



مؤسسه تحقیقاتی و کتابخانه ملی و آموزش  
مرکز مدارک ملی

# اصلاحات ارضی و اقتصاد روستائی ایران

کتابنامه گزیده

تهیه و تنظیم از:

احمد میرزاده

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اصلاحات ارضی یکی از مهمترین رویداد های تاریخ معاصر ایران است. از آنجا که شناخت علمی این رویداد توجه بسیاری را بخود معطوف داشته است، انتشار راهنماهایی که بتواند پژوهندگان را بکار آید ضرورت بسیار دارد. کتابنامه ای که مرکز مدارك علمی بانتشار آن همت گماشته راهنمایی است به مقاله ها و کتابهایی که درباره اصلاحات ارضی و اقتصاد روستائی ایران بزبانهای مختلف نوشته شده است. بسیاری از آنها در اصل به انگلیسی نبوده و تنها عنوان و یا چکیده آنها به انگلیسی برگردانده شده است. جمع آوری منابع مندرج در این کتابنامه با مراجعه به نشریات خارجی موجود در این زمینه صورت گرفته، اما گرد آورنده بذکرگزیده این مآخذ بسنده کرده است.

برای تفکیك موضوعات مختلف از یکدیگر از شماره های طبقه بندی U.D.C استفاده شده است و عناوین تحت یک شماره طبقه بندی بر حسب حروف الفباء نام مولف مرتب شده اند. اطلاعات کتابشناسی هر عنوان بجز مقالات، با نام خانوادگی مولف شروع میشود و سپس نام کوچک، عنوان، محل نشر، ناشر، سال انتشار و دیگر مشخصات لازم ذکر شده است. در صورتیکه سازمانی اقدام به انتشار نشریه ای کرده باشد از نام سازمان بعنوان معرف اصلی یاد شده است. در مورد مقالات مجلات، بعد از نام مولف، عنوان مقاله و سپس نام مجله و دوره و شماره آن ذکر شده است. برای تمیز دوره از شماره، شماره ها در داخل پرانتز نوشته شده اند.

این کتابنامه دارای دو فهرست مولف و موضوع است. شماره های مقابل هر يك از اسامی یا موضوعات شماره ترتیب عناوین است. برای سهولت استفاده از فهرست موضوعات، از ارجاعات "نگاه کنید" و "نیز نگاه کنید" استفاده

شده است °

از آنجا که این مجموعه کلیه مطالعات انجام شده در زمینه اصلاحات ارضی و مسائل روستائی ایران را شامل نیست لذا از کلیه محققان و افرادی که دست اندر کار پژوهش این قبیل مسائل هستند تقاضا می شود که با راهنمایی و ارسال مدارکی در این زمینه امکانات عرضه هر چه کاملتر این مجموعه را در آینده فراهم آورند °

قسمتی از مدارك معرفی شده در این کتابنامه در کتابخانه مركز مدارك علمی موجود است و تهیه سایر مدارك در دست اقدام میباشد °  
لازم به یاد آوری است که بزودی فهرستی از مطالعات انجام شده در همین زمینه بزبان فارسی منتشر خواهد شد °

احمد میـــــــــــــــــرزاده



*Institute for Research and Planning in Science and Education*  
*Iranian Documentation Centre*  
*(IRANDOC)*

**land reform and rural  
economy in iran**  
**selected bibliography**

**compiled by:**  
**ahmad mirzadeh**

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## Preface

Land Reform is one of the most important events in the contemporary Iranian history. Since there are many people interested in studying the various aspects of this event, it is necessary to publish bibliographies which may be useful for investigators.

The present bibliography provides a guide to books and articles on the Land Reform and Rural Economy in Iran. Titles of articles and books in languages other than English appear in English in brackets, and their abstracts, if any, are given in English translation.

It seems necessary to mention that this bibliography does not cover the whole range of writings on the Land Reform and Rural Economy in Iran and the compiler has been rather selective.

Subject arrangement is by UDC. Bibliographic information begins with the author's surname which is followed by his christian name, title of the book, place of publication, publisher, date of publication, etc. If the publisher is a corporate body its name is used as the main entry. In the case of those articles which have been published in periodicals, the title of the article, the title of the periodical, its volume and issue appear after the author's name. The issue, to be distinguished from the volume, comes into parentheses.

To facilitate use , this bibliography contains an author index and a subject index. "See also" and "See" **references**

are frequently used. The numbers in front of each item in the indexes refer to the consecutive numbers of the entries.

Some of the documents which appear in this bibliography are available in the library of the Iranian Documentation Centre and the Centre is trying to receive the others.

A bibliography of documents in Persian in the same field will appear in print in near future.

Ahamd Mirzadeh

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## RURAL SOCIOLOGY

301:63

1. Ono, M. "On socio-economic structure of Iranian villages with special reference to deh." Developing Economies, 5(3), 1967 , 446-62

301:63:308

"The basic structure of land tenure in Iran is ownership of whole villages (dehs) by a landlord (malik) receiving payment in kind or labour for the use of his land. The historical development of the system from communal settlements and its structure are described in detail. It is expected to survive agrarian reform in a disguised form, since the general attitude of the people favours a dictatorial leadership. Absentee maliks may lease out their managerial rights or appoint one of the tenants as their representative. Tenants may work their own farm or be compelled to work in groups on farms either permanently allotted to them or annually reallocated. The malik controls the whole life of the village and assigns non-agricultural jobs to those without cultivation rights.

2. Rambaud, P., et al. "Contribution a une sociologie villageoise." [Contribution to a village sociology.] Com-

munautes, (26), 1969, 188

301:63:334.6

"In the nine articles contained in this special issue of the journal, French examples are used to portray the village as a social unit and in its function for the total social system. This is followed by a sociopsychological study of those factors promoted by a co-operative attitude. Experiences with the development of rural advancement on Congo, Upper-Volta, the Central African Republic and Iran are then described."

3. Sternberg-Sarel, B. "Tradition et developpement en Iran: les villages de la plaine de Ghazvin." [Tradition and development in Iran: villages of the Ghazvin plain.] Etudes rurales, (22,23,24), 196 , 206-18  
301.107:63:338

"The Ghazvin region has undergone dramatic changes since the 1962 earthquake, after which it was established as an experimental area for a twofold development plan for (1) irrigation and agricultural reconstruction and (2) education. The village social structure and traditional hierarchy of authority are outlined as a background to discussion of that imposed by the "revolution blanche". Consideration of the limitations of the plans as put into effect indicate that for greater village co-operation and

confidence, more account should be taken of traditional systems, and village opinion consulted on needs and wishes."

4. Bath, F. "Capital, investment and the Social structure of a pastoral nomad group in south Persia." Capital, saving and credit in peasant societies. London; Allen & Unwin, 1964, 69-81  
301.112.2:63:332.67

"From data collected in 1958 some aspects of the economy of the Basseri tribe of Fars (15,000 to 20,000 pastoral nomads) are analyzed. It is shown how certain elementary characteristics of capital in the form of herds are related to a limited range of features of family organization, social homogeneity within camps and common saving and consumption patterns, granted certain cultural values and conceptions held by the Basseri people. The characteristics of pastoral capital, as discussed in this paper, are of a type familiar in conventional analysis but appear in this community still in an elementary and rough form."

