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ENERGY WEEK



25-27 ՀՈՒՆՎԱՐ/JANUARY, 2017

ԱԲ Aries Energía

Masrik-1 PV Plant- ESIA, RPF



# Environmental and Social Impact Assessment

## • Objectives and Methodology

- Study based on World Bank Guidelines
  - Analysis of legal and regulatory framework. Identification of gaps between Armenian legislation and WB safeguard policies
  - Desktop and field biophysical environment study.
- 
- Consultations with representatives of relevant governmental organizations and local communities
  - General Identification of the overhead transmission line route
  - Archeological investigations
  - Preparation of Environmental Management Plan and Mitigation Measures.





# Environmental and Social Impact Assessment: Current situation at the Site

## Land status and use

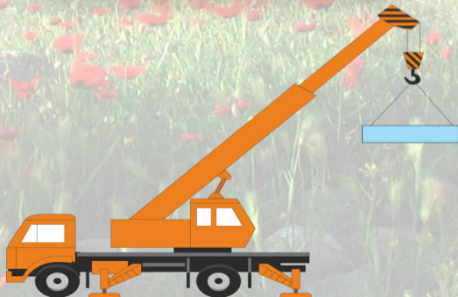
- Agricultural land (pasture category)
- Community owned (no 3<sup>rd</sup> person rights)

## Infrastructure

- None at the site

## Water bodies

- Masrik river (distance ~1km)





# Environmental and Social Impact Assessment: Main Expected Impacts



## Negative Impact

- Flora and Fauna
- Topsoil
- Waste
- Nuisance to local communities
- Pastures and cattle paths

## Positive Impact

- Employment
- Clean energy
- Status and development of the region/community

## No impact

- Historical
- Cultural



## ESIA AND ESMP: CONCLUSION

- Negative environmental and social impacts occur mainly during the construction phase.
- No major costs expected from mitigation measures
- **Masrik 1 PV plant and OTLs can be constructed and operated without significant adverse impacts**



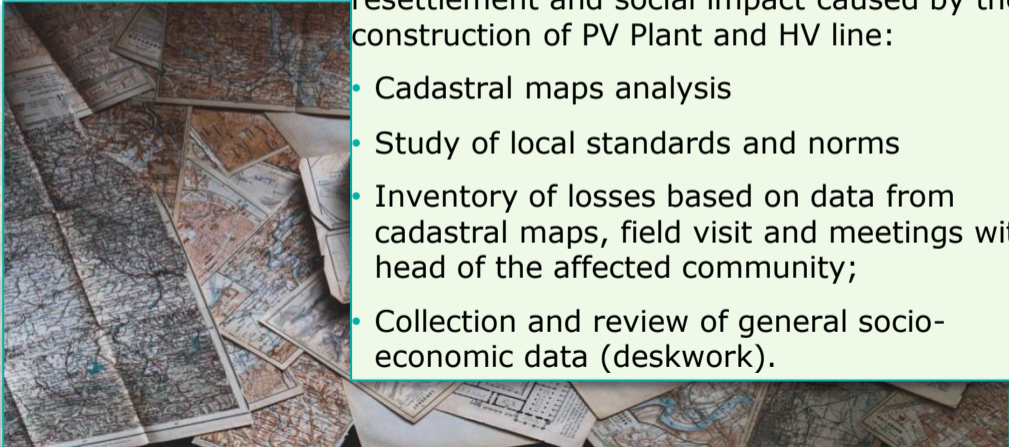


# LAND ACQUISITION AND RESETTLEMENT

## Objectives and Methodology

Steps undertaken to assess land acquisition, resettlement and social impact caused by the construction of PV Plant and HV line:

- Cadastral maps analysis
- Study of local standards and norms
- Inventory of losses based on data from cadastral maps, field visit and meetings with head of the affected community;
- Collection and review of general socio-economic data (deskwork).





## LAND ACQUISITION AND RESETTLEMENT: COMPONENTS FOR WHICH LAND ACQUISITION AND RELOCATION ARE POSSIBLE

Private Land acquisition required only for construction of tower foundations.

Compensation required for:

- Damages to crops / trees during land survey;
- Damages to crops / land for construction of access roads (temporary access roads will be required for construction of the HV line);
- Damages to crops for lay down areas and during stringing procedure.

Agriculture (with height limitations) and livestock grazing will be possible in the ROW with exception at tower foundations



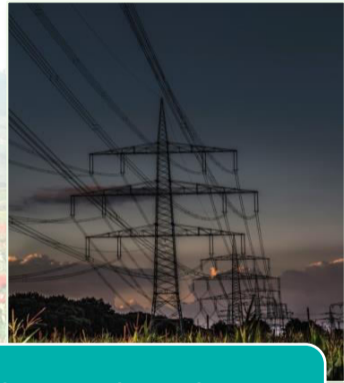


# RESETTLEMENT ACTION PLAN (RAP) IMPLEMENTATION PROCESS

Four phases can be distinguished:

- RAP preparation
- RAP finalization
- RAP implementation
- Start of Civil Works

- RPF has already been prepared
- The Developer will be responsible for preparing the RAP based on the final design
- Any compensations required (i.e. RAP implementation) will need to be made prior to the start of any civil works.







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