; knowledge; systemic thinking;
synergetic technologies;
city-province cooperation

Resource efficiency
Sustainable sanitation
Protect / strengthen biodiversity
Preservation of cultural heritage
Supply & disposal infrastructure

Project Location

Cu De River Valley



Cu De River Valley Activities 2019 - 2022

- Summer School in 2019 in the Cu De River Valley with Vietnamese and German students
- Focus groups survey with community leaders
- Workshops between the community and Vietnamese students
- Capacity building activities for sustainable agriculture for locals

Qualitative data collection processes with students, community leaders and local authorities

Cu De River Valley Challenges

- Preservation of **cultural heritage**
- Diversification of **incomes**
- Protection of **biodiversity**
- Improvement of **sanitation and garbage collection** systems

- Reduction in unsustainable **logging** activities
- Protection of **water resources**
- Diversification in **agriculture** products
- Implementation of sustainable agriculture practices
- Improvement in road **connection to Da Nang**

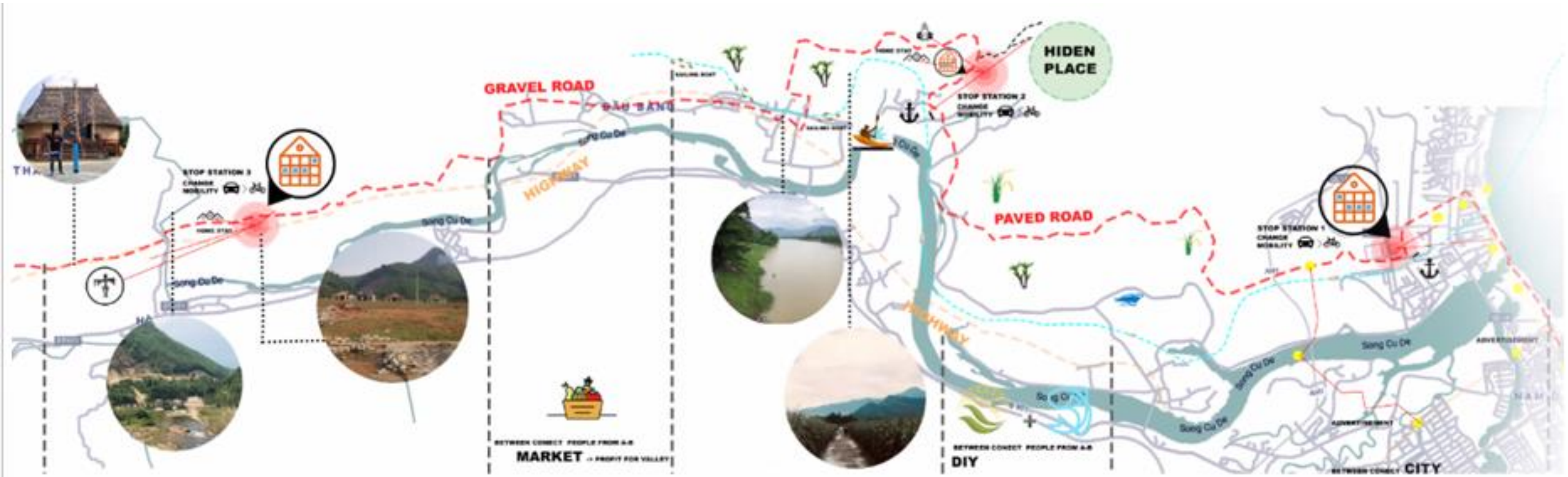
- Protection of water resources
- Implementation of **sustainable fishery**
- Improvement **sanitation** and garbage collection systems

Co Tu Minority Villages

Agricultural Villages
& Administrative Centre

Fishing & Aquaculture
at River Mouth

Cu De River Valley – Preliminary Conceptualisation



Culture Languages Visitors Home-Stays Sustainable Tourism Long-term Attractiveness Commerce
Traditions Public Infrastructure Eco-Tourism Da Nang City
Community Sanitation Skills Know-how Agriculture Erosion Logging Forestry Environmental Protection