5. Salzman, P. C. "National integration of the tribes in modern Iran." Middle East Journal, 25(3), 1971 , 325-336.  
301.165.12:63:347.7

"There is estimated to be a tribal population of three million in Iran living a nomadic, or semi-nomadic pastoral life. The tribal system is considered an impediment to national development. However, with the need to maintain pastoral resources it is thought that: (1) marginal environments must be given a more reliable forage production base with improved distribution, storage and animal health facilities as well as with the introduction of new strains of livestock, and (2) credit, marketing and transport facilities must be made available to redirect the pastoral economy away from subsistence levels to a market orientated economy. Such a development, it is envisaged, would check deterioration of environment as overstocking and overgrazing--the chief characteristic of subsistence pastoralism--would decrease"

## LAND REFORM

333.013.6

6. Arfa, H. "Land reform in Iran." Journal of the Royal Central Asian Sociology, 50(2), 1963, 132-137  
333.013.6
7. Hobbs, J. H. "Land reform in Iran, 'a resolution from above'" Orbis, 7(3), 1963, 617-630  
333.013.6
8. Kristjanson, B. H. "The agrarian-based development of Iran!" Land economics, (1), 1960, 1-13  
333.013.6

"Examination of land reform as it has evolved in one of the most promising economies in the Middle East; Iran. Present indications are that most lands will be distributed in the next decade. The tenure pattern: ke characteristics. Whey capital formation on the land through tenancy is very low. Capital formation and productivity.

Distribution of Crown and public domain lands. Land distribution in Iran was first undertaken under the leadership of the Shah. Distribution of private lands. Lessons from crown lands experience. Discussion of the problems encountered. Organizational approach for a national distribution program. Allotment of economic farm units. Establishment of farmers cooperatives. Financing the program.

9. Land, C.'T. Landreform in Iran. Amsterdam, Sociographisch Instituut, 1966, 44p.  
333.013.6
10. Okazaki, S. "Shrirang-sofla: the economy of a North East Iranian village" Developing Economies, 7(3), 1969, 261-83  
333.013.6
11. Platt, K.B. Land reform in Iran. vol II. 2nd ed, Wasington, D.C.: Agency for International Development Department of State, 1970, 101p.  
333.013.6

"The Iranian national land reform programme which became effective in early 1962 was an outgrowth of long efforts toward change in a pattern of land ownership and use rights which had stagnated agricultural production and created severe maladjustment of social and political structures. The reform originally treated redistribution of land rights as the key element in (1) removing undue political and social power from the landlord class, (2) improving the social and economic status of the peasant class, and (3) achieving increased agricultural production by encouraging increased farm level capital and labour inputs. These objectives have been supported by organizing a peasant farmers' co-operative structure, supplying enlarged production credit, and extending improved genetic stocks and technologies to farmers. The reform has gone through two stages: (1) Expropriation and distribution of lands in excess of one village per owner; (2) expropriation and distribution of lands within a one-village limit that were in excess of prescribed hectareage limits, with the remainder then either (a) leased to tenants for 30 years; (b) sold to tenants; (c) tenant use rights bought by landowners; (d) divided with tenants on former crop-share ratios, or (e) pooled with tenants into jointly managed farm units. Two further stages are in process: (3) conversion of 30-year leases to peasant ownership, and (4) conversion of distributed peasant ownerships into large farm corporations for the sake of more rapid and efficient physical reorganization and use of land and water resources. Results from the first two stages have been satisfactorily positive; the third and fourth stages have not

progressed far enough to be evaluated. A large majority of all peasant farmers have benefited directly from the reform thus far, but the fourth stage seems to be a reversal of individual benefit for sake of gains thought to be available through large-scale mechanization.

12. "The age of the rural labour force and land reform."

Tahqiqat Eqtesadi, 7(18), 1970 , 83-8

333.013.6:331.05

"It has been suggested that in Iran land reform has had a more beneficial effect on older people and it is something of a paradox that younger people in rural areas are less responsive to social changes than older ones. The person legally entitled to benefit under the terms of land reform, is 'the person who does not own land but who, being in possession of one or more factors of production, either alone, or in conjunction with members of his household, directly farms the landlords' land and gives part of his product to the landlord', the implication being that such a person is normally head of the household and generally the oldest member. The young, in effect, provide the bulk of the rural labour force and obtain no benefits.

13. Lipski, W. "Przeobrażenia rolnictwa irańskiego.[Changes in Iranian agriculture.] Wies współczesna,3(6) 1968, 86-100

333.013.6:322.325

"Changes occurring in Iranian agriculture are described with particular attention to inter-regional differences. The social stratification in rural areas, the land tenure system, the land reform and its consequences are discussed in detail. The political influence of the stratum of rich peasants created by the land reform is considered.

14. Whetham, E.H. Co-operation, land reform and land settlement--report on a survey in Kenya, Uganda, Sudan, Ghana, Nigeria and Iran. London, Plunkett Foundation for Co-operative Studies, 1968, xi-79p.

333.013.6:334.6

15. Ward, G.H. "Farmers co-operatives under land reform in Iran. Indian Co-operative Review, 3(2) 1966, 865-72

333.013.6:334.6:631

"The paper describes the new structure of farmers' co-operatives in Iran following the enactment of the land reform law in 1962, and the progress achieved in terms of

the number of co-operatives set up, numbers enrolled, loans advanced and multi-purpose functions undertaken up to the end of September 1965. The role of Bank Omran in fostering the growth of co-operatives is also briefly discussed. The central organization for rural co-operatives was given the responsibility for fostering and supervising co-operatives, providing loan funds and developing of supplies and marketing of farm products. Some of the important problems and difficulties faced by the co-operative movement in Iran are briefly enumerated.

16. "An analysis of the law governing the first stage of land reform in Iran." Taqiqat Eqtesdi, 7(17), 1970, 49-74

333.013.6:351

"Land reform began with the 1961 Act. The Land Reform Council is empowered to issue directives to remove any anomalies which may arise. Reform has created a new set of legal relations in Iran, which represents a major attempt to initiate social change by law. The aims of land reform are discussed in detail showing economic targets, social goals and political objectives. The various institutions which execute land reform legislation are dealt with, pointing out legal exceptions and exemptions, land purchasing rights and persons entitled to receive land, etc.

17. Ajdari, A. "Les Conditions de la reforme agraire en Iran. [The conditions of the agrarian reform in Iran.] Developpement & Civilisations, (22), 1965, 37-46

333.013.6:63:338

"The land tenure system has always been the main obstacle to agricultural development in Iran. Before 1962 the large landowners held 65 per cent. of the arable land and 55 per cent. of the villages. The living standard of the peasants is one of the lowest in the world. Carrying out land reform schemes is hampered by the fact that the khatat irrigation system is in the possession of the large landowners, and by the absence of a land register. Consequently, limitation of landed property had to be based on the traditional unit of the village. The evolution of land reform is discussed in considerable detail; it is still far from being completed, and it is not yet possible to present an evaluation of its influence on agricultural development"

18. Gharatchehdaghi, C. Distribution of land in Varamin. An opening phase of the agrarian reform in Iran. Opladen, C.W. Leske Verlag, 1967, 179p.

