

Increasing of productivity of production sources via connected lands usage of modern irrigation method. (use study in Selsele township)

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ABSTRACT: Dispersion and smallness of agricultural pieces, limit possibility of new and suggested management exploiting of agriculture among consolidating and rainy irrigation. Among them of this difficult, are little produce, non-economies of complementary activities, limitation on usage of mechanization and perishing of produce essential sources namely water and soil. So methods that at the same time. They are enforceable and prevent from waste of water and soil, and maintaining of economic produce, they can be eyewitness for experts and farmers. In connection with this, refer to a case in township that it has successful results. This farmer had about 15 ha of rain fed cultivated land in the mold of that with scattered 25 parcel exchange and buy, he increased total own lands area to 40 ha and in that stage became accountable digging of electrical deep well, usage of rainy irrigation system and reforming of cultivation plan. So lands that beforehand has been cultivated in the shape of rain fed wheat and possess maximum 1-1.2 ton per hectare, after digging of deep well and establishment of water reserve pool, the rainfed lands changed in to irrigated lands and with usage of regulated low-irrigation and in the mold of wisely and intelligently allocation of water, he reformed cultivation plan and in his farm cultivated irrigated wheat, alfalfa, bean, barely and bearing trees (about 1.5 hectare) and for example he increased yield of wheat middling to over 6 ton per hectare. The farmer with applying of proper management and applying investigational recommendations and directional ideal of specialists of township. Agricultural Jihad Management; he could become one of the successful harbinger farmers.

Keywords: Agricultural¹ produce, efficiency³ of water, cultivation² plan, getting⁴ together of lands

INTRODUCTION

Development of agriculture is one of the obvious appearances of economic and national expansion in the every country and on the basis of it is possible to developed countries commerce of the world, take into account in every country, in frastructure of industrial extension and services part in national economic. Among of instances that increase agriculture part importance are initiation of job, securing of foreign currency, improvement of national income, produce of food and securing of primary materials for services and industry parts. In our country, Iran, 4/5 of food need, 1/3 of nonoil exports and about 9/10 industries need to agricultural products. Also, in the 20 years ago up to now, in spite of active and considerable operation of different agricultural organizations in direction of growth and developing of agriculture part and privation removal on rural regions, it is necessary to own that agriculture part and ruval life yet seize by the collar with fundamental intricate like; deficit of useful investing capital in agriculture part, disharmony in great management og the part, deficit of support and doing services in rural

regions, carelessness to expansion of human sources in ruval regions, fundamental connection between agriculture part and industry and ... entirety good turn deserves another the extent increasing of produce for food turn quality and balancing promotion of efficiency in that manner has been a dream. At present in spite of ever-increasing population, growing needs to water sources and consequences arising from labile expansion and also interference of man in production distribution, consumption and regaining of water and coming into view effectual arising from water deficit at regional, national and international area has been cause worry in the world and specially in Africa and Middle East. The most important targets of economic desired and efficient management for calleting and inspection of water crisis are: improvement and promotion of collaboration of consumer for method of water allocation for consumptions that has more increased worth, achievement of water sources concrete management via manifesting and definition of specialized and general subdivisions, making capacity involving strength the nine of water management missing links like water revenue quality management, flood water management, native and endemic capacity. Sessile township that located between Garran high mountains, lands of its fertile plain irrigates by their river Kahman, Zaz and Honam (lops of Karkheh) that head springs from Garrin. But in spite of being plenty water sources, ratio of rain fed lands to irrigated land is 2 to 1 and average yield of rain fed wheat is 1-1.5 Ton per hectare. While each year go out millions meter³ of water with desired quality from accessible. One of the methods of increasing produce source efficiency is connecting of lands and using of modern methods of irrigation.