Sustainable Community Development Concept for the Cu De River Valley -CDRV-

General Objective

Promote sustainable community development in the CDRV through capacity building and the implementation of small-scale pilot projects

- Diversification of incomes
- Preservation of cultural heritage
- Climate change resilience
- Protection of natural resources
- Capacity building for sustainable tourism

An Integrated Community-Based Development Concept

Sustainable Community Development Concept for the Cu De River Valley -CDRV-

Pilot Projects

- Capacity building for sustainable tourism
- Culture and traditions transfer
- Sustainable forestry and agriculture strategies
- Sustainable sanitation strategies
- Capacity building for CB initiatives

An Integrated Community-Based Development Concept

Pilot Projects

Capacity building for sustainable tourism

- Capacity building in collective action and participatory community planning
- Skill training for eco-tourism
- Stakeholders support for small-scale project implementation

COVID19 became an opportunity for the CDRV to become a local tourism destination for the Da Nang residents and some young population returned to their home with useful IT knowledge and hospitality skills

Da Nang Architecture University 2021

Pilot Projects

Culture and traditions transfer

- Inter-generational knowledge sharing activities
- Promotion of local handicrafts
- Skill training for cultural tourism
- Workshops with the community and visitors
- Local traditions as instruments for sustainable community development

Da Nang Architecture University 2021

Pilot Projects

Sustainable forestry strategies

- Capacity building workshops in strategies for sustainable forestry
- Raising awareness about the impacts of unsustainable logging practices on the local biodiversity and water quality and flooding incidence in the valley
- Strategies for mitigating the effects of current logging practices and preventing further erosion
- Ensure long-term income for the community (thematic forest tours, medicinal herbs, mushrooms, etc.)

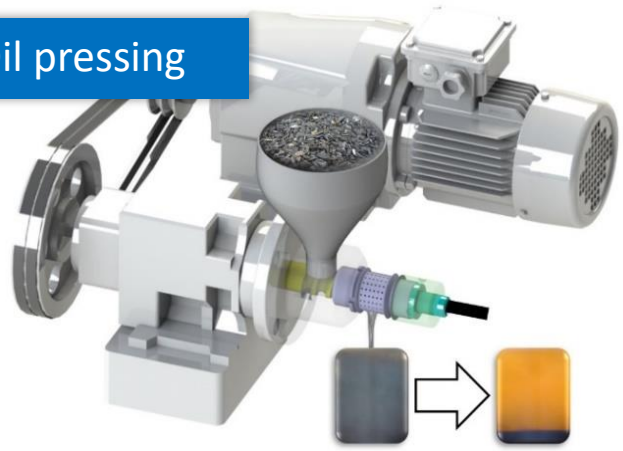
Pilot Projects

Sustainable agriculture technologies

- Capacity development in sustainable agriculture through on-site workshops
- Diversification of agriculture products
- Skill training in utilisation of environment-friendly technologies for value-added agricultural products
- Application of sustainable postharvest technologies at cooperatives and SMEs
- Reduction of CO2 emission by integration of solar photovoltaic (PV) system for electricity generation