333.013.6:63:338

"A detailed examination is made of the distribution of the land from 12 villages in the region of Varamin

and of the effects of this early re-distribution (1952). Part I analyses the development of agrarian policy in Iran since 1900; and Part II examines the main socio-economic effects of the re-distribution in 1952-64."

19. Delavalle, J.P. "La reforme agraire en Iran.[The Agrarian reform in Iran] Orient,7(28),1963 , 37-54  
333.013.6:63:338
20. Denman, D.R. "Land reform in Iran."Part 1&2. Agriculture, 77(8)(9),1970,384-6;436-8<sup>436-8</sup>  
333.013.6:63:338

"Land reform in Iran began with a royal decree issued in 1957 under which more than two thousand villages and individual farms in the ownership of the Shahanshah were assigned to the cultivators of the soil and the land distributed among them. The lead was followed by the government but not by the owners of private land or those who held land for religious and other purposes. The private lands, nevertheless, lay at the centre of the land reform problem, socially, economically and politically. It was apparent that if Iran was to have land reform on a truly national scale, the legislature and government would have to promote a policy of compulsion. Legislation which was to become the foundation for the effective land reforms

of Iran passed into law in January 1962. A landowner was permitted to retain one entire village (shesh-dang). A man who owned more than one village or proportions (dang) of a number of villages could hold his permitted lands in more than one of the villages, but only to the extent that the scattered portions did not in the aggregate exceed the equivalent of a shesh-dang village. Land in excess of the maximum permitted to a landowner was compulsorily acquired by the Ministry of Agriculture who subsequently passed the title to those cultivators and sharecroppers entitled to it under the law. Landowners were compensated by a purchase price calculated according to a specific formula, paid as an initial cash payment with the remainder in instalments over 15 years. Payment for the land by the peasant reflected the price paid for it by the government and was spread over 15 years. The Second Phase followed the passage of an amending law later in 1962 and its focus was upon the villages retained by the landowners under the First Phase. By June 1967, the reforms of the Second Phase had stabilized and clarified the position of 2,457,982 farming families. In a Third Phase inaugurated since 1968, the landlords have been called upon to surrender what a few years previously they, with good reason, might have regarded as government recognised proprietary rights. Other important aspects of the land reform are the critical role of rural co-operatives, cultural houses and social insurance, farm corporations and a rural research centre."

21. Eghbal, D. Agrarreform im Iran.[Agricultural reform in Iran.] Erlangen-Nurnberg, Friedrich-Alexander-Univ, 1969, 276p.

333.013.6:63:338

"This doctorate thesis begins by an account of the general economic and political development, population and natural conditions in Iran, and goes on to present a detailed account of the physical, economic, social and structural conditions of farming and the special problems of particular agricultural products (wheat, sugar-beet and cane, vegetables, fruit and nuts, tea, tobacco, silk, cotton, jute, oil plants, livestock etc.) Part C. examines methods and means of improving agriculture and examines the effects of land reforms since 1962 in detail. The final Part D. discusses future plans for modernizing Iranian agriculture and society!"

22. Lambton, A.K.S. The Persian land reform 1962-1966. Oxford, Oxford University Press, 1969, Xii+386p.

333.013.6:63:338

"A comprehensive description of the changes brought about in Persian agrarian structure as a result of recent land reform measures is provided against a background of prevailing social, tenurial and economic conditions. The analysis first provides a descriptive ac-

count of the land and people, 80 per cent. of whom derive their living from agriculture. Chapter III presents the legal provisions of the land reform law 1962. Following chapters describe the opposition to reform measures until their final implementation through successive stages. The part played by co-operatives is also described. Finally the achievements, problems and future trends are considered. A postscript adds an account of more recent developments post-1968. The success of land reform has undoubtedly been considerable. A significant proportion of the total cultivated land has been transferred to the peasants. The social and political power of the landlords has been broken. But many problems still remain. More irrigation and efficient control of water resources is required. There are still inequalities in land distribution, especially among the poor classes. But above all, the achievements of land reform are best expressed in the new sense of purpose, independence and self-reliance of the peasants and the strengthening of rural co-operation.

23. Malek, H. "Apres la reforme agraire Iranienne." [After agrarian reform in Iran] Annales de Geographie, 75(404), 1966, 268-285  
333.013.6:63:338

24. Mendras, H. "La reforme agraire en Iran." [The agrarian reform in Iran] Revue tunisienne des sciences sociales, 2(2), 1965, 9-20  
333.013.6:63:338

25. Turri, E. "l'Iran e la riforma agraria." [Iran and the agrarian reform.] Comunita, 19(126), 1965 , 24-30  
333.013.6:63:338

26. Valian, A. Implementation of land reform in Iran. Rome, FAO, 1966, 8p.  
333.013.6:63:338

"Land reform in Iran was initiated in 1951 with a royal decree for the distribution of Crown lands among the peasants, based on cadastral surveys and maps. This was followed by various other measures leading up to the Land Reform Law of 1962 under which the present land reform programme of Iran is being carried out. The completion of the first stage of the reform was announced in October 1963, and in February 1965 the second phase was begun and is still in process of implementation.

27. Ehlers, E. "Nordpersische Agrarland-schaften, Landnutzung und Sozialstruktur in Ghilan und Mazanderan. [North Iranian agrarian landscapes" Land use and social structure in Ghilan and Mazanderan.] Geographische Rundschau, (9), 1971, 329-342  
333.013.6:63:338:308

"The southern, horseshoe-shaped coastland of the Caspian Sea, an area approximately 650 km. long and 1 to 50 km. wide between the Elburz mountains and the Caspian Sea is examined. Rice growing in the lowland plains from the Russian border into the N.W. the middle of the area, and a cotton-wheat rotation practised in the eastern part of the region are discussed. Social structure and land reform are treated and illustrated with examples. Prospects for agricultural production in the area are mentioned."

28. Scarcia, G. "Governo, riforma agraria e opposizione in Persia." [Government, agrarian reform and opposition in Persia.] Orient Moderno, 42(1011), 1962, 731-801  
333.013.6:63:338:351
29. Kljukin, B.D. "Agrarnoe Zakonodatel'stvo i Agrarnaja Reforma v Irana." [Agrarian Legislation and Agrarian reform in Iran.] Vestnik Moskovskogo Universiteta, 21(2), 1966, 70-77  
333.013.6:63:338:351.82

## AGRICULTURAL CO\_OPERATIVES

334:63

30. Digby, M., & McCready, K.J. Yearbook of agricultural co-operation 1970. Oxford, Basil Blackwell, 1970. 280p.

334.6:63

The following papers are included: Co-operation in the Commonwealth, 1970 (M. Digby); Co-operation as a commercial, social and political development (K.F. Svardstrom); Course on credit and marketing for developing countries. A comparison of marketing structures for agricultural produce in developing countries (E. H. Whetham); Some political aspects of central co-operative organizations (J.A.E. Morley); Raiffeisen and the "Third World" (W. Schiffgen); British government assistance to co-operatives in developing countries (B. J. Young-johns); How the U.S. Department of Agriculture assists in international co-operative development (H.W. Bradford); A report on the Confederation of European Agriculture Meeting at Helsinki 1969 (M. Digby); The structural problems of agricultural co-operative (I.F.A.P. Study Session, 1969) (K.J. McCready); Co-operation in the age of the super-market (Y. Don); The agricultural co-operatives in Austria--their development in recent years (F. Reinthaler); Danish agricultural co-operatives in a changing world (A.P. Pedersen);

