

# FICHTNER

The Green Loan Program,  
Women-led households and  
Enterprises **ESHS**  
Yerevan, 25.03.2024

Promotion of Renewable Energies (Accompanying Measure) - Phase VI (GAF-RE)



Գերմանական  
համագործակցություն  
DEUTSCHE ZUSAMMENARBEIT

KFW



GAF

GERMAN  
ARMENIAN FUND  
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# Disclaimer

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# Health and Safety

## First Aid kit

- The First Aid kit shall be provided at project site.
- The kit should at least contain necessary medicines with valid expiration date.



## Personal Protective Equipment (PPE)

### The minimum PPE set shall include:

- Safety helmet
- Gloves
- Hi-visibility vest
- Safety shoes (steel cap toe)
- Harness – working at height
- Mask/Respirator – excavation, dusty conditions
- Etc



## Compliance of ESHS – housekeeping

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Housekeeping refers to Environmental and Health and Safety aspects that:

- ❖ Reduce potential for accident and incidents
- ❖ Ensure long-term gains vs short-term.
- ❖ Reduce exposure to penalties and financial costs.

| <b>Good Housekeeping</b>              | <b>Poor Housekeeping</b>                    |
|---------------------------------------|---|
| Waste sorted and stored appropriately | Fly waste all over property and surrounds   |
| Bundled hydro-carbons                 | Oil spills, wastage resulting in costs      |
| Good storage = good stock keeping     | Poor storage = excess purchases and wastage |
| Better moral                          | No care attitude                            |

**Housekeeping important for local and International Regulations and Standards.**

# Waste Management on and off site

Construction period – solid domestic waste

Acceptable bin



Bin – loose waste

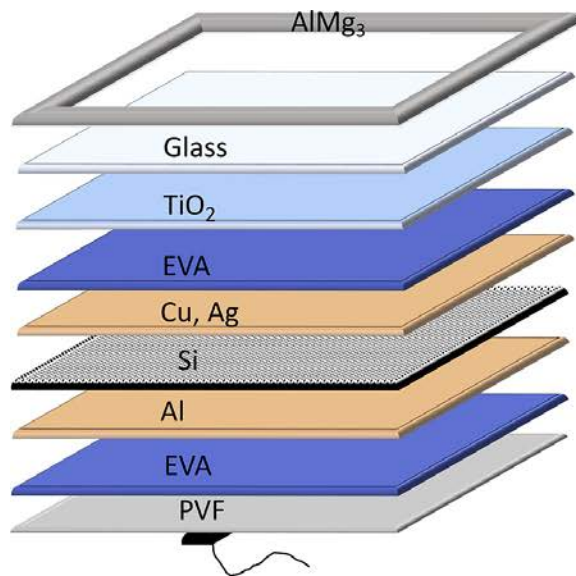


Waste left uncleared

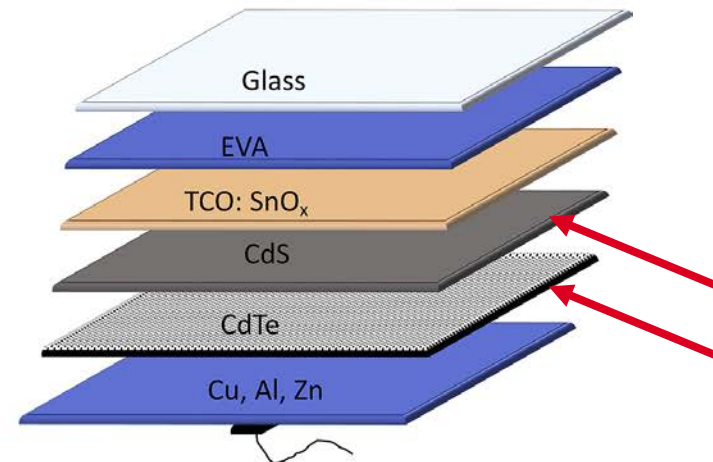


# PV module disposal and recycling

Studies have shown the heavy metals in solar panels — namely **lead** and **cadmium** — can leach out of the cells and get into groundwater, as well as affect plants. These metals also have a record for detrimental effects on human health. Lead is commonly known to impair brain development in children, and cadmium is a carcinogen.



