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RURAL INDUSTRIES AND RURAL NON-FARM ACTIVITIES DEVELOPMENT
IN IRAN*

by

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and

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I. THE AGRICULTURAL SECTOR & LAND REFORM

a. Introduction

1.1. For a proper comprehension of the programmes of development of rural industries in Iran, it is necessary to view the rural situation, its problems, its prospects of development and the totality of action taken so far for rural areas particularly in respect of the agricultural sector. For the development of the rural non-farm sector of which the rural industries programme forms a component, it is also necessary to analyse the type of rural institutions existing and their role, and the inter-action of development programmes of the country as a whole on the rural sector. In this paper, an overview of these aspects of the rural sector are presented to facilitate a meaningful understanding of the rural industries programme in Iran, together with a discussion on the experience to-date on this programme.

1.2. The question which arises first is how far the rural sector in Iran typical or atypical in comparison to rural sectors in other countries. While the rural sector all over the world is characterised by the small size of resident communities, it is in respect of the economic activities that the Iran situation has major differences with those of other countries having a large agricultural sector. In Iran, out of a total land area of 1.65 million sq.kms, an estimated 49.7 percent is uncultivable. Out of the balance, another 20 percent is arid but cultivable land, lacking water resources. Only about 5.7 percent of lands are under permanent and annual crops, 3.8 percent are fallow and 6.2 percent are meadows and pastures. Out of the cropped area, about 62 percent is rainfed only. Therefore rural communities in Iran vary considerably from region to region in their attachment to land for their livelihood. There are some regions where 85 percent of the rural population depends on agriculture, and there are other regions where about 43 percent depend on crafts and rural non-farm activities. In addition, most parts of Iran suffer from extreme climatic conditions varying from very hot and dry summers to severe snow bound winters, giving 7.0 - 7.5 months for an average agricultural season in the year.

b. Action On and Results of Land Reforms

1.3. Whereas the intention to start a major land reforms programme had been expressed by the Shah-n-Shah immediately after his assuming the throne in 1941, and limited programmes had been carried out since then, it was in 1962 that the major hurdles (legislative, administrative and financial) were overcome, to initiate a nationwide programme of land ownership redistribution.

At this time, the agricultural sector employed 47 percent of the labourforce but contributed only 29 percent of the gross national product. Absentee landlordism, share-cropping arrangements, primitive farming techniques and low level of capital formation in agriculture were largely responsible for this situation.

1.4 The main objective of the 'original land reform law' was a socio-political one in the sense that it was directed towards breaking up large vested interests in land and the development of a self-reliant and independent peasant proprietorship, interested in their own lands. Such direct ownership of land by tillers of the soil, it was thought, would provide the economic incentive for improving the agricultural sector. In this first phase, all estates in excess of one village, or parts of large villages equivalent to a 'standard village' (cheshdan), were transferred to the occupying tenants. Mechanised estates i.e. lands cultivated with agricultural machinery and wage labour, garden or orchard estates and tea estates were exempt from this redistribution obligation. The ownership was transferred to ex-tenants in proportion to lands cultivated. The second stage was intended to improve the land tenancy situation and set limits to the extent of land which could be held by the owner of a village. The third stage was launched to eliminate all forms of land tenancy.

1.5 Various studies carried out on the nature and effects of this measure indicate that by 1974 about 60 percent of agricultural families owned and farmed some 44 percent of total cultivated land in Iran. By this process the number of farm owners more than tripled from the pre-reform period, and the area of land cultivated by them more than quadrupled. Estimates place the number of large farms exceeding 100 ha. in size in existence now at around 11,000 units.

1.6 The economic objectives of land reform came up for consideration fairly early during and after the first phase was launched. Measures for making available the necessary inputs and frame new organisational structures to modernise the agricultural sector, improve total production, diversify the crops pattern, and improve land and labour productivity were initiated in quick stages. Results of studies indicated that by 1974, production of wheat increased by 7 percent, of rice by 20 percent, of cotton by 13 percent and of sugar beet by 120 percent. Increases began to rise in proportion because of these measures and because sale proceeds went directly to owner-farmers.

c. Modernisation of Rural Institutions

1.7 It was realised that redistribution of land by itself does not result in the bringing into existence of a viable production and distribution system. Therefore efforts were directed at creating such institutions which would serve the objective of modernising agriculture, and while increasing agricultural production, will bring more incomes to the farming community directly. This objective was approached without a bias on any standard formula based on politico-economic systems. Therefore an open-ended experimentation process was initiated to find out the most viable and suitable system for Iranian conditions. Initially the beneficiaries of land reform were to join primary rural cooperatives. In 1963, a structure was given to these primary societies by creating the Central Organisation for Rural Cooperatives (an apex body) and Rural Cooperative Unions (intermediate bodies). These cooperatives were basically service cooperatives, offering credit, marketing and supply services, and also consumer retail services. Credit was mostly obtained through the Agricultural Cooperatives Bank. The supply services were for fertilisers, improved seeds, implements and insecticides. Initially these primary cooperatives were small, each covering 2-4 villages and having about 150-200 members. A total of 8,450 such cooperatives covering 29,509 villages came into existence, but it was found necessary to reorganise them as the primary cooperatives were much too small to be viable. In 1976 the 8,450 cooperatives were reorganised into 2,871 primary societies, and 147 cooperative unions were formed, involving 2.7 million members and an investment of Rials 7.8 billion.