The structure of Finnish agricultural co-operation (A. Luhtala; Towards a new co-operation, some significant facts about the evolution of agricultural co-operation in France (E.H. Thomas); Raiffeisen co-operative in Germany (W.Schiffgen); Centralized accountancy service of the S.A.O.S. Ltd. (W.R. Cartwright); Agricultural co-operation in the United Kingdom, England, Agricultural Co-operative Association, Ltd. Northern Ireland, Ulster Agricultural Organisation Society, Ltd. Scotland, Scottish Agricultural Organisation Society, Ltd. Wales, Welsh Agricultural Organisation Society, Ltd. United States Agricultural co-operative statistics 1967-68, Farmer Co-operative Service. The problems of co-operative development in Venezuela (J. M. Texier); Co-operatives and literacy in Ecuador (T. Eastwood); The Agricultural Co-operative Movement in Argentina (D.O. Cracogna); The importance of co-operative industries to Australian primary production (W.Kidston); Co-operative fruit marketing in New Zealand (A.C. Greer); Rural co-operation in Iran. Agricultural co-operation in South Africa--the problems of economic development (S.W.Chater); Co-operative movement in Nigeria (A.A. Laditan); The co-operative Movement in Upper Volta (G.Gosselin); Co-operation in some developing countries. Botswana. British Honduras. The British Solomon I lands. Dominica. Hong Kong. Kenya. Lesotho. Mauritius. New Hebrides. The rise of American co-operative enterprise: 1620-1920 (J.G.Knapp), Review by M. Digby; Select bibliography of co-operation, supplement 1970 (A.C.Stewart)!"

31. Inayatullah. Cooperatives and planned change in Asian rural communities: case studies and diaries. Geneva, UN Res. Inst. Social Dev. 1970. vii+ 349p.

334.6:63

"Four case studies are first presented: (1) introducing technological change through co-operation in Nakinagar, an East Pakistan village (S.A. Rahim); (2) co-operation under extreme traditionalism and unfavourable physical conditions: Jangla, an East Pakistan village (A. Hoque); (3) co-operation under partriarchal authority: Rehmanpur, a West Pakistan village (Inayatullah); and (4) introducing a co-operative in Shah Abad, a conflict-ridden village in Iran (C.Auroi). Part II contains four diaries entitled: (i) Vatagama, a Ceylonese village where the co-operative did not succeed (H.K.J.R. Bandara); (ii) co-operation in a new settlement: the co-operative of Handadawa village in Ceylon (S. Bulankulame); (iii) co-operation in a caste-bound village: the co-operative of Sampadu in Ceylon (S. Pasupathipillai); and (iv) Huluganga: a Ceylonese village where the co-operative worked (R. Muthukuda)!"

32. Klayman, M.I. The Moshav in Israel. A case study of institution-building for agricultural development. New York, Praeger publishers, 1970. xv+371p.

334.6:63

"The Moshavim, or small landowners' co-operatives where production and consumption decisions are the responsibility of the individual farmer, whereas purchasing, selling and other services are handled co-operatively, represent about 42 per cent. of all agricultural settlements in Israel. The basic purposes of this study are: (1) to construct a model of the moshav; (2) to analyze its success; (3) to analyze the process by which it has been built as an institution; (4) to examine the applicability of the moshav or a modification thereof for the development of agricultural sectors of underdeveloped countries. The generalized model of the moshav represents a macro-level picture of the institution including its goals, structure, functions and interdependencies. It also includes an analysis of the organization, guiding principles and functions of supporting institutions, particularly the national and regional supporting co-operatives attached to the General Federation of Labour, the Jewish Agency and the Moshav Movement. The study also includes an analysis based on sample empirical data of the factors affecting members' net incomes, to determine how much incomes are affected by the moshav as an institution, and how much by factors external to the moshav and supporting organizations. An analysis is included of the extent to which the development of the member as a successful farmer can be attributed to the moshav as an institution. Using empirical data, farmers' production plans and their implementation are compared to ideal or optimum plans, assuming perfect rationality, and the role of the moshav is examined to the extent it helped achieve the

ideal goals or acted as a constraint. The analysis of the process by which the moshav has been built as an institution is conducted at two levels. One is a macrohistorical review of agricultural settlement in Israel, with emphasis on the co-operative section in general and the moshav and its linkages with other types of settlement in particular; the other represents a microhistorical analysis of a small sample of both the moshav ovdim and the moshav olim. The application of moshav principles to the agricultural development of other countries evolves from the results of the analyses of the factors contributing to the success of the moshav and the process by which it developed as an institution. A number of critical success factors are developed and analyzed as to their particularity to Israel. The flexibility of ability of critical success factors are examined in the application of moshav principles to the specific cases of Venezuela and Iran!

33. Bidarmaghz, S. Steigerung und Rationalisierung der Agrarproduktion im Iran mit Hilfe kooperativer Massnahmen.  
[Rationalization and improvement of agricultural production in Iran through co-operative measures.] Giessen, Univ. Landw. Fak, 1970.

334.6:63:338

"The re-organization of the agricultural production factors in three south Irani villages (93 farms) and its

effects on the success of the farms is described. Part I is concerned with the natural and socio-economic conditions in Iranian agriculture and with the agricultural and economic situation. Particular attention is paid to the special circumstances of the area under study. In Part II the effects of the present structure and situation are considered. Measures are suggested for the improvement and rationalization of agricultural production. A model for a production co-operative is developed as it is put forward that economic success in agriculture in Iran can only be achieved through co-operation"

34. Ule, W. "Die landwirtschaftlichen Aktiengesellschaften im Iran." [The agricultural limited company in Iran.] Vierteljahresberichte, 40, 1970, 169-87  
334.6:63:338.6

"The aim of setting up agricultural companies in Iran was to encourage collective farming. The share-holders, i.e. the farmers, supply capital in the form of land, machinery, equipment, buildings and irrigation facilities. Each receives shares related to the value of his contribution. All aspects of cultivation are then controlled by the company which buys, sells, obtains credit, pays taxes, etc. The companies are also intended to modernize farming by introducing large production units and mechanization and preventing further fragmentation. There is no intention to reduce the labour force, but rather to raise

incomes by more efficient methods of farming. Shareholders can withdraw from the company by selling their shares either to another farmer or to the company itself. Although these share companies have considerable advantages over co-operatives where large investment in irrigation and improvement are required, the 15 companies so far formed are not likely to provide a general model for development. They are more likely to be restricted to a limited number of specialized branches while leaving wide opportunities for individual peasant holdings!"