Recycling of crystalline silicon and CdTe photovoltaic module



# PV module disposal and recycling

Sample of damaged PV modules

Broken glass



Broken glass

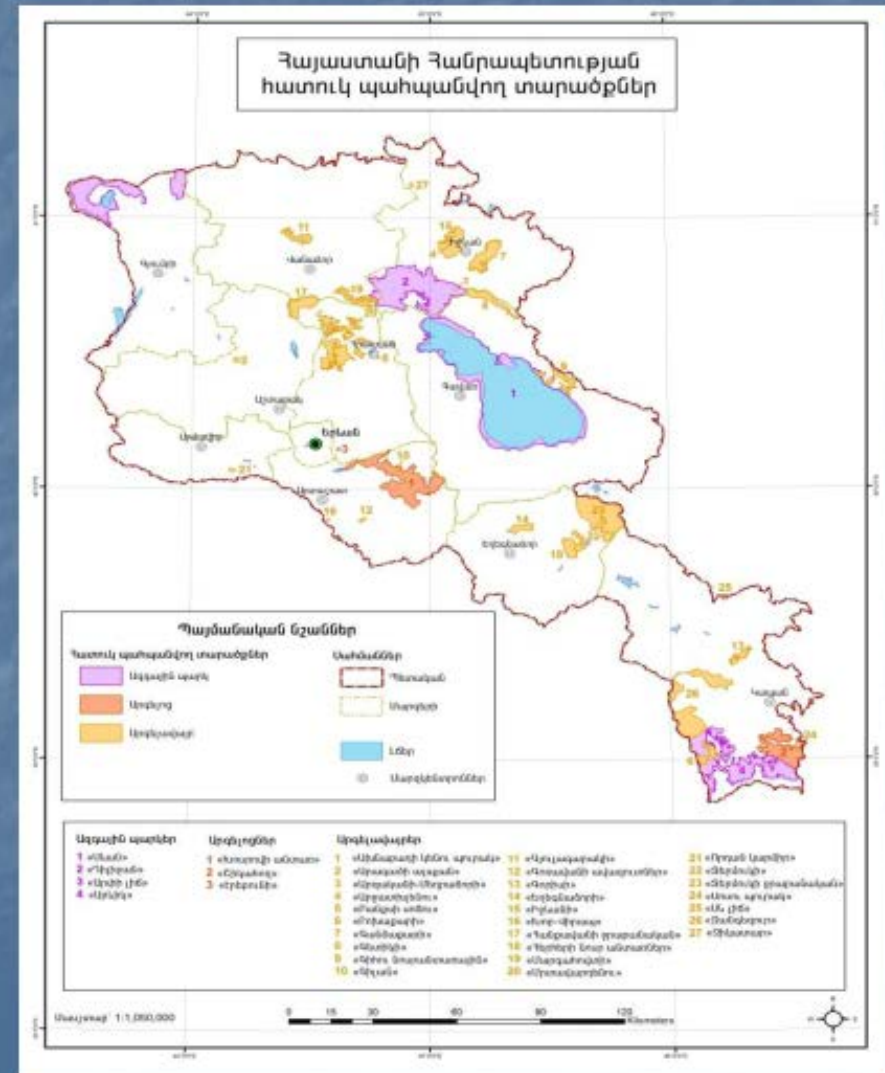


Temporary storage of broken panels, wrapped

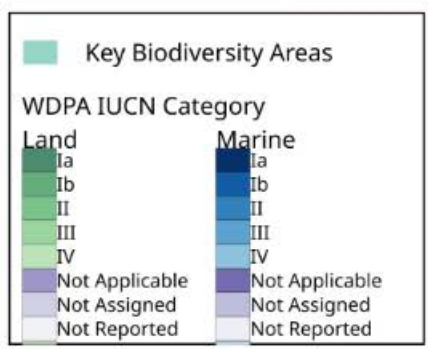
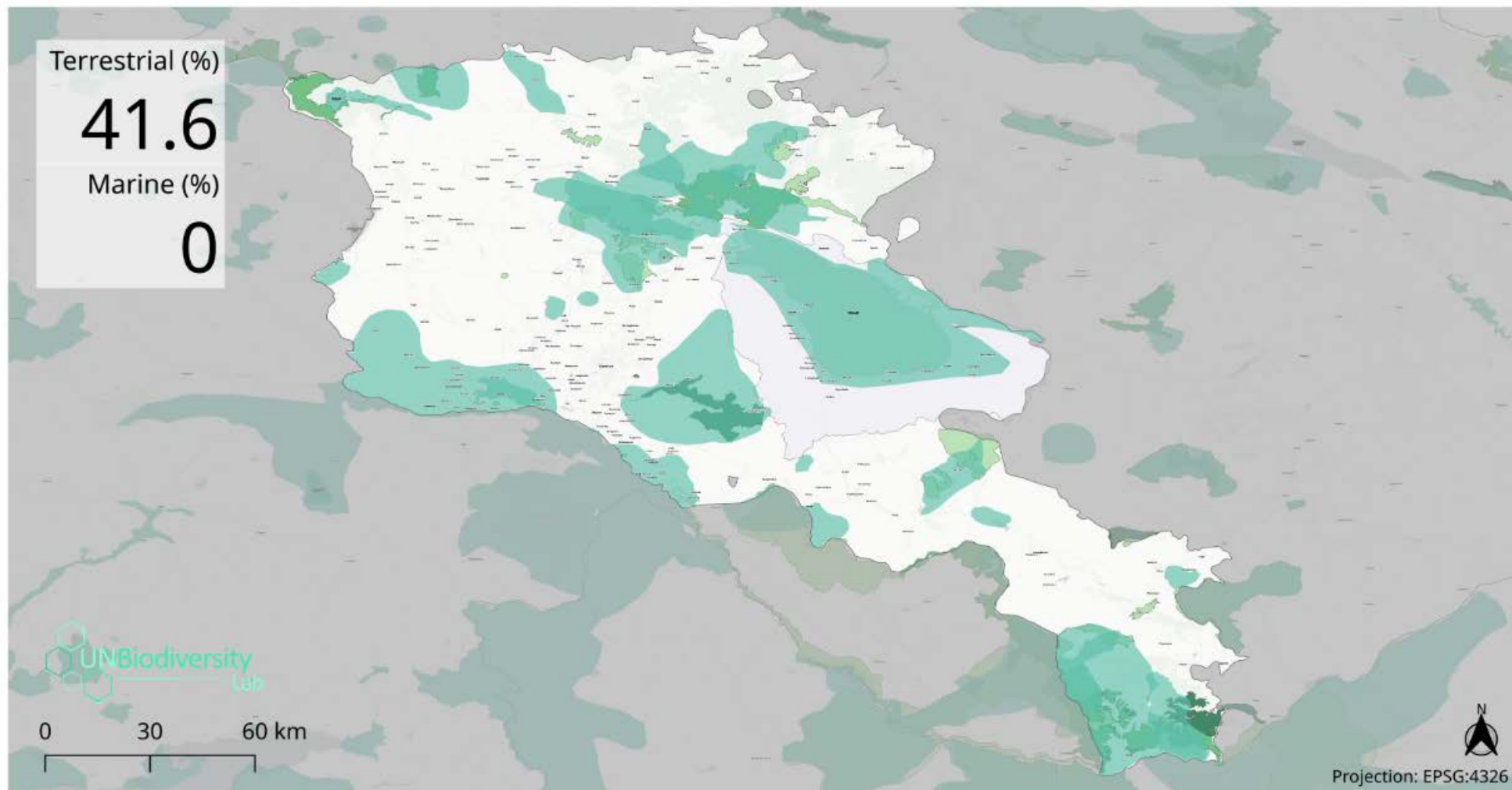


# SPECIALLY PROTECTED NATURE AREAS OF ARMENIA

- **State Reserves**
- <<Khosrov Forest>>
- <<Shikahogh>>
- <<Erebuni>>
  
- **National parks**
- <<Dilijan>>
- <<Lake Sevan>>
- <<Lake Arpi>>
- <<Arevik
- **26 State Reservations**
- **230 Nature Monuments**







## Data: Key Biodiversity Area Protection

### Country: Armenia

Data Sources:  
 World Database of Key Biodiversity Areas. Developed by the KBA Partnership (BirdLife International, International Union for the Conservation of Nature, Amphibian Survival Alliance, Conservation International, Critical Ecosystem Partnership Fund, Global Environment Facility, Global Wildlife Conservation, NatureServe, Rainforest Trust, Royal Society for the Conservation of Birds, Wildlife Conservation Society and World Wildlife Fund); UNEP-WCMC, IUCN, and NGS, 2018. Protected Planet: The World Database on Protected Areas (WDPA) [On-line], October 2018. Cambridge, UK: UNEP-WCMC and IUCN; Flanders Marine Institute (2018). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 10; Global Administrative Unit Layers (GAUL), 2015. UN Cartographic Unit

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