1.8 The need was felt to go beyond the servicing of farming institution such as cooperatives in order to improve land productivity through some form of small-farm consolidation, the objectives were to utilise large farming techniques and management to modernise this sector. A new type of farming institution was thought out, called the Farm Corporations, and a law to this effect was passed in 1967. According to this law, in areas having the potential for large-scale farming, if a minimum of 60 percent of farmers voted in favour of forming a Farm Corporation, such a Corporation is established and all farmers in the area are obliged to join it and permanently transfer their rights over their land to the Corporation. Each member in the Corporation is then given shares according to the value of 'utilisation rights' of land and other assets transferred. The Government then assists the Corporation by providing the services of a manager and other technical hands for a fixed period, as a training effort. The shareholders manage the Corporation through an elected Board of Directors, receiving guidance on planning and utilisation of resources from the manager and other experts provided by the Government. The Government also assists in the provision of credit,

facilitates supply of fertilisers, insecticides and equipment. The Corporations are exempt from payment of registration and other fees, and also income and municipal taxes for a period of 10 years.

1.9 After a number of Farm Corporations were established and were working for some time, a third institutional form was decided upon in 1972 to overcome some of the problems arising in the Farm Corporations particularly in regard to getting them quickly organised and in respect of large infrastructural and social overheads. The third form is called Production Cooperatives, and these differ from Farm Corporations in the sense that ownership rights over land are retained by members, but pooled farming is undertaken.

1.10 Upto January 1977, 89 farm corporations, and 35 production cooperatives have been established covering 345,671 hectares of arable land, i.e. an average of about 3,000 hectares per each consolidated farming unit. Each member, in addition to receiving annual dividends from the operation, also has a right to work and receive wages. Studies carried out till date indicate that such farming units which have been in existence for some time have brought into cultivation over 30 percent of new land over and above their original area, and increased water supply through various infrastructural works to more than double their original level. The gross income of each farm has on an average increased over 300 percent and the shareholders' personal income improved between 250-350 percent.

1.11 Apart from these rural institutions, considerable efforts were expended on the development of agro-industrial or agro-business complexes. These farming complexes are promoted mostly in newly developed lower-dam areas with irrigation facilities, to undertake large scale commercial farming, vertically integrated with processing facilities involving farming regions having 60-80,000 hectares of cultivable land and farming units of 3-10,000 hectares. The agricultural products stressed in such complexes include sugar cane, grain crops, oil crops and forage crops. More recently, largescale livestock complexes integrated with meat and/or dairy products industries have been so promoted. The discussions in this paper do not include this type of development effort.

1.12 In addition to these types of institutions engaged in productive activities, other new or reorganised forms of village institutions have been introduced. The Village Councils exist as politico-administrative institutions with elected membership, **controlling** limited funds raised from taxes and government grants and are responsible for developing and managing certain civic facilities in the villages. The Rural Cultural Houses are established a service institution established under the leadership of the Ministry of Cooperation and Rural Affairs, providing educational, cultural and children's **welfare** services.

II. THE RURAL NON-FARM SECTOR

a. Situation Analyses

2.1 While the steps taken in respect of the agricultural sector^a, particularly for giving the tiller of the soil maximum benefits from his labours and in introducing modernisation through aggregated operations rather than fragmented ones were considered appropriate, by 1969 certain trends began to be noticed. Land ownership redistribution brought in its wake a tremendous psychological upsurge of interest in agriculture, and small-farm consolidation brought about modernisation, improvement in production and productivity in the agricultural sector, but it also led to mechanisation and lack of absorption of natural increases in rural labourforce, in the agricultural sector. The first signs of this trend were found in major increases in rural-urban migration.

2.2 The Government therefore began to look at new avenues for development action in the rural sector. At the request of the concerned Ministry, a team of experts from the ILO examined the situation in December 1969 and came to the following conclusions:

- a. In its initial concern for the rural sector, the Government had rightly given attention to improving agriculture. The 4th National Development Plan (1967-1972) aimed at a 67 percent increase in agricultural production and a 33 percent in labour productivity in this sector.
- b. Along with this effort, certain social uplift work and steps towards improving the quality of human resources in rural areas through education and health programmes, had been undertaken.
- c. But the labourforce participation rates in Iran continued to be low (26.7% in 1967 compared to 43.0% in India, 43.4% in Greece and 47.3% in the U.K.) indicating scope and need for expanding employment opportunities and need to involve more people in productive work. The labourforce participation rate for females was only 8.2% in Iran (c.f. 27.9 in India, 27.8 in Greece and 32.6 in the U.K.) and this was particularly marked in rural areas.
- d. There were elements of the rural population who had not been covered so far by the rural development programmes, and these were people who were not engaged in agriculture and did not become recipients of land in the land-reform programme. Since it was not the intention of Government to create a new privileged class, new programmes to cover them needed to be introduced.

a. According to UN and ILO definitions, the major division "Agriculture" includes livestock production, forestry, fishing and hunting.

In essence it suggested a widening of rural development programmes by taking up the rural non-farm sector for attention, to initiate an intensive programme of study to locate development potential of this sector and start pilot programmes of development. It may be recalled that this 'sector' was at that time an unconventional grouping in international and national terminology.

2.3 The Government went ahead on the main part of the recommendations and within 8 months of these proposals, i.e. around September 1970, created a Department of Rural Non-Farm Activities Development¹ in the Ministry of Land Reform and Cooperatives². This new Department, along with the Research Centre of the Ministry, initiated a series of studies on this sector. These studies indicated that:

- a. In some areas non-farm activities constituted a major source of employment, sometimes involving as high as 44-45% of rural labourforce.
- b. Very significant proportions of agricultural families augment their incomes through non-farm activities varying from crafts, to construction labour. In some areas as much as 79 percent of such families had these types of subsidiary activities.
- c. A substantial number of rural households were landless. In the surveyed areas it varied from 22-42%, and their means of livelihood depended partly on peak season agricultural activities, and/or on non-farm activities.
- d. There were large regional variations not only on the incidence of non-farm activities being carried out in rural areas, but also on the prospects of their development.

2.4 The economic activity groups which were broadly identified as areas which provide scope for action in the rural non-farm sector were as follows:

- a. Improvement of traditional rural crafts, through improvement in equipment and processes, product designs and quality and through marketing assistance.
- b. Introduction of new crafts which has either rural or urban markets e.g. embroidery goods, machine and hand knitted products; new products of fibre, leather, straw, etc.

-
1. The Department was later reconstituted into an semi-autonomous Organisation (ONFA).
 2. Reconstituted later into the Ministry of Cooperation and Rural Affairs. (MCRA).

- c. Introduction of industries to support agriculture or process its products.
- d. Introduction of industries related to live-stock, poultry, fishing and forestry activities.
- e. Introduction of industries for building-materials production.
- f. Promotion of village related manufacturing and servicing activities e.g. repairs and maintenance services, small-scale grain grinding and milling, and services relating to tailoring, bakery, barber, butcher, etc. Very often these are called "trade-industries", being carried out in the front or backyard of a retail shop.
- g. Promotion of other non-manufacturing services e.g. in the construction, commercial, transport and related fields.

b. Objectives of Action & Administrative Structure

2.5 As stated earlier, the Government established an Organisation for Development of Rural Non-Farm Activities (ONFA). Its main objectives as provided for in its constitution were "to promote opportunities for employment in rural non-farm activities and to foster their development" through rural diversification by initiating surveys and studies to identify development possibilities and plan for the development of activities in this field, provide training, improve products, equipment and facilities, establish workshops, carry out marketing and commercial operations. It was also understood that employment expansion will have a beneficial effect on incomes in general, and on the demand for industrial products, for which manufacturing capacities were being developed all over the country. The Organisation was given a Working Capital equivalent to about U.S. \$ 7,000,000 with a right to utilise credits and grants made available from other Government sources, and obtain credits and loans from other bankable sources.

2.6 Because of the fact that the Organisation was intrinsically linked to the Ministry of Cooperation and Rural Affairs, its entire efforts were directed to advising and assisting Farm Corporations and Rural Cooperatives on diversifying their activities into the manufacturing and processing fields. While this facilitated matters as existing rural institutions and management resources could be readily used for such a programme, it had one big disadvantage in that most of the benefits of the programme went to the same group of people who had benefitted from the earlier agricultural development programmes. In order to overcome this limitation, the Government modified the statutes of such Cooperatives and Corporations to allow

for new membership from the non-farm group. But this has not fully overcome the problem of limited reach. With the recent merger of the two Ministries concerned with the rural sector, a broader coverage is proposed to be made.

2.7 As the studies undertaken by the Organisation relating to the various component sub-sectors within the rural non-farm sector became more widely available and certain pointers of action emerged, the Ministry of Cooperation and Rural Affairs expanded its organisational structure to deal with this diversified group of activities. Firstly, a Department of Rural Reconstruction was established to spearhead a programme of construction in rural areas. It had been pointed out in the above studies that certain points of concentration in rural areas will have to be identified to provide some essential infrastructure to facilitate non-farm sector development without diffusing the effort too thinly. Under this rural reconstruction programme, 1,200 poles of development, called Rural Development Centres (or Shahraks) were selected and a standard list of infrastructural works in the form of low-level urbanisation was undertaken. These Shahraks consisted of a few villages in a 12-15 kms radius connected to a central village, the total area having 12-17,000 inhabitants. Secondly, a unit dealing with food industries and large storage facilities from the former Ministry of Consumer Products, was transferred and made into a Department of MCRA so as to facilitate the location of such industries and facilities specifically in rural areas.

2.8 Thus Organisationally, while various rural non-farm group of activities were brought under one Ministry, at first there was no integration of the plans of development for this sector as a whole. Over a period of time some of the units were merged with OMFA and some continued as separate units. The programme for the development of selected development poles (Shahraks) continued to emphasise the social, cultural and human resources development activities (schools, hospitals, cultural houses, creches), on consumer and public services (stores, postoffice, bath house), and on road communications connecting the different villages. These Shahrak Centres could not therefore act as employment and income generating poles but acted as social and educational service poles. Moreover while the Plan and Budget Organisation and the Ministry of Agriculture provided the focal points for coordination of programmes of development in the agricultural sector, and established the priorities of projects and programmes within the sector, there did not emerge any similar focal point for coordination of programmes in the rural non-farm sector at an appropriate high level. The OMFA being an unit within a single Ministry, could not perform such a role, though it continued to take up studies to highlight the sectoral problems and prospects as a whole.

c. Summary of Programmes

2.9 The programmes for the development of the rural non-farm sector in Iran are financed from various budgetary and extra-budgetary sources, and not all the funds expended on this sector are directly under the budgetary resources of the ONFA. Broadly the programmes may be divided as follows:

- a. Planning, surveying, studying, developing, coordinating and supervising the programmes for the rural non-farm sector. This is carried out mostly by the headquarters Organisation of ONFA, which is also responsible for assisting the provincial (ostans) offices in these functions.
- b. Establishment and implementation of a variety of programmes of development for which no commercial return is expected such as training in vocational, technical and crafts occupations, experimentation, experimental development of new products, processes and equipment, etc.
- c. Investment in productive and commercial activities with expectation of commercial return of which ONFA invests or provides Consultancy Services.

Item (a) is met initially from the Organisation's Working Capital and replenished from budgetary resources of the Government. Item (b) is met mostly from annual grants from the Plan and Budget Organisation. Recently these are being allocated to the Provinces directly. Item (c) is diffused in various places. Investments in Farm Corporations and cooperatives are from their own budgets and borrowings. Fixed capital investments by ONFA is from its own Working Capital budget and investments by ONFA on commercial activities are also from this budget. Part of the investment costs on approved rural industries projects in Farm Corporations and Cooperatives, such as amounts spent on technical and techno-economic studies, and 20 percent of the Capital costs, are given as grants, funds for which are obtained from the Plan and Budget Organisation. Summary details on the level of expenditures on these projects and activities are given in Appendix I.

III. RURAL INDUSTRIES PROGRAMMES

a. Forward & Backward Linkages Necessary

3.1 The studies carried out in the Organisation and the ILO Team of Advisors, indicate that given the trends in growth rates of population and labourforce in rural and urban areas, it can be concluded that if the present per-capita rural-urban income ratio of about 4:1 were to be maintained and not allowed to fall, and this

objective were to be met through improvement in the agricultural sector only, then by 1992 the agricultural labourforce in relation to the total labourforce will have to be brought down from 38.9 percent to 14.3 percent. If the income differential is to be reduced to half the present level, then the decline will be to 8.1 percent, and if the difference is to be eliminated altogether, then the agricultural labourforce will have to decline to 6.1 percent of the total. Even in the most developed countries these percentages are higher (France 11.6, Japan 12.8, Italy 15.1)¹. Since these low levels are difficult to attain, it is obvious that the agricultural sector cannot provide the answer to the problem of closing the rural-urban income gap in Iran. The answer is to diversify the rural economy. Any programme of diversification will have to have certain types of linkages with the agricultural sector, and with other sectors of the rural economy as they gradually develop. It is also seen that in other countries, as the share of non-agricultural labourforce in the total labourforce increases, i.e. as industrialisation advances, the share of labourforce engaged in non-agricultural activities in rural areas, also increases, i.e. industrialisation becomes a deeper phenomena penetrating both urban and rural areas. For example, Japan with 80.7 percent of its labourforce in the non-agricultural sectors, has 61.9% of its rural labourforce in such activities. The corresponding figures for Federal Republic of Germany are 90.0 and 68.3, for the U.S.A. are 96.3 and 88.0%.

3.2 These forward and backward linkages may be broadly grouped as follows:

- a. Activities having forward and backward linkages with agriculture e.g. (i) providing services to support agricultural activities (supply of fertilisers, insecticides, and agricultural equipment and tools; repairs and maintenance of agricultural equipment and tools, pumps, sprayers and infrastructural works of canals, distributaries, irrigation locks and gates; provision of packaging materials of sacking, netting, crates, baskets; or (ii) providing facilities to process the products of agriculture (grading, cleaning and washing, storing, freezing, drying, canning, bottling, grinding or milling, edible oils extracting, slaughtering, meat packing, milk pasteurising, processing, and generally preparing all agricultural products for the market).
- b. Activities having forward and backward linkages with other rural sectors. The other rural sectors are:
 - crafts, manufacturing and mining.
 - rural construction,

a. ILO Yearbook of Labour Statistics, 1974 and mostly relate to years 1971-74.

b. Estimation of Rural Participation in Non-Agricultural Employment, by I. Naiken, P.A.O. Monthly Bulletin of Agricultural Economics and Statistics, January 1977.

- rural wholesale and retail trade, storage, transport and communications, and
- community related and personal services.

The forward linkages are related to the provision of inputs for these sectoral activities, e.g. making of craft tools, or grading and dyeing of fibres for a textile industry, or manufacture of building materials for the construction industry. The backward linkages are those which arise as a result of the activity having been established, e.g. the repair shops, restaurants and teashops which come up after the coming into existence of a transport route. No doubt some of the forward linkages are from urban or large scale industry e.g. the metallic intermediate products which are used in the agricultural tools workshop or rural blacksmithy shops. Similarly some of the backward linkages arise out of industrial products manufactured in urban areas but used in rural areas, such as repair shops for transport equipment, maintenance shops for a variety of tools used in rural construction industry or "trade industries".

3.3 It is always easy for entrepreneurs in rural areas to identify these linkages and the investment and income prospects which they present because rural people are used largely to traditional activities. In order to promote these industrial activities, a promotional agency is required with the express purpose of challenging traditional patterns of thinking and investments, to introduce innovative trends so as to increase employment, incomes and consumption. The role of the promotional agency will have to depend on the level of understanding and resources of rural entrepreneurs, or rural entrepreneurial institutions (cooperatives, corporations, etc.) or even urban entrepreneurs willing to invest and work in rural areas.

3.4 A list of industrial and crafts activities which were taken up on a priority basis by the CNFA in the 5th Development Plan period is given in Appendix II. The list covers all the different sources of funds mentioned in para 2.9 above. It may be seen that quite often, the industrial or processing activity is proposed in conjunction with an agricultural activity in single enterprises, for both the agricultural and processing components, as this was considered organisationally preferable. It may also be seen that the present programme does not include promotion of industries in rural areas based on non-rural raw material resources, or urban sub-contracted industrial activities, as it is felt that this group of activities may be promoted at a later stage, if at all.

3.5 The growth of the various rural industries and services that may be projected will depend on the linkages mentioned above. The agriculture-related industries will depend on the extent to which agriculture is developed and diversified. Similarly, the development of construction-related industries will depend partly on the development tempo on infrastructural works and partly on growth of rural population and affluence in the rural community increasing the demand for housing. The demand for "trade industries" will depend on income levels in the rural community. Taking these factors into consideration, more detailed studies indicate that the employment absorption capacity of the various sub-sectors in rural areas is as follows:

Rural Labour Force Distribution, Present and Projected

Sectors & Categories	Present, 1972		Projected 1992	
	Nos. '000	Percent	Nos. '000	Percent
a. Agriculture & Related	3,419	71.6	3,400- 3,420	55.5- 54.9
b. Rural Admin. & Social Services	85	1.8	216	3.5
c. Construction & Related	293	6.1	565	9.2 - 9.1
d. Rural "Trade- Industries, Productive & Technological Services"	457	9.6	1,173	19.1- 18.8
e. Manufacturing & Mining				
- Crafts	450	9.4	549- 605	9.0- 9.7
- Agri-Products Related	49	1.0	174	2.8
- Others	23	0.5	50- 74	0.9- 1.2
	<u>4,776</u>	<u>100.0</u>	<u>6,127-6,227</u>	<u>100.0</u>

3.6 It may be seen from the above that while the agriculture-related industries group is estimated to grow in terms of employment by about 350 percent, it will absorb only about 8.6 percent of the net increase in rural labour force, whereas the "trade industries, productive and technological services" group is estimated to grow in terms of employment by about 250 percent, but will absorb more than 49 percent of the net increase in rural labour force in the 20 year period. The table thus gives an indication of the type of promotional effort required and the sub-sectors and activities to which they should be directed. The net contribution to incomes generation of these sub-sectors and

activities in rural areas does not depend only on the extent of employment generation but also on the comparative levels of personal income which will arise in each activity. Differences will no doubt exist in this respect between the various activity groups; the more "modern" the activity in question, the higher would be the levels of skills required, and higher the wages and incomes that it may provide. Moreover the technological policies of the government in these rural sectors will determine the extent to which corollary development and expansion takes place in the machine-tools industry of the country.

b. Agriculture Related Rural Industries

3.7 The agriculture related processing industries as backward linkages to the agricultural sector which are within the purview of the programme may be grouped as follows:

- a. Field crop based industries arising from grains, oilseeds and fibre crops.
- b. Fruits, vegetable and plantation crop based industries arising from fruit crops including vineyards, dates and palm; vegetable crops; tea, coffee, tobacco, sugarcane, sugar beet, rubber and nuts. Also silkworm rearing from mulberry plantations.
- c. Livestock and poultry based industries dealing with meat, milk and milk-derived products, hides and skins, eggs, animal oils fats and glue, wool and feather.
- d. Forest products based industries, dealing with wood and wood-derived products including cork, wood charcoal, etc; bamboo, reeds and cane; barks, roots and gums as organic pigments and dyes, adhesive resins and chemicals; spices, herbs, wild flowers, leaves, essential oils, as flavours and perfumes, indigenous medicines, smoking ingredients; lac and honey.
- e. Fishery products based industries, marine coastal and inland.

3.8 At present employment in food industries in Iran is divided between rural and urban areas in the ratio of approximately 50:50. There are three related factors in projecting the growth rate of these industries in rural areas. The rate of growth of agricultural production at constant prices on a national basis is around 6-7 percent per year. While this might provide a parameter for estimating growth of the entire agri-related industries in rural areas, any government policies to locate such industries mostly, if not exclusively, in rural areas will alter this rate of growth favourably. Moreover, certain processing activities are

likely to grow at a faster rate as several products are now being wasted or not processed at all. However, about 78 percent of the "industries" accounted for in the food group are very small ones and non-powered. Most new processing activities which are planned and are coming up, use improved technology and therefore the manpower content of input will be lower per unit of production. A rate of employment growth in this group of activities exceeding 5-7 percent per year may not be expected.

3.9 One of the specific factors which has been taken into account in relation to the industries in this group, is the manner in which decisions are made in regard to the location of these industries. It has been found that a 'programme' approach has been more meaningful than a 'projects' approach to analysing the choices available. For example, an examination of a proposal to set up a wool washing plant is less meaningful when the 'project' economics of such a plant are analysed in rural vs. urban location, as compared to an examination of the economics of the whole 'programme' of wool production in terms of a continuum of several activities. Thus a wool-washing plant in a given rural location may show poor returns compared to a larger plant in the nation's capital city, but when the economics of the whole series of operations from shearing, washing, carding, spinning to carpets production in a locality or region are considered, including inter-process transportation costs, the economic picture changes considerably. The differences are more marked when an ultimate production activity is carried out in rural areas or ultimate product used in rural areas, for which the intermediate products were being unnecessarily moved back and forth. Similarly, the differences are also marked when a major waste or by-product arising from a process is needed and has a market value in rural areas but is wasted in urban areas, e.g. oil cakes from vegetable oilseeds pressing. Finally, such an analysis gives a different bias to size of plants and the level of technology, the smaller and medium sized units becoming equally or more economic and useful.

3.10 The industries mentioned above are the ones which have backward linkages with agriculture. There are several industries which have forward linkages with agriculture and livestock production or provide services to them such as bulk blending of fertilisers, making of disinfectant and insecticide formulations, making of cattle and poultry feeds and concentrates. These are normally done in large-to-medium-scale facilities, and trends towards placing them in urban or semi-urban localities, do exist. In addition, provision of packing materials for this sector is an important activity such as making of buckets, bags, nets, crates, boxes, etc. These are easy to promote in rural areas as they use rural raw materials and are used in rural areas. Most of these are promoted through small scale and cottage type enterprises.

c. Rural Crafts

3.11 At the start of the programme on rural non-farm sector development in Iran, the rural craft activities group provided the highest percentage of employment in this sector, accounting for over 30 percent of the non-farm labour force including rural construction. These crafts are largely traditional activities, having traditional equipment, tools and product designs, and long standing marketing channels through a whole series of middlemen. Within this group, textiles and floor coverings account for 71 percent of the total employment. The production of floor coverings (carpets and rugs) constituted the largest single craft activity with an annual production of around \$ 100-125 million and employment on full-time and part-time basis of around 308,000 persons both full-time and part-time in rural areas.

3.12 Studies showed that this sector is favourably affected in certain respects by increase in affluence in the country and unfavourably in certain other respects. Growth in affluence increases the wage levels generally, and since these are highly labour intensive industries, their costs of production increases disproportionately. Moreover growth of affluence reduces the demand for daily-use craft products, and shifts in favour of high priced art and craft products. The same effects are observed in respect of both domestic and export markets of craft products. Thus in recent years, the economic conditions arising out of the tempo of economic development have resulted in a major shift in the demand towards mostly high-priced Iranian carpets, both in domestic and export markets. It is in respect of rural craft goods having a tourist market that a direct relationship with expansion of tourism has been noticed. But here also the demand has an elasticity of about 60-70 percent with growth in tourist traffic, and that too only in respect of tourists from more affluent countries.

3.13 Therefore as far as the programme of the ONFA is concerned, the efforts directed towards the development of the rural crafts sector is confined to the following:

- a. Modernisation of the rural crafts sector through improved equipment in individual crafts shops, and improved equipment and processes as common facilities directly operated by ONFA, e.g. dyeing of yarns. All this is also accompanied by provision of training facilities.

- b. Improvement in the quality and lowering of prices of bulk raw materials used in the crafts sector, such as wool, silk, etc.
- c. Marketing assistance directly by ONFA and through other craft organisations.
- d. Introduction of new crafts using more 'modern' equipment and currently having a good market, e.g. knitted and unbrodered goods, etc.

3.14 The total employment in rural craft activities is not estimated to increase considerably, if at all. A modest rate of employment growth of 2-3 percent per year is predicted, but this might largely be in the form of daily part-time or agricultural off-season employment.

d. Rural Trade-Industries, Productive and Technological Services

3.15 This grouping of 'industrial' activities is somewhat unconventional, but has been done to facilitate an understanding of the development process and the manner in which these activities are promoted. There are a whole range of technological services which are rural based and serve the needs of each community or a group of neighbouring communities. These services are for repairs and maintenance with corollary manufacture of parts and components to the extent possible and necessary. These services tend to be multi-purpose and multi-sectoral at lower-order population centres and grow more specialised at higher-order centres. Thus a village blacksmith serves the agricultural, crafts and transport sectors at the level of a small village, and a specialised tractor-servicing station does so for the agricultural sector, but is located in a higher-order village or even a 'rural-town'.

3.16 A study of the agricultural machinery and implements industry in Iran showed that about 250 establishments in this field, about 90 percent of establishments employed less than 10 employees each, were located mostly in rural towns, produced a wide variety of products such as pumps, sprayers, plows, discs, trailers, driers, hullers, peelers, elevators etc., and about 30 percent of them were set up originally as repair workshops, with a large number of the total continuing to undertake repair work for agricultural and related implements in their locality and sometimes of other industries as well. This shows the extent to which such technological-servicing industries lead to a wider dispersal in the development of manufacturing activities in the country. In respect of more modern small industry equipment such

as power looms, winding machines, etc. are concentrated in certain areas, and most of them start from manufacturing a few components.

3.17 The ONFA's programme for the development of these technological services is to organise a number of rural vocational training centres, offer training facilities to rural youth, and then extend credit facilities for them to establish workshops in rural areas. The ultimate intention is that these workshops will be located in rural workshop clusters which would enable inter-servicing between the various workshops in the cluster and enable the provision of a composite group of services in a single location. Ten such rural vocational training centres have been established. The trades selected for these centres are such that they are combined in affinity groups, as any degree of specialisation will not be useful in rural areas. Six such composite trades have been identified, and courses have been started in three such composite trades.

3.18 The second group of activities relate to "trade-industries", or productive services, i.e. the activity is mostly located in a commercial area, such as a bazar or shopping centre and the productive activity is carried out either in front of or behind the retail store. These activities serve mostly the local community and are organised as 1-5 man shops. It includes a variety of activities such as tailoring and dress making, bread baking, wheat and rice milling for local consumption, laundering and clothes pressing, local carpets and confectionary making, barber shops, shoe making and repair shops, etc. No specific programmes for the development of this group of activities has been organised by the ONFA. There is an existing programme of promoting small improved bakeries mostly in small towns and this could be extended further down the rural stratum. It is hoped that when the "Rural Development Centres" programme is oriented towards the non-farm sector, and a basic credit scheme for such small enterprises is established, it would be possible to promote these activities more extensively.

3.19 As stated earlier, the scope of expansion of this entire group of activities is considerable, and will help improve the quality of life in rural areas considerably.

e. Building Materials Industries

3.20 The first studies carried out on rural construction activities in Iran, indicated that there were some major constraints to development of this sector. Even the large budgetary allocations made for infrastructural works (for canals and distributaries,

roads and public buildings) in rural areas in the Fourth Development Plan, had been used to the extent of about 30 percent only. The study revealed the three main constraints as: (a) shortage of contractors to take up construction work in rural areas, (b) shortage of building materials production activity in rural areas resulting in the purchase and transportation of even bricks and tiles from urban areas, and (c) limitation of construction skills in rural areas. The study also revealed that for equivalent quality of buildings, rural construction costs were higher than in urban areas. A possible area of research was in finding out suitable rural buildings designs which does not follow urban styles and standards.

3.21 To overcome the problem arising out of lack of contracting organisations, a study was carried out and a decision taken to promote a few "construction labour contracting cooperatives" on a pilot basis to take up simple types of rural construction contracts, such as on rural roads, earth work (canals and embankments), etc. But promotional activity in this field has been postponed for the time being. In the matter of developing rural construction skills, mobile training programmes have been carried out, but this activity has not as yet been placed on a firm footing with standardised programmes, as such a programme can best be carried out on construction sites.

3.22 The main thrust of ONFA's programmes in the rural construction sector has been in the direction of establishing and promoting building materials industries. So far 28 brick kilns of the Hoffman type have been established, with an investment of about Rials 8-12 million in each and a production of 30-45,000 bricks per day. Some of them are now being converted to oil-firing and in some localities they will be converted to gas-firing as gas becomes available at the site. Studies have been completed for the setting up of several rural plants for gravel, cement-concrete bricks and building components, gypsum plants, etc. It may be noted that because of ecological conditions prevailing in Iran, burnt-clay bricks cannot be produced everywhere and therefore alternative building materials have to be considered. At present the possibilities of using extensive volcanic materials available in Iran are being examined.

3.23 The rural building materials industry can not only supply rural needs but also urban ones as well. As regards the rural component of demand, this can be maintained at a high level depending on the level of infrastructural investments budgeted for the rural sector, also on the growth of population and incomes.

The latter will largely be in the form of private housing. Considering the type of housing that exists in rural areas (in terms of space, ventilation, sanitation and earthquake resistance), this sector will have the propensity of taking advantage of all incentives as may be provided. Thus governmental credit and promotion schemes are needed for the rural housing sector as much as in the urban areas, and this will reflect on the demand level of construction materials and promote such production.

IV. A VIEW POINT ON RURAL INDUSTRIALISATION

a. A Conceptual Understanding of Rural Industrialisation

4.1 For several known and unknown reasons, industrial activities and urban society have been inseparable, just as much as agricultural activities and rural society. Therefore the question arises, is the term "rural industrialisation" inconsistent in concept and theory and can it ever be made a reality? Does an urban environment promote industrial development or does industrialisation lead to urbanisation? Would a stress on rural development damage industrial growth in the long run? The answers to some or all of these questions depends partly on how we define or understand the main characteristics of urban and rural societies. There is however no escape from the fact that urban and rural localities in any country, are intrinsically inter-related socially, culturally and economically, and in any dynamic situation there is a great deal of flow both ways of men, materials, services and ideas. They cannot be strictly compartmentalised for development action particularly since in any such compartmentalisation there will be a grey area which is neither rural or urban.

4.2 Therefore all rural development action in physical and economic terms has ingrained in it basic components of urbanisation, i.e. diversification of the rural economy, and bringing the benefits of urban life (education and health services, cultural and amusement activities) nearer to rural residents. Similar all urban development has ingrained in it basic components of ruralisation in the sense that city planning in spatial terms is done in the form of neighbourhood units to promote a feeling of a well-knit small community, and the introduction of parks and greenery is done as is found in the countryside, and garden plots are made available to urban residents for them to feel closer to land.

Yet there is something in the urban environment which promotes a sense of challenge, change and dynamism. It is often the rural migrant to a city who after a period of wage work, establishes the small industries and pavement shops well known in the developing world, but who hesitates to take this challenge in his rural environment. Closeness to the demand centre and face-to-face relationship with his client has no doubt something to do in this process.

4.3 The question basic to our concern is, can rural development programmes create and nurture this change and develop this sense of challenge even in the small-man who prefers to risk his home, comforts and traditional livelihood to take up the challenge in an urban locality? There is no question that a first step is the revamping of traditional institutions in the agricultural sector which have resisted change and been exploitive in nature. Agriculture has also to be modernised technologically to improve land and labour productivity in line with the demands for food and pressure on land and water resources.

4.4 Side-by-side, the exploitive institutions in the rural non-farm sector need to be changed. These are largely middlemen-institutions which have dominated the scene for centuries without any interest in long term investments in this sector. New types of entrepreneurs and new ownership institutions have to be fostered. New incentives, and new resources will have to be made available for this rural sector. New linkage mechanisms both horizontally and vertically have to be developed.

b. Recipient Groups and Their Incentives

4.5 Studies carried out by ONFA and the ILO Project Team on rural communities in Iran, to locate the nature of entrepreneurial interests, resources and skills existing in such communities for taking advantage of the Government's interest in rural industries development, indicates that: (a) in rural groups which have acquired some financial resources they are unable to grasp the nature of risks and benefits of rural industrial proposals, particularly large ones, where the markets are outside the community, and the technology not known to them, and would therefore like such enterprises to be established and operated for them before they can decide on a commitment, and (b) among individuals who are already engaged in some form of non-farm activities or are interested in them, they would like to receive training and the benefit of strong support services as their resources are limited. The size of financial resources seems to influence favourably investment decisions.

4.6 This might be the general situation in several other countries. It is also true that this shortcoming cannot be overcome either in the agricultural sector or in the rural non-agricultural sector by government ownership, management and operation of all forms of enterprise. Just as in life, a cell is needed, so also in industrialization the basic cell is the small self-propelling unit which provides the starting point and backbone for all future development. Thus the starting point for all rural industrialization effort is the small enterprise, for which the market is within the reach and understanding of the entrepreneur, and the technology and operations are within his control. The rural "trade industries, productive and technological services" provide the ideal activity group for such a start.

4.7 However the rural sector should not be seen as limited to the availability of low-level of entrepreneurial talent only. There are four or five levels and types easily identifiable. They are:

- a. The traditional crafts group, whose members are largely producers supplying their products to middlemen who undertake the business side of the operations, or they are craftsmen who have a small direct clientele.
- b. New entrants into the rural labourforce who belong to farm families and have been exposed to various types and levels of modern vocational and technical education and training.
- c. The middlemen themselves, who have entrepreneurial skills used on exploitive types of operations, but as they get squeezed out of such operations, have in many instances set up small-to-medium sized rural industries, using the services of technicians or master-mechanics and of wage labour.
- d. More prosperous agriculturists who stay in rural areas and have investment funds to spare. This also applies to retired personnel (government, business, defence forces) with investment resources.
- e. Agricultural institutions such as farm cooperatives, or farm joint stock companies which could be considered as medium-to-large in size of operations.

In any major programme of rural industries development, the total spectrum of all entrepreneurial and management resources need be used. Over a period of time, the smaller enterprises will grow into medium sized ones, and the medium sized ones will become more efficient and prosperous with improvement in management skills.

A single pattern of entrepreneurial development for rural industries programmes will be too limitative in scope. The traditional crafts group of category (a) needs to have new types of ownership or service institutions such as cooperatives developed for and among them, to enable them to reach sources of raw materials supply and markets more directly. The small entrepreneur of category (b) would need financial resources as it is basic to his entrepreneurship development. The entrepreneurs of (c), (d) and (e) categories would need technological advice and guidance and information on marketing prospects. In Iran, while these five entrepreneurship groups have been identified, the programme is not as yet comprehensive enough to provide selective services to all of them according to the above mentioned needs. The groups touched by the programme are largely group (e), and partially groups (a) and (b).

c. Vertical and Horizontal Dimensions of the Programmes.

4.8 The Iran experience so far indicates that the vertical dimensions of the programme on rural industries needs to be flexible enough to combine with raw materials-end activities if need be (such as agriculture, mining and quarrying), or at the off-take end (such as building materials manufacture with buildings construction, or implements manufacture with repairs and maintenance services). The essential consideration is to identify the factors that determine the range of activities to be combined in order to provide economic viability.

4.9 In terms of horizontal dimensions, the governmental promotion activity for rural industries has to be related to infrastructural development (possibly with area planning and area development and also locality planning in which rural workshop clusters and industrial locational concentration are incorporated), training activities, credit servicing, organisational assistance and marketing assistance. Whether a single agency can handle the whole group of rural non-farm activities, or there need be various development agencies for component sub-sectoral programmes, under one umbrella agency with a coordinating role is yet to be decided as the experience is not adequate enough to enable a decision one way or another. Widening the responsibilities of a single agency has not been without problems in the situation.

d. Appropriateness of Administrative Structures

4.10 The experience in Iran indicates that a programme for rural industries development in order to be effective needs to be placed at least in its initial stages in a Ministry closely linked to rural development rather than in the sectoral Ministry concerned. This is because the promotion effort for rural industries is so different from conventional patterns of development in the industrial sector, and it's planning is closely linked to socio-economic-spatial planning of the rural sector. Therefore wherever "integrated rural development programmes" with this width and depth of programmes exist, it seems to be the appropriate place for rural industries programmes to be located. It has however to be clearly understood that such a programme requires resources, manpower, institutions and back-up organizations suited to coordinate and provide services to a decentralized operational activity. It is in respect of the back-up organizations that a close link with the sectoral ministry is needed.

IRAN RURAL INDUSTRIAL DEVELOPMENT PROPOSED FOR
5TH DEVELOPMENT PLAN PERIOD FOR FARM CORPORATIONS
PRODUCTION COOPERATIVES & COOPERATIVE UNION

SL. NO.	PROJECT	PROPOSED CAPACITY	TOTAL NO. OF UNITS
1	Poultry Farm (Meat complex)	1-1.5m pieces/year	9
2	Poultry Farm (Eggs Production)	102000 per year	9
3	Turkey Farm (Meat Production)	1000 ton/meat	1
4	Dairy Farm (Milking Complex)	500 Head	2
5	Dairy Units (Milk Collection Centres)	10 ton/day	5
6	Cheese Making	1200 tons/year	5
7	Wheat Flour Mill	5-10 tons/day	12
8	Rice Mill	5-10 tons/hour	3
9	Animal & Poultry Feed Mill	5 tons/hour	6
10	Alfa Alfa Flour Mill	1000 tons/year	1
11	Olive Oil Extraction Units	1000 tons/year	1
12	Saffron Packing Unit	200 kg/year	1
13	Legumes Cleaning Units	4 tons/hour	1
14	Fruits & Vegetables Canning Units	1000 tons raw matr/year	3
15	Cucumber & Other Vegetables Pickling Units	500 tons/year	3
16	Fresh Fruits Packing Units	1000 tons/year	1
17	Tomato Paste Units	600 tons/year	1
18	Lime Juice Units	1800 tons/year	1
19	Dates Cleaning & Packing Units	30,000 tons/year	3
20	Fish Farms	Several	
21	Honey Refining Units	100 tons/year	1
22	Ice Making Units	5 tons/day	11
23	Wool Washing and Dyeing Plants	200 tons/year	4
24	Sericulture Units (Pilot)	10 hectares mulberry	4
25	Silk Reeling Units	100 tons/year	1
26	Cotton Ginning Units	30-40 tons/year	12
27	Garments Production Units	350 per day	10
28	Brick Making Plants	8 million/year	25
29	Cement Blocks Making Plants	3000 blocks per day	2
30	Drip Irrigating Systems Production Unit	500 tons/year	1
31	Sugar Factories	1000-2500 tons/year	6
32	Moghan & Mohabad Agriculture-Industry Complexes		-

APPENDIX J (CONTD)

OTHER COMPONENTS OF RURAL INDUSTRIES PROGRAMME
FOR IRAN'S 5TH DEVELOPMENT PLAN

1	Rural Vocational Training Centres	10
2	Carpet Weaving Centres (Promotion through Supervised Credit)	18
3	Carpet Weaving Workshops	7
4	Gelin Weaving	several
5	Bamboo and Cane Weaving	3
6	Textiles Weaving Centres	3
7	Silk Weaving Centres	2
8	Sericulture Units	2
9	Cloth Printing Centres	1
10	Dyeing Centres	4
11	Tailoring & Knitting Promotion	8
12	Glass & Ceramics Centres	1
13	Wool Spinning	several
14	New Crafts	-

APPENDIX II