## RURAL ECONOMY

338:63

35. Andrianov, V. "Sel'skoe hozjajstvo Irana" [The agriculture of Iran.] Ekonomika sel'skogo hozjajstav, 33(11) 1962, 115-119
- 338:63
36. Demin, A. I. Sel'skoe hozjajstov soramennogo Irana [Agriculture in Present day Iran.] Moskva, Nauka, 1967. 227p.
- 338:63
37. Johnson, V. Webster, "Agriculture in the economic development of Iran" Land economics, (4), 1960, 313-322

338:63

"The paper centers around the place of rural institutions in the economic development of the agriculture of Iran. It is stated that rural institutional changes are

a necessary part of the take-off for substantial, progressive growth of the economy of Iran. Aims of economic development. Investments in agriculture versus other purposes. Some land and human resource development problems. It is a fact that, if the level of agricultural production in Iran is to be increased, large amounts of capital investment in agriculture are necessary. Some of the physical and quantitative considerations for program: land resource inventory, changes in land uses and new practices, quantitative measurement. For illustrative purposes three institutional changes are considered: land reform, agricultural credit and expanded extension and community educational programs"

38. Khatibi, N. "An analysis of Iranian agriculture production 1960-1966" National and regional agricultural development policy, Ankara, Cent. Treaty Orgn (CENTO) 1968, 63-86  
(CENTO Conf. held Istanbul, Turkey, Sept. 11-16, 1967)  
338:63

"The significance of the agricultural sector within the national economy is outlined: although the total value of agricultural products increased in 1960-66 the ratio to gross national product decreased from 27 per cent. to 26 per cent.; agriculture employs 47.6 per cent. of the labour force, and rural population is 61 per cent. of total population; total investment in crop

cultivation was estimated at Rls. 68,061 million in 1965. Factors causing changes in production were completion of irrigation projects which expanded cultivable land by 400,000 ha., increasing numbers of farmers' co-operatives (6,066 in 1965), and measures to improve marketing. Changes in policy measures affecting production were (1) implementation of the Land Reform Law which revolutionized land tenure arrangements; (2) establishment of farmers' co-operatives; (3) substantial increase in the capital of the Agricultural Bank, mostly used for short-term loans. Data on production, consumption, import and export of the major commodities during 1960-66 are tabulated with brief commentary."

39. Refahiyat, H. Möglichkeiten zur Verbesserung der Agrarstrukturim Iran unter Berücksichtigung der bisher durchgeführten Massnahmen. [Possibilities of improving the agricultural structure in Iran taking account of the measures carried out so far.] Giessen, Landwirtschaftliche Fakultät: Universität Giessen, 1970. 165p.

338:63

"After a short description of the characteristics of Iranian agriculture and the factors of agricultural production and marketing, the measures introduced up to now to improve agricultural structure are critically reviewed under: motives, implementation and results of land reform;

setting up and functions of agricultural co-operatives; water resources; principles and legal basis of agricultural corporations, comparison with co-operative farms; recultivation and new cultivation of land, settlement, land productivity; transport conditions; forestry; planning and carrying out the building of new infrastructure; rural development projects; settlement of nomads; introduction of agricultural training stations and an advisory service. The critical analyses of detailed points are accompanied by special recommendations for future action. The paper is based on material collected by discussion, investigation, and questionnaires in Iran in 1968"

40. Sahebdjan-Bunodiene, C. "L'agriculture en Iran" [Agriculture in Iran.] Orient, 6(21), 1962, 33-47

338:63

41. "A study of the rural economic problems of East and West Azarbaijan" Tahqiqat Eqtesadi, 5(13/14), 1968, 149-238

338:63

"The survey covered 30 villages, the purpose of which was to evaluate changes in the past 10 years and the effects of land reform. East Azarbaijan covers 7,368,300 ha.

of which 26 per cent. approximately is under cultivation. The population is predominantly engaged in rural occupations. West Azarbaijan covers an area of 3,539, 100 ha. of which 14 per cent. is under cultivation. Since land reform 204 rural co-operatives have been formed and 101 others are in the process of being built up in East Azarbaijan whilst about 45,401 farmers are members. Results of this survey for several villages are presented in detail"

42. "A study of the rural economic problems of Khorasan and the Central Ostan" Tahqiqat Eqtesadi, 6(15/16), 1969, 149-232.

338:63

"A detailed survey of more than twenty villages in the area is presented, and comparisons are made with the situation prior to the 1961 land reform programme"

43. "A study of the rural economic problems of Sistan and Baluchestan(Iran)" Tahqiqat Eqtesadi, 7(19/20), 1970, 140-6

338:63

"Of the total land area of 17,783,200 ha., 128,840 ha. is under cultivation. The overall population of both

areas is 428,363 of which 91.3 per cent. is rural. Efficient farming is hampered by the small size and scattered location of holdings; the average size of plots does not exceed 3.67 ha. Out of a total of 74.931 ha. under crops, 51.15 per cent. is devoted to wheat, 17.84 per cent. to barley, 4.13 per cent. to rice and 26.85 per cent. to millet, maize, oil seeds and vegetables. The most important perennial crop is date palm; in 1960/61 54,999 tons of dates were harvested. Livestock production is not practised to any great extent and even animals for ploughing or transportation are usually hired. The main impediments to progress remain as lack of government direction in planning and establishment of communications"

44. "A survey of the rural economic problems of Hamadan and Kermanshahan" Tahqiqat Eqtesadi, 7(17), 1970, 75-137  
338:63

"A detailed survey of the area is presented. Each of the villages analyzed have changed considerably since initial land reform in 1961"

45. Mendras, H.; Tavernier, Y. Terres paysans et Politique.  
[Peasant countries and policy.] Paris, Soc. Etud.  
Documn Econ. Ind, Socialos, 1969. 608p.  
338:63:323.325

"Part I considers the nature and means of analysis of peasant revolt (M. Gervais, H. Mendras, C. Servolin and Y. Tavernier) and Part II contains national studies: (1) France: structural reform or price policy? (C. Servolin and Y. Tavernier); (2) the United States; agriculture without a peasant class (S. Berger); (3) the Netherlands: possibilities and limits of individual mixed crop and livestock farms (G. Rimareix); (4) the USSR: from village community to agricultural cities (B. Kerblay); (5) Polish rural areas and their future (B. Galewski); (6) Hungary: are reforms over? (C. Servolin, M. Gervais, and A. Lopes-Cardoso); (7) the German Democratic Republic: collectivized agriculture in an industrial society (M. E. Handman-Xifaras); (8) White revolution in the Iranian countryside (B. Sternberg-Sare1); (9) Mexico: the ejido and the individual peasant (R. S. Avenhagen); (10) Oligarchical power and agrarian reform in Peru (H. Favre); (11) The experience of the People's Republic of China (C. Bettelheim); (12) The important lessons of Cuban agricultural policy (M. Gutelman)"

46. Beheshti, M. "Die Agrarverfassung und die sich daraus ergebenden perspektiven für die Entwicklung eines landlichen Genossenschaftswesen in Iran" [Agrarian Structure in Iran and its Effects on the issue of the Prospect for Development of an Agricultural Cooperative System.] Berichte unter Landwirtschaft, 39(2), 1961, 338-361  
338:63:334.6

