In relation to irrigation and drainage, the role of MARD is to Support of agriculture development through the sustainable management of irrigation, drainage and flood protection, improving efficiency of water resources usage for irrigation, reducing the risk by dam destruction and river and sea flooding

#### Water resources for irrigation

560 million m3 can be collected in reservoirs;

450 million m3 obtained from rivers.

#### Actually:

**630 reservoirs** spread out to the entire territory for irrigation of around 200 000 ha.

Due to the long time of operation, along with the natural phenomenon of sedimentation, the water containing capacity, according to approximate assessment **is reduced by** 35%

#### Safety dams

Problematic is the safety of dams of reservoirs used for irrigation. However so far, none of the dams has been totally damaged causing casualties or economic harm, the damages caused are evident and they pose risks of various degrees. In many cases, beside the lower part of the dams, new urban zones have been established which were not provided for in the design.

**65% of dams have problems**, including old or recent slips, sink holes, significant settlement, cracks, or significant movement, significant blockage in spillway/ outlet pipe, significant seepage etc.

The objectives of the MARD consist in:

- •Continuous meeting of water needs of farmers, through the process of rehabilitation and modernization of existing infrastructure (including dams of reservoirs used for irrigation).
- •Guaranteeing drainage, with priority in western low land, through rehabilitation and improvement of existing infrastructure, improving capacities of pumping stations for drainage, and modernizing them.
- •Reduction of risk against a river and sea flooding, through new designs of protective structures in response to new changes and urban development's of the zones close to rivers and their discharges.
- •Sustainable management of irrigation systems harmonizing the role and responsibilities of central government with the direct involvement of municipaties and Water Use Organizations.
- •Sustainable management of drainage and flood protection systems by central government aim at the gradual strengthening of the role, responsibilities and contribution of stakeholders and local beneficiaries.

Refer to National Strategy on Irrigation and drainage 2019-2031 and Action Plan:

**Total cost** for rehabilitation and modernization of irrigation and drainage infrastructure, dams safety and flood protection works is about **\$717 million USD**, as following:

- •\$253.6 million USD cost of rehabilitation and modernization of irrigation infrastructure to make it possible to irrigate a potentially irrigable area of 360,000 ha (currently 250 000 ha, target 360 000 ha);
- •\$56.5 million USD to restore on optimal conditions the drainage infrastructure at a potentially area of 280,000 ha
- •\$130.2 million USD to rehabilitate 410 dams (or approximately 65 % of total number of dams) to increase their security and to guarantee water resources for existing schemes (currently 40 dams, target 410 dams);
- •\$276.8 million USD to increase the river and sea flood protection through rehabilitation / reconstruction of existing embankments and construction of new structures (currently 70 km, target 300 km).

Since 2015 the government of Albania has decentralized irrigation and drainage management to municipalities and recognize it as a competency of local self-government and while a large part of the irrigation and drainage infrastructure (primary and secondary canals and 630 dams), administrated by the 61 municipalities.

The Ministry, every year through the budget program "Management of irrigation and drainage infrastructure", allocates investments and expenses for the operation, maintenance and rehabilitation of irrigation, drainage and flood protection infrastructure.

Durin the period 2013-2020 are invested approx 200 million USD

The implementation of this program is done through

- •4 institutions of MAFRD (Regional Director of Irrigation and Drainage)
- •61 municipalities

### In the context of Nexus Project:

- •Consideration for the future of potential water energy for production renewable energy
- •Use of this energy in agricultural activities such as irrigation with pressure piping systems in small areas.
- •Use of water surface of reservoirs for installation of photovoltaic panels