



elektroprojekt

Established 1949

Consulting Engineers

IRRIGATION

Irrigation Plans
Feasibility Studies
Preliminary Studies
Conceptual Designs
Basic Designs
Detailed Designs
Supervision

Mahabad Dam



Use of irrigation towards quality food security and increased production

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Irrigation and drainage references:

Total 1,092,071 ha

Myanmar (Burma) - total 18,000 ha

- **Nanlet** 11,500 ha, Conceptual and Basic Design
- **Washawng** 6,500 ha, Investigations, Conceptual and Basic Design, supervision

Egypt 12,000 ha

- **Ei Zawia** 12,000 ha, Reconnaissance Report, Final Design, supervision

Ethiopia - total 8,000 ha

- **Abbaya Chamo** 5,000 ha, Study
- **Awassa** 3,000 ha, Conceptual and Basic Design

Iran - total 439,500 ha

- **Gadar Chai** 41,500 ha, Study
- **Little Zab** 20,000 ha, Study and Conceptual Design
- **Mahabad** 18,200 ha, Conceptual and Basic Design, supervision
- **Salmas** 20,000 ha, Conceptual and Basic Design, supervision
- **Aliabad-Fazlabad** 25,000 ha, Conceptual Design
- **Jiroft** 33,500 ha, Conceptual and Basic Design
- **Sarakhs** 25,300 ha, Conceptual and Basic Design
- **Orumiyeh** 71,000 ha, Conceptual and Basic Design
- **Shahpur** 185,000 ha, Study

Libya - total 3,695 ha

- **Maknussa** 1,580 ha, Conceptual and Basic Design
- **Wadi Tanezzoft** 1,500 ha, Conceptual and Basic Design
- **Gatrun** 615 ha, Conceptual and Basic Design

Russian Federation - total 20,930 ha

- **Argun** 20,930 ha, Study

Croatia – total 589,946 ha

- **Drava - Đurđevac-Barč**, Land reclamation, Study, 205,573 ha
- **Lonjsko Polje**, Drainage and flood control, Basic Design, 11,380 ha
- **Drava, Moslavina Osijek**, Irrigation, Reconnaissance Report, 66,085 ha
- **Vuka**, Irrigation and drainage, Study, 112,352 ha
- **Drava**, The Drava valley land development in Koprivnica – Kri evci County, Terms of Reference, 76,863 ha

Croatia last 10 years:

- **Međimurje County**, Irrigation Plan, 22,978 ha
- **Virovitica - Podravina County**, Irrigation Plan, 46,416 ha
- **Lika - Senj County**, Irrigation Plan, 6,218 ha
- **Vukovar - Srijem County**: 8 Irrigation Systems, 4.596 ha
- **Osijek - Baranja County**: 9 Irrigation Systems, 14.737 ha
- **Virovitica - Podravina County**: 3 Irrigation Systems, 2.578 ha
- **Brod - Posavina County**: Irrigation System, 608 ha
- **Požega - Slavonija County**: Irrigation System, 575 ha
- **Bjelovar - Bilogora County**: Irrigation System, 416 ha
- **Međimurje County**: 2 Irrigation Systems, 2.450 ha
- **Istra County**: 2 Irrigation Systems, 935 ha
- **Lika - Senj County**: Irrigation System, 62 ha
- **Zadar County**: Irrigation System, 1.439 ha
- **Split - Dalmacija County**: 2 Irrigation Systems, 13.236 ha
- **Dubrovnik - Neretva County**: 7 Irrigation Systems, 449 ha



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mission

creating reliable, efficient and sustainable harmony of construction and technology with mankind and nature for present and future generations.

activities

Design, consulting and engineering of development, building and management in energy sector, water management, nature conservation, municipal services, public facilities and telecommunications

elektroprojekt

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CROATIA

LAST 10 YEARS

All strategic documents on the Republic of Croatia development set agriculture as a priority, highlighting the "green-blue line" concept with agriculture and tourism as complementary sectors. During the last ten years, Elektroprojekt has developed numerous design documents on agricultural land irrigation in Croatia, including 3 county irrigation plans, 22 feasibility studies, 17 preliminary studies, 15 conceptual designs, 8 basic designs and 8 detailed designs, and carried out 1 design document revision. Elektroprojekt is currently developing another 3 feasibility studies, 1 preliminary study, 6 conceptual designs, 1 basic design and 5 detailed designs. Total area 42.081 ha, 38 different irrigation systems

Opatovac

Irrigation area: 705 ha
Pumping station: Q=320 l/s
Pressured pipeline: L=16,387 m



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Miholjački Poreč

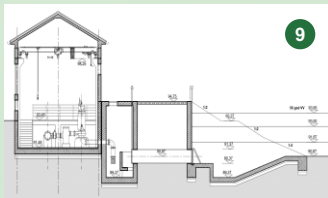
Irrigation area: 490 ha
Pumping station: Q=300 l/s
Pressured pipeline: L=13,533 m



13

Budimci-Krndija

Irrigation area: 578 ha
Pumping station: Q=460 l/s
Pressured pipeline: L=18,338 m



9

Dravski rit

Irrigation area: 9874 ha
Pumping station: Q=2000 l/s
Open canals: L=274,295 m



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County irrigation plans:

(1) Me imurje County, (2) Virovitica - Podravina County, (3) Lika - Senj County

Irrigation system:

(1) Opatovac - 704 ha, (2) Sopot - 705 ha, (3) Pavlovac - 171 ha, (4) Sokolovac - 182 ha, (5) Berak - 497 ha, (6) Negoslavci - 411 ha, (7) eletovci - 179 ha, (8) Tovarnik - 1747 ha, (9) Budimci-Krndija - 565 ha, (10) Miholjac-Viljevo - 682 ha, (11) Kapelna - 1216 ha, (12) Kitišanci - 1.198 ha, (13) Miholaj ki Pore - 490 ha, (14) Poljoprivredni institut Osijek - 156 ha, (15) Mala šuma-Veliki vrt - 83 ha, (16) Dravski rit - 9874 ha, (17) Baranjsko brdo - 473 ha, (18) Kapinci-Vaška - 1260 ha, (19) Kapinci-Vaška - 2nd phase - 568 ha, (20) Novi Gradac-Đetkovac - 750 ha, (21) Oriovac - 608 ha, (22) Pakrac-Lipik - 575 ha, (23) Kapelica-Kaniška Iva - 416 ha, (24) Prelog-Donji Kraljevec - 1731 ha, (25) Belica - 719 ha, (26) ervar Porat-Bašarinika - 555 ha, (27) epi polje - 380 ha, (28) Novaljsko polje - 62 ha, (29) Vransko polje - 1439 ha, (30) Sinjsko polje - 3736 ha, (31) Imotsko-bekijsko polje - 9500 ha, (32) Donje polje - 81 ha, (33) arsko polje - 97 ha, (34) Smokvi ko polje - 111 ha, (35) Vrbovica-Kruševo - 19 ha, (36) Bradat - 35 ha, (37) Vinopolje - 42 ha, (38) Prgovo polje - 64 ha

A permanent demand for food all over the world requires an intense development of agriculture. Such development is possible only by establishing modern irrigation and drainage system over large areas. Low average yield varying in different years is most often due to weather conditions. Draughts cause substantial financial damage to the society as a whole.

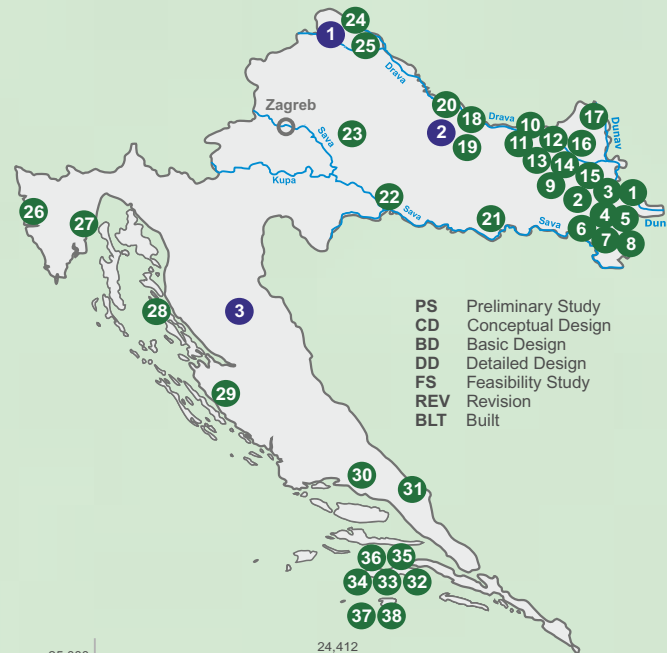
Irrigation is a soil-improvement measure undertaken to make up for water deficit in soil to achieve crop biological potential.

Elektroprojekt has developed design documentation for numerous irrigation and drainage systems making optimum and integral use of the surface and groundwater resources.

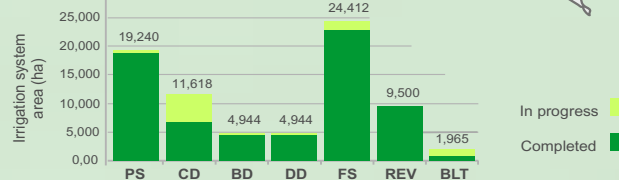
Elektroprojekt provides:

Climate data analysis
Hydrology data analysis
Pedology and agricultural documentation
Integration with the spatial planning documents
Determining an optimum alternative
Determining an irrigation water source

Water intake and conveyance
Pumping stations - civil, architectural, electrical and mechanical designs
Water distribution by pressurized pipe systems or open canals
Hydraulic calculations
Structural analysis and design
Electrical grid connection
Economic and financial analyses



PS Preliminary Study
CD Conceptual Design
BD Basic Design
DD Detailed Design
FS Feasibility Study
REV Revision
BLT Built



IRAN

MAHABAD, ORUMIYEH AND SALMAS



The **Mahabad** multipurpose project is located on the Mahabad River. Its construction ensures a controlled water supply to 18,200 ha irrigation system.

Construction of a dam on the Mahabad River creates a 230 mil. m³ reservoir regulating the water flow to the irrigation system. A diversion dam impounds a compensating reservoir 8 km downstream from the main dam. The total length of main canal is about 30 km, the total length of branch canals 158 km, and of lateral canals 118 km, including the gravity and pumping irrigation system.



A design is prepared for the **Orumiyeh** area irrigation system servicing 71,000 ha of land. A part thereof, i.e. 48,000 ha, is irrigated using the river water. Two reservoirs need to be built for the purpose with total storage capacity of 285 mil m. Another part of this area, 23,000 ha, is irrigated by tapping groundwater.

A design is prepared for the **Salmas** area irrigation system servicing 20,000 ha of land. The water for irrigation is provided by construction of a reservoir with storage capacity of 105 mil m.



LIBYA

MAKNUSSA, GATRUN AND WADI TANEZZOFT



The **Maknussa, Gatrun** and **Wadi Tanezzoft** project implementation resulted in irrigation of 1,580 ha, 615 ha and 1,500 ha, respectively. The project areas are located in arid South-West Libyan desert region where no surface water is available. Groundwater tapped at the depth between 100 and 600 m is used for agricultural land irrigation and water supply.