47. Stephanides, C.S. "Drive toward modernisation aids farming in Iran" Foreign Agriculture, 5(31), 1967, 6-7

338:63:334.6:334.2

"In the last 16 years, Iran has made great progress in agriculture despite a land reform programme that had been expected to curtail production. During this period the government established the Agricultural Bank and agricultural co-operatives to replace the landlords in their traditional role as creditors. Credit became easier to get, terms were better, and farmers were not only more able but also more willing to make long-term investments in agriculture. One of the most important factors in the changing production pattern has been the many thousands of technicians trained in the USA, elsewhere abroad and in Iran. This investment in higher education has already led to improved research and education, better organized government services, and more up-to-date agricultural practices. Much of the foundation stock--seed and live-stock-- has come to Iran from the USA. But Iran still has to import about 10-15 per cent. of its breadgrains, 15 per cent. of its feedgrains, 60 per cent. of its vegetable oils, 20 per cent. of its livestock and dairy products, 70 per cent. of its sugar, and 44 per cent. of its tea. Most fruits and vegetables also are not produced in sufficient quantities to meet the growing demand. The country does, however, export large quantities of cotton, pistachios and other nuts, raisins, dried apricots, hides and skins, wool, and carpets. Iran is better equipped than

most other countries to meet its food deficiencies. It has the resources and the people to do the job. However, the long distances between areas of production and centres of consumption make transport very costly; and there is still a lack of sufficient long-term credits, of trained technicians, and above all of highly trained farmers. population growth, estimated at 2.8 per cent. per annum, and increased purchasing power of the masses will delay catching up with the demand"

48. Noori, H. M. "Economic analysis of alternative pricing systems for water resource projects with particular emphasis on Iran" Diss. Abstr. 26(4), 1965, 1955-6  
338:63:338.5:627.1

"The purpose of this study is to clarify some of the complexities which exist in selecting a correct pricing system for water, in determining the effects of such a pricing system on various assumed goals, and in evaluating and comparing each of the alternative pricing methods. Three alternative pricing systems were selected: (1) single price pricing system, (2) multiple or discriminatory price pricing system and (3) price less than competitive price. Six goals were assumed: (1) maximizing government revenue; (2) minimizing the amortization period; (3) creating a continuous source of income for economic development programmes; (4) maximizing the output of agricultural products; (5) maximizing the gross national product and the

rate of growth of the economy and (6) allocating water (a) within agriculture and (b) between agriculture and industry. In addition to the above six goals, attention was also focused upon land values. In analyzing the effect of a single price pricing system on the goals, two cases are considered: (1) prior to construction of the dam and (2) after the dam has been constructed. Three levels of prices were assumed; namely, a single high price, a competitive price, and a price less than competitive price. In studying the effect of the discriminatory prices are taken into account. It was assumed that price was proportional to (1) the marginal value productivity of water, (2) the quantity of water used and (3) the distance from the dam. The influence of these three discriminatory prices on the goals was examined. Finally, the effect of a price less than competitive price with respect to the goals was considered. If there is a problem of shortage of food, a low price for water is the most desirable in order to maximize food output. In other circumstances a multiple or discriminatory price based upon marginal value productivity of water is preferred. Some from of discriminatory price will maximize government revenue, reduce the amortization period to a minimum, create the largest continuous source of income for economic development programmes and maximize gross national product.

49. LeBaron, A.; Mohtadi, M.M.; Beutler, I.F. Long-term projections of supply and demand for selected agricul-

tural products in Iran. Utah, Utah Agricultural Experiment Station: Utah State University, 1970. xxii+364p.

338:63:380.11

"This research sought to estimate import and export requirements of major crop and livestock products and the outlook for Iranian markets in 1975 and 1980. The major needed improvement in Iran's agricultural industry is for better markets, marketing channels and policies. Grading, processing, distribution and waste reducing methods all need to be improved; producer incentives are lacking. There has been over concentration on measures to obtain higher production and a lack of attention to effective marketing development programmes. Domestic transport and other marketing costs are high and, in fact, primary crop production costs are certainly not low. The ultimate physical barrier to increased crop output is lack of irrigation water. Except for meat production, Iran probably has the physical resources to become self-sufficient agriculturally. This condition could be achieved by 1985. Unless substantial quantities of feed grains are imported domestic supplies of many common animal products will need to be augmented. The projected meat requirements are substantial, 130,000 MT by 1975. Demand for fresh milk equivalent is expected to more than double between 1965-80. Supplies will only increase 50-60 per cent. Unless average wheat yields are increased to about 3 MT/ha. substantial import requirements could be neces-

sary in any given year. Introduction of greater numbers of different wool quality sheep is also a feasible technical possibility; the result of such import substitution would reduce the projected rate of import requirement growth!"

50. Ronaghy, H.A. "Iran: long-term projection of demand for and supply of major agricultural commodities for 1970, 1975, 1980 and 1985" Dissertation Abstracts International, 31(1), 1970, 28

338:63:380.11

"A study of long-term projections of demand, supply and shortages of major agricultural commodities in Iran is based on population, GNP and income elasticities of demand. Population is assumed to grow at 2.64 to 2.86 per cent. per year and will therefore reach 42-43.8million by 1985. Changes in income are forecast by estimating increases in eight major sectors of the economy. Aggregate demand of rural sector  $r$  for commodity  $i$  ( $X_{iro}$ ) for the projected year  $t$  is:  $X_{irt} = (1 + e^{ir} \frac{Y_r}{Y_{ro}}) (X_{iro}) (N_{rt})$  where change ( $Y$ ),  $x$  is per caput consumption and  $N$  is population. Estimated aggregate demand for major agricultural commodities is estimated to be Rl. 261, 200 to 285, 200 million for 1985 resulting in Rl. 72,000-97,000 million shortage in these items. The study concludes by discussing policy implications of alternative decisions on population, migration and employment!"

51. Stickley, S.T.; Najafi, B. "The effectiveness of farm corporations in Iran" Tahqiqat e Eqtesadi, 8(21), 1971, 18-28  
338.6:63:334.6

"Farm corporations in Iran have been successful in combating fragmentation of holdings. Farmers' incomes have been increased. Socially they have been less than successful and this is considered to be largely a question of attitudes where farmers are still highly individualistic. On Iranian farm corporations members receive wages according to their labour contribution and a share in the profits on the basis of their share holding"

52. Bharier, J. Economic development in Iran 1900-1970"  
London, Oxford University Press, 1971. xviii+314p.  
338.91:63

"In this account of economic development in Iran, one of the four main sections is devoted to the individual sectors of the economy, the first chapter relating to agriculture, forestry and fishing. While quantitative information on the reliability of the agricultural sector is notably scarce and of poor reliability an attempt is made to trace changes in the level of output as well as in the five traditional factors of production in the sector: land, labour, nonhuman power, seed and water. It

is concluded that agriculture has remained one of the least developed sectors in the economy despite its importance in terms of employment or contribution to GNP. However, it has provided sufficient basic foodstuffs for most of the 70-year period to enable efforts to be concentrated elsewhere in the economy. Iran's agricultural potential has barely been tapped, but changes during the 1960s, particularly following the 1962 land reform, will give greater opportunities for workers in this sector to continue to meet growing demands for food and raw materials through extension of both the external and internal margins of cultivation"

53. Bawly, Millner, Proshan & Co. Proposed accounting system for the Ghazvin area development project. Tel Aviv, Tahal (Water Plann.) Ltd, 1966. 61p.

338.97:63:657

" The Ghazvin area project is the outcome of a plan to raise the standard of living of the Iranian farmers Central units have been established to help the farmers increase their output in the most efficient way possible. The system of accounting proposed in this manual is intended to be as flexible as possible so that it can be implemented immediately while the bodies are functioning as units of the plan organization and also at the more advanced stage when they will operate as semi-or fully autonomous bodies."