Solar drying

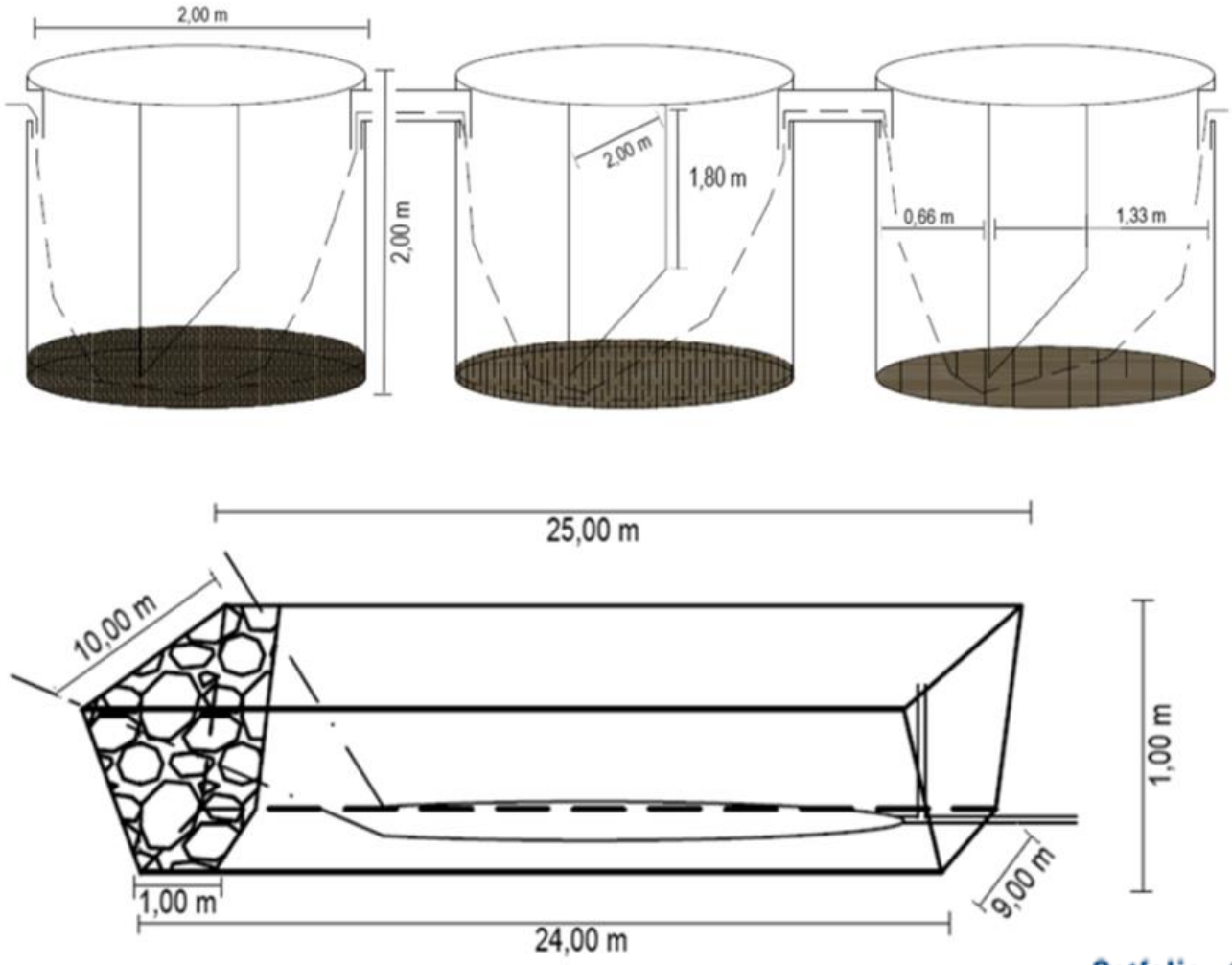
Oil pressing



Pilot Projects

Sustainable sanitation measures

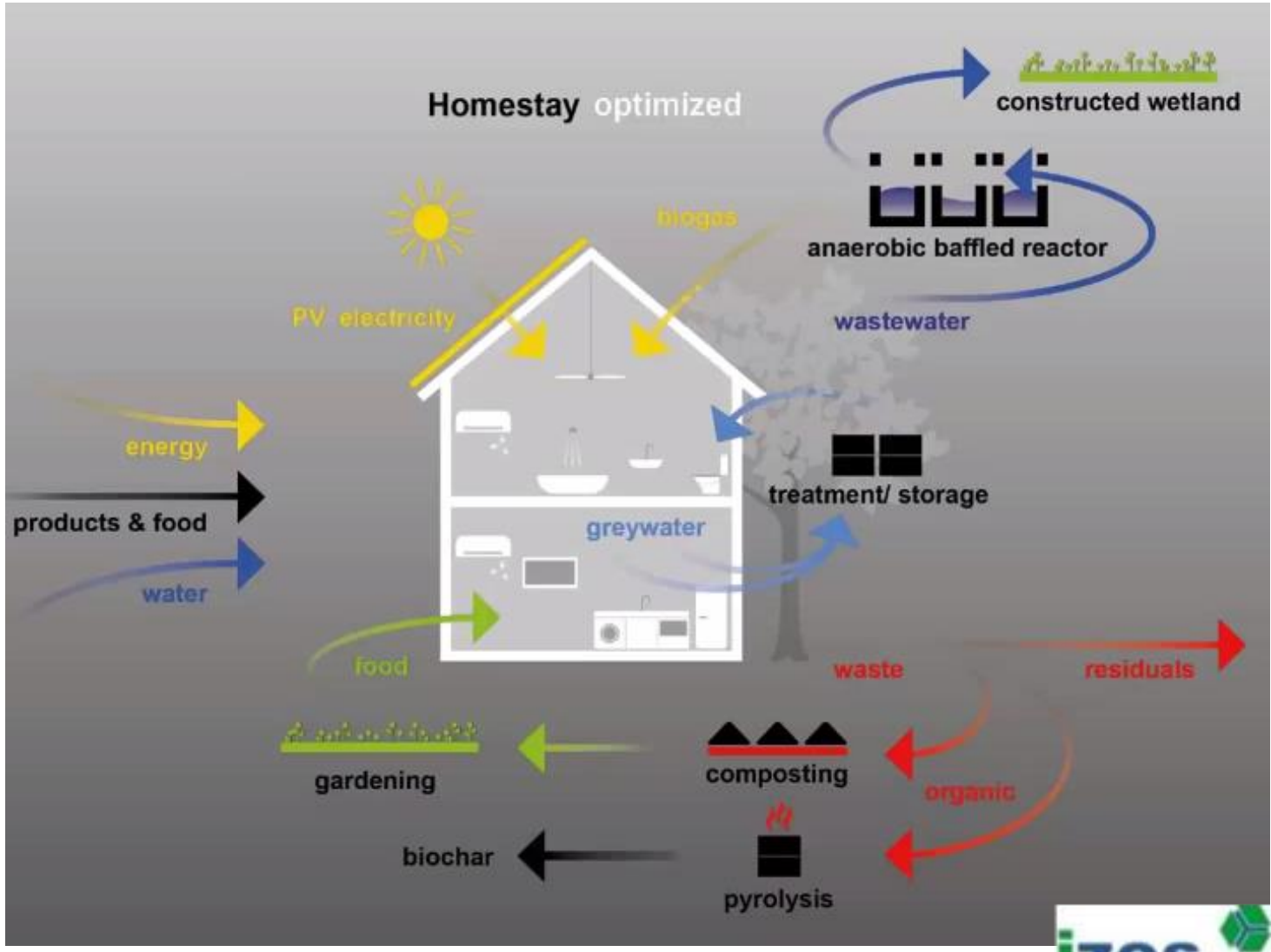
- Capacity building workshops in sanitation management
- Pilot plant for wastewater treatment at the homestay Alang Nhu in the CDRV
- Anaerobic Baffled Reactor and constructed wetlands
- Retention of solids, nutrients (e.g. nitrogen)
- Strategies for decentralised sanitation systems



