

Modern irrigation in Syria

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Abstract

Agriculture sector consumes around (80%) of total available water, to irrigate (1490) thousand ha., using available surface and groundwater.

Traditional surface irrigation prevails over more than (80%) of irrigated area in Syria, standard water requirements are not taken into consideration, whereas plants are given between [8000-16000] m³/ha. of water. In addition, using an open government irrigation canals led up to losses of about [30-50]% of conducted water through leakage and evaporation.

Using modern irrigation started as individual initiatives, then the government supported the introduction of these techniques through the national programme for transferring to modern irrigation that started late 2000. This programme set up to convert all irrigated area, where possible, from traditional methods to modern irrigation systems during 10 years period. The government has issued several decisions for facilitating transfer process and ironing out the financial and administrative constraints facing the implementation of this programme.

Keywords: modern irrigation – Traditional irrigation.

For the abstract in Arabic see pages (23-42).

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References:

- 1) Salamah, dr. maen,2006 - Raise the efficiency of water use in agriculture. Tempus project , Publications of the Faculty of Civil Engineering, Directorate of books and publications, Al-Baath University, 318 pages.
- 2) ALshawa, dr. Farouk, (1977-1978) - Irrigation and drainage, College of Agriculture publications - University of Damascus, 152 pages.
- 3) Assaf, dr. Imad al-Din; dr. Adnan Al-nahas, (2009-2010) - Irrigation and Drainage, Publications of the Faculty of Civil Engineering, Directorate of books and publications, Damascus University, 363 pages.
- 4) Assaf, dr. Imad al-Din; dr. Adnan Al-nahas, dr. Nidal Sheikh Qasim, (2010-2011), Land reclamation, publications Faculty of Civil Engineering, Directorate of books and publications, the University of Damascus, 237 pages.
- 5) Atia, Qusay, "the water crisis between Syria and neighboring countries and its impact on economic development in Syria," a thesis prepared for the Master's degree in international relations. Tishreen University, Faculty of Economics, Department of International Relations, 2003.
- 6) Elghzole, M. Mr. Mahmoud, 1993 - the implementation of subsurface drainage systems and it design. Joint Egyptian-Syrian on the investment and maintenance of irrigation and drainage projects - Damascus, 44 pages.
- 7) Kang, dr. Asaad, (1989-1990) - irrigation works. Publications of the Faculty of Civil Engineering, Department of books and publications in university, University of Teshreen, 257 pages.
- 8) Somi, dr. George; dr. Maen David, 2004 - uses of water resources in the Syrian Arab Republic. Ministry of Agriculture and Agrarian Reform - Public Authority for Agricultural Scientific Research - Department of Water Resources Research - Damascus.
- 9) Abed Rabbo, Eng. Reem, Ministry of Local Administration, the Directorate of water safety, environmental characteristics, technical and economic shift to modern irrigation - Damascus - 2006.
- 10) Syrian Arab Republic, the State Planning Commission; Tenth Five Year Plan (2006-2010).
- 11) International Conference - modern irrigation obstacles and solutions, the University of Damascus - ,28 -31 / 3 / 2006.
- 12) Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD); the progress of work in the field of water resources for the years 2006 and 2007.
- 13) Set of notes the shift to modern irrigation for 2005 - General Commission for Scientific Agricultural Research - Department of Water Resources Research - Damascus.
- 14) Ministry of Irrigation, Water Resources Directorate, analyze the water in the Syrian Arab Republic from 1992 to 2003, Damascus, 2004.
- 15) Munther Khaddam, Arab water security, Center for Arab Unity Studies, Beirut, Lebanon, 2001.
- 16) Munther Khaddam, Syria's water security, and the Syrian Ministry of Culture, 2001.
- 17) Journal of water, water between the waste and streamlining, the first edition, 2005.
- 18) Al-Thawra newspaper, 14/11/2005.
- 19) Water Studies Centre and the Arab water security, water conservation seminar, 24 - April - 2005, Damascus.
- 20) Baath newspaper, 8.08.2006.
- 21) Baath newspaper, 7.02.2007.
- 22) Al-Watan newspaper, 18.07.2007.
- 23) Al-Furat, 19.o6.2006.
- 24) Al-Furat, 19.o9.2006.
- 25) Al-Furat, 12.06.2007.
- 26) First Symposium of Water Resources at the University of Damascus, 27.03.2007.
- 27) First Symposium of Water Resources at the University of Damascus, 24.03.2008.