54. Gittinger, J. P. "Planning and agricultural policy in Iran--Program effects and indirect effects" Econ. Develop and Cultural change, 16(1), 1967, 107-117  
338.98:63
55. Gittinger, J.P. Planning for agricultural development: the Iranian experience. Washington, D.C. Natn. Plann. Ass. xi+123p.  
338.98:63

"This step-by-step examination of the Iranian experience in planning is interesting for its method of presentation and the character of points raised, both general and specific to Iran"

## EDUCATIONAL CORPS

379.2:355.318

56. Blandy, R.; Nashat, M. "The Education Corps in Iran: a survey of its social and economic aspects. International Labour Review, 93(5), 1966, 521-9

379.2:355.318

"A special corps of young Army conscripts was formed in Iran in 1963 with the direct aim of spreading literacy in rural areas, but also in order to help overcome rural poverty, to reduce the level of unemployment among educated youth and to provide a stabilizing influence while far-reaching rural reforms are carried out. The authors describe the activities of this corps and assess its social and economic effectiveness"

AGRICULTURE. AGRONOMY

631

57. Petrushevskij, I.P. Zemedelie i Agrarnye Otnosenija Irane XIII-XIV! [Agriculture and Agrarian Relations in Iran of the 13th-14th Centuries]. Leningrad, Izdatel'stov Akademii Nauk SSSR, 1960. 442p.

631:177

58. Goblot, H. "Le probleme de l'eau en Iran." [The problem of water in Iran.] Orient, 6(23), 1962, 43-60.

631:628.80

59. Gharatchehdaghi, C. "Die landwirtschaftliche Beratung im Iran!" [The Agricultural Extension Service in Iran.] Zeitschrift fur auslandische Landwirtschaft, 10(3), 1971, 216-247

631:659.22

"The advisory service in Iran was established with US assistance in 1952 and is now incorporated into the Minis-

try of Agriculture, operating through 22 provincial offices and concentrating work in land reform areas where agricultural training programmes are stressed. Under the Fourth Development Plan (1968-72) it is planned that by 1972 there should be some 1,500 extension workers advising 800,000 farmers in 15,000 villages. One of the practical difficulties has been the mainly urban middle-class background of the mainly male field workers. Though their theoretical training is adequate they lack practical farm experience and tend to have difficulty in fully understanding the needs of the farmer and the village community. The service also tends to be overcentralized and suffers from some administrative bottlenecks, as well as a lack of experienced specialists."

60. Iran. Ministry of co-operation & Rural Affairs. Statutes of Farm corporations, Tehran, 37p.  
631.1:347.726

1. The Establishment, Name, Central Office and Duration of Farm Corporations
2. Objective, Operations, Capital and Shares of the Corporation.
3. The Organs of the Corporation
4. The Board of Directors of the Corporation.
5. Inspectors and their powers.
6. Annual Balance Sheet and Profit and Loss Account.
7. Miscellaneous Matters.

61. Hakimi, A.H. et al. Farm mechanization in Iran. Reading, Stud. Dep. Agric: Univ. 1969. 43p.  
(No.8)

631.371

"In an introduction J.H.Neville discusses the current trends and prospects for farm mechanization in Iran. At present mechanization is irregular and mainly confined to wealthy farmers; the majority of peasant farmers will tend to obtain much higher returns from the use of improved seed, fertilizer use and more efficient irrigation methods. However, the next step will be mechanization, given impetus by the rapid expansion of industries which will absorb the labour surplus and reduce the proportion of the agricultural population. Increases in the acreage of cultivable land will hasten need for mechanization. K. Eghbal examines "possibilities of agricultural mechanization in Iran" giving background information on soils, climate, suitable crops, etc. The present state of mechanization is described, followed by a breakdown of machinery costs, and evaluation of results and limits of agricultural mechanization units. Draught power is shown to be cheaper than tractor power, but the advantages in favour of mechanization are: increase in area of cultivable land and yields, saving of land area used previously for growing food for oxen, and improved productivity. Future mechanization requires the adoption of: (1) machinery and implements capable of improving quality and the yields; (2) methods to reduce waste; and (3) power

for agricultural operations. An empirical study of the impact of mechanization is made by A.H. Hakimi and H. Nehr in 'Farm power and machinery utilization on large farms in the Ostan of Fars, Iran'. All the 26 farms surveyed were larger than 50 ha., with average power output of 26 h.p.per 100 ha. Because of insecurity of tenure during the enactment of the first and second phases of the Land Reform. Landowners at first showed little interest in investment in farm machinery and equipment, but investment has now increased to absorb Rials 2,100 per ha. Costs and returns were calculated for both tractors and combines; the next income for tractors was Rials 16, per hour, and for combines Rials 269, per hour"

62. Kazemian, G. H. "The impact of United States technical and financial aid on the rural development of Iran!" Dissertation Abstracts, 28(9), 1968, 3328.

631.371:332.453.4

"The aim is to study the overall effects of the US technical assistance in the improvement of farming technology in the rural areas of Iran. Some of the more significant aspects of agricultural programmes such as agricultural extension, crop production, livestock and irrigation, etc. are examined with particular reference to the role of American advisors in the process of transferring technology to the villagers"

63. Bemont, E. "L'irrigation en Iran." [Irrigation in Iran.]  
Annales de Geographie, 70(382), 1961, 597-620

631.67

64. Thorne, W. "Improving irrigation agriculture in Iran, Pakistan, and Turkey" National and regional agricultural development policy, Ankara, Cent. Treaty Orgn (CENTO), 1967. 187-97

631.67

"Similarities and major differences in the development of improved irrigation agriculture in the three countries are outlined, reasons that programmes have not achieved greater increases in yields and farm income are considered and improvements suggested. Recommendations are that (1) priority be placed on increasing yields on presently irrigated lands, rather than developing additional land; (2) technical assistance be provided to help increase crop yields, through (i) technical and financial assistance in farm improvement, (ii) research and extension aid, (iii) supervised water distribution. (iv) seed and variety improvement, (v) low-cost fertilizers; (3) production incentives be provided for farmers, e.g. through adjusted water charges, farm credits; (4) governments encourage private investment in irrigation by reducing restrictions, giving technical and financial aid in well construction and equipment purchase; (5) a regional

research centre be established to investigate common problems; and (6) the advantages of large as well as small projects should be considered in future planning!"

FIELD CROPS. INDUSTRIAL CROPS

633

65. Haynes, J.L. Crop zones of Iran. Teheran, Div.Agric.  
USAID, 1965. 43p.

633

66. Osborn, L.E. Cotton in Iran. Washington, D.C. Foreign  
Agricultural Service, US Department of Agriculture,  
1971, iv+20p.

633.51

"Cotton exports in 1970-71 are estimated at a record of 475,000 bales (480 lb.net), ranking seventh in world cotton exports. The 1970-71 level compares with 430,000 bales a year earlier and the previous record of 459,000 bales in 1965-66. Shipments should range around 450,000 to 500,000 bales a year, as cotton production is expected to increase during the next few years. Cotton production in Iran totalled 680,000 bales in 1970-71, below the record 710,000 bales produced in the previous year. Iran currently ranks eighth in Free World production of cotton outside the U.S. Acreage planted to cotton this

season--790,000 acres compared with 940,000 in 1969-70-- is down because of farmer discontent over last year's low profits, resulting from heavy insect damage and lower cotton prices. Cotton prices in 1970-71, however, were 10 per cent. higher than those of last year (28.0 cents per pound compared with 26.5 cents). As a result, farmers are likely to increase cotton acreage slightly next season, possibly taking land out of wheat, sugarcane, and in some areas, sunflower seed. This would reverse a downward trend in acreage begun in 1962-63, caused by increased production costs and strong competition for land from food crops. However, production increases stemming from use of improved technology and new cotton varieties, as well as the extension of irrigation facilities, should result in increased yields per acre. Cotton production should increase to around 800,000 to 900,000 bales in the near future, depending, of course, on the weather and insect damage. Over the past 15 years, cotton production in Iran has increased by an average of 27,000 bales annually, and yields per acre have gained about 14 pounds per year. Cotton area has risen more than 15,000 acres annually during the period, even though it has declined from a peak of about a million acres in 1962-63. Achievement of the Government's goal of increasing average yields by 100 pounds over the present 413 pounds per acre, as proposed in the fourth Five-Year Plan, would offset the effect of expected acreage reductions."

67. "Factors affecting income from cotton cultivation!"

Tahqiqat Egesadi, 5(13/14), 1968, 239-48

633.51:338.58

"The cost of cotton production and productivity in Iran varies with the type of land, degree of mechanization and farming practices in given areas. In Iran the more advanced forms of cultivation are to be found in the region of Georgia where an average of 1,500 kg. of cotton is produced for every ha. of land. Total costs for normal dry farming is estimated to be approximately Rials 6,700 per ha. In the case of irrigated farms production costs are around Rials 14,600 per ha. Compared to USA where costs per kg. of unginned cotton is between Rials 38 and 47, Iranian cotton in the Georgian region is four times as expensive. In Iran cotton production is economical only when at least 450 kg. of unginned cotton is produced per ha. when cultivation is primitive. On the more advanced farms it is economical if yields are 1,500 kg. per ha!"

68. Riahi, E. "Factors causing declines in the sugar content of beets in Iran!" Tahqiqat Eqtesadi, 6(15/16), 1969, 80-97

633.61:338.91

"The progress of the sugar-beet industry in Iran is

first reviewed then the causes of the decline in extractable sugar content are examined. The average length of production in the factory is considered too long and it is suggested that the longer the time span of production the greater the decline in sugar content of the beets. Another possible cause may be the lack of trimming on the farm. There is less sugar in both ends of the beet and since beets are purchased by weight, farmers deliver their products untrimmed to obtain more cash. Sugar content from domestic seeds is about 1.9 per cent. lower than in 1943. Although 0.3 per cent. can be attributed to farm trimming practices and 0.5 per cent. can be attributed to root growth 1.1 per cent. is attributed to the new type of seed now being cultivated. Poor storage facilities are also considered to be a major factor in the reduction of sugar content!"

## CITRUS FRUITS

634.3

69. Bar-Akiva, A. "Citrus growing in Iran!" World Crops, 17(3), 1965, 39-43.

634.3

"A review is made of citrus-growing in Iran, including growing areas, soils, planting material, cultural practices, diseases and pests, fertilizing, etc. Citrus cultivation is on the increase in both growing areas, viz. in the north in the Caspian littoral and in the south in the various oases of the huge desert. Stress is laid upon the need for strengthening research and extension services; a special citrus section of the Ministry of Agriculture is considered justified"

STOCKBREEDING. LIVESTOCK. DOMESTIC

ANIMALS. PETS

636

70. Haynes, J.L. Potentials for increased production of livestock in Iran. Teheran, Div. Agric., USAID, 1965, 19p.  
636:338:63
71. CENTO Conference on national and regional livestock development policy, held in Islamabad, Pakistan, December 15-21, 1969. Ankara, Office of the United States Economic Coordinator for CENTO Affairs, 1970. 134p.  
636:338:631.1

"The following papers were presented at the Conference: Potential production and profit from a livestock development policy (F. A. Kutish); CENTO Report of the conference on national and regional livestock development policy; Livestock development in Pakistan during the third plan and proposals for the fourth plan (S.M. Ali); Livestock improvement programs in Iran (M. Ferdows); General aspects of livestock sector and its development in Turkey (N. Uludag); Feed production and distribution (M. A. Manou-

chehri); Collection of vital animal husbandry statistics (Q. G. Kibria); Livestock development program in Turkey (M. Peker); Some aspects of nomadism and transhumance in relation to livestock production (P. Durran); The planning, implementation and results of the livestock fattening program in Turkey (P. P. Fitzhugh); Livestock improvement in the Near East (D. Faulkner); Management and improvement of rangelands in Iran (J. Iranfar); Management of livestock and poultry on ranges as well as on arable lands (A. Quddoos); Range management and grazing conditions (N. Alinoglu); Control of animal diseases and parasites (H. Ramyar); Incidence and control of animal diseases in East Pakistan (A. Ahmed); Control of animal diseases and regulation of animal movement (N. Buharalilar); Marketing of livestock and livestock products in Iran (H. Salimi); Marketing of livestock and their products in Pakistan (A. M. Chaudhri); Marketing organization of livestock and animal products in Turkey (T. Buyukutku); Provision of credit for livestock improvement (K. Khatami); Production incentives, including subsidies and credit in Pakistan (A. M. Chaudhri); Credit granted by the Agricultural Bank for animal husbandry and better livestock production (Y. Poyraz)!"

72.      Pearse, C.K. A range, pasture and fodder crop research program for Iran; a problem analysis and working plan. Tehran, Minist. Natural Resour. (in co-op with FAO), 1968. 67p.

636.086:633.2

"This analysis of the range, pasture and forage problems of Iran and the resultant plan of work is intended to serve as a guide-line for the execution of the Pasture and Fodder Crops Investigation project, and for the continuing research on these problems to be conducted by the Natural Resources Research Institute. It examines the technical and economic aspects of the major problems to be attacked, the approach to be taken, and the procedures to be followed in order to improve the nutrition and productivity of Iran's livestock!"

73. Sattari, M. "Sheep in the economy of Iran." Mouton, 23  
1968, 31-2  
636.3:637.5:637.1

"Mutton is much sought after in Iran and is consumed in greater quantities per caput than beef, poultry or fish. Sheep milk and goat milk are also utilized and are made into butter or cheese; cows yield only 10 per cent. of the total milk production. 38 per cent. of sheep flocks and 37 per cent. of goat flocks are kept for milk production!"

## VILLAGE PLANNING

711.437

74. Village planning and reconstruction of the earthquake zone  
in the Ghazvin area—Iran. Teheran, UN Tech. Ass. Bd.  
1968. 69p.  
711.437

"This report on a reconstruction project undertaken after the 1963 earthquake presents a review of the planning organization and methods of work carried out by this team. Special attention was paid to village way of life prior to the disaster so that the new communities would recreate the same psychological, social and physical characteristics of traditional life. Plans were prepared for two villages, one of 250 families and the other of 84 families. Since agriculture is the predominant form of livelihood, investigations were made into industries capable of utilizing raw material from agriculture. Crops studied in detail included: sugar-beet, fruit, cotton, wool and vegetable oil"

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