Pilot Projects

Improved technology concept for buildings

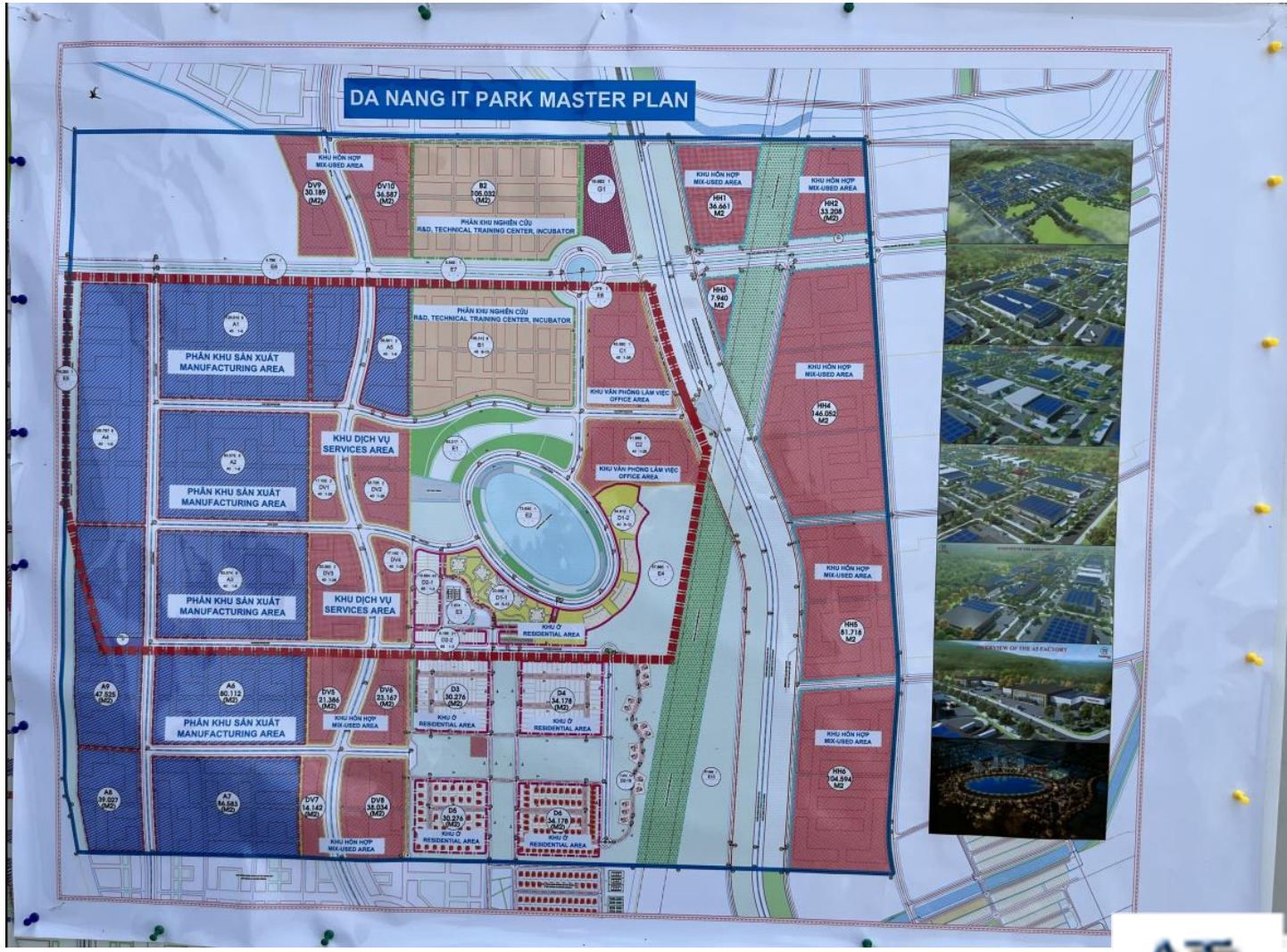
- Measures to increase energy efficiency and energy saving as well as production and use of renewable energies
- Natural ventilation and cooling in buildings to increase thermal comfort
- Measures for solid waste separating and recycling / composting
- Use of water-saving technologies, (re)use of rainwater and wastewater (grey water)
- Decentralized wastewater treatment



Pilot Projects

Sustainable Industrial Area (SIA) concept

- Capacity development workshops with company representatives on resource efficiency and sustainability
- Data generation on material flows / material flow analyses
- Information and data gathering on social aspects and needs of workers
- Identification of key (problem) areas and options for action
- Development of approaches for sustainable water / wastewater, solid waste, and energy management



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