One of the most important profits of this practical way is possible of performance of mechanized methods usage in producing of agriculture productions. In developed countries, usage of mechanization is in order to decreasing costs but in developing countries usage of that is in order to increasing production per surface unit. The most important aims and it's usage are:

1. Increasing production, via increasing cultivated area and or increasing yield per surface unit. With connecting lands, both of the aims are obtainable, because on the one hand with increasing number and capacity of machines and also re-cultivation pf barren lands and disappearing borders, becomes certain increasing cultivated lands and on the other hand with improvement in machines work, accounting for usage of machines and increasing its accuracy on the basis of plant need and also improvement in irrigation quality, becomes certain increasing production on surface unit.
2. Decreasing costs, connecting lands and also use of modern ways of irrigation and usage of correct ways of mechanization jointly. Can has been plentiful decrease in costs and increasing income via decreasing labor power and doing on time operations. Increasing productivity is feasible via usage of whole machines capacity of machines.
3. On time performance of agricultural operations with regard to ecological conditions specially on planting and harvest production, prevents of plenty loss and injury. This work is possible with use of modern technology like increasing machines capacity and or combining them because in present conditions and on small and scattered tracts and without defined and distinct, investors capital in agricultural machinery part only in lien of receiving additional money, will be cline to consent to agronomical operations of rain fed lands.
4. Decreasing of agriculture work and increasing it's acceptability and attractiveness in concrete lands in which costs and incomes are distinct and transparent, will be identical.

In Sessile township in direction of land reform on 34 and afterwards and also considering lawful heirs land distribution per capita of agriculture land in this township has reached to 0.9 hectare and less.

In case of technical investing capital and trust and confidence of farmers for joint investing capital and assistance and going along with them till gaining result and then continued supervising on administered plan and project can during the midterm program can perform permanent production cycle.

Aim of this paper is explanation of put in practice of connecting lands method and it's benefits till in the shape of successful model of connection lands has had exact and scientific evaluation and become distinct weak and strength points and basis of that by researchers and clear-sighted plans a programmer for connection lands and improving of water productivity.

MATERIALS AND METHODS

For good explanation of connected lands and it's agricultural and economical accounting for usage of machinery (agronomical and irrigation) has proceeded to inspection of past records of Sessile township farmers after field study and inspecting of the subject, distanced that there are small and big examples of connected lands in the township area selecting the most successful and efficient of them could be suitable model for promotion and

substructureing. So a farmer was chosen that he had about 15 hectares of rain fed cultivated lands but in the mold of 25 Scattered pieces. First, explained farmer’s situation before connecting and production amount of main cultivated produce (rain fed barely or wheat) in alternation with fallow or grains and then the results were compared with after connecting and then cultivation plan with digging a deep well was reformed.

RESULTS AND DISCUSSION

Owner and discussion situation before connecting has shown on. Table 1 according to this table, cultivated main product by farmer in scattered pieces is a native variety that has been reposed on alternation wheat (barely)-rotation or wheat (barely)-grains and it’s average production per area unit was 1-1.2 Ton per hectare. After exchange of lands because has been explainable digging of deep well, centrifuge, plugging machines (a poison-sprayer) and classic rainy irrigation, were purchased neighboring hands and increased total his own lands to over the 40 hectares and were gathered together.

In table 2 has shown owner situation, cultivation plan, and average production after the connection. For permanent and observed proper agricultural alternation.

Heading

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Table 1. situation of farmer befor the connection of lands (befor 1372)

Average yield (Ton per hectar)	Kind of cultivated production	Area (hectar)	Number pieces
1.15	Rainfed wheat or barely (local)	0.85	5
1	“ “ “ “ “	1.3	3
1.08	“ “ “ “ “	0.35	11
1.2	“ “ “ “ “	0.5	6
1-1.2	Rainfed wheat or barely (local)	Total cultivated 15 areas	Total 25 pieces

Table 2

Average yield (Ton per hectar)	Kind of cultivated production	Areas (hectar)	pieces
-----	Frutiful orchard	1.5	1
5 picks	Alfalfa	6.5	2
6000	Wreat	8	3
3500	Barely	4	4
800 (with one complementary irrigation)	Pea	4.5	5
500	Local lentil	2.5	6
2000	Bean	8	7
600	lentil	5	8
	40 total cultivated area		90

REFERENCES

- Abdollahi M. 1998. System of productivity, the first edition, undersecretary of systems of productivity of ministry of agriculture.
- Azizi karimi M. 1997. Growth analysis of cultivated plants. Publications of Mashhad Jahad daneshgahi, second edition.
- Binam. 1996. Agriculture appearance of Selseleh township.
- Eslahi H. 2002. Instructional booklet; collection of rules and laws of land reform-lands affairs organization.
- Koochaki A. 1991. Physiological principles of growth and development of cultivated plants. Second edition, Astane ghodse razavi publications: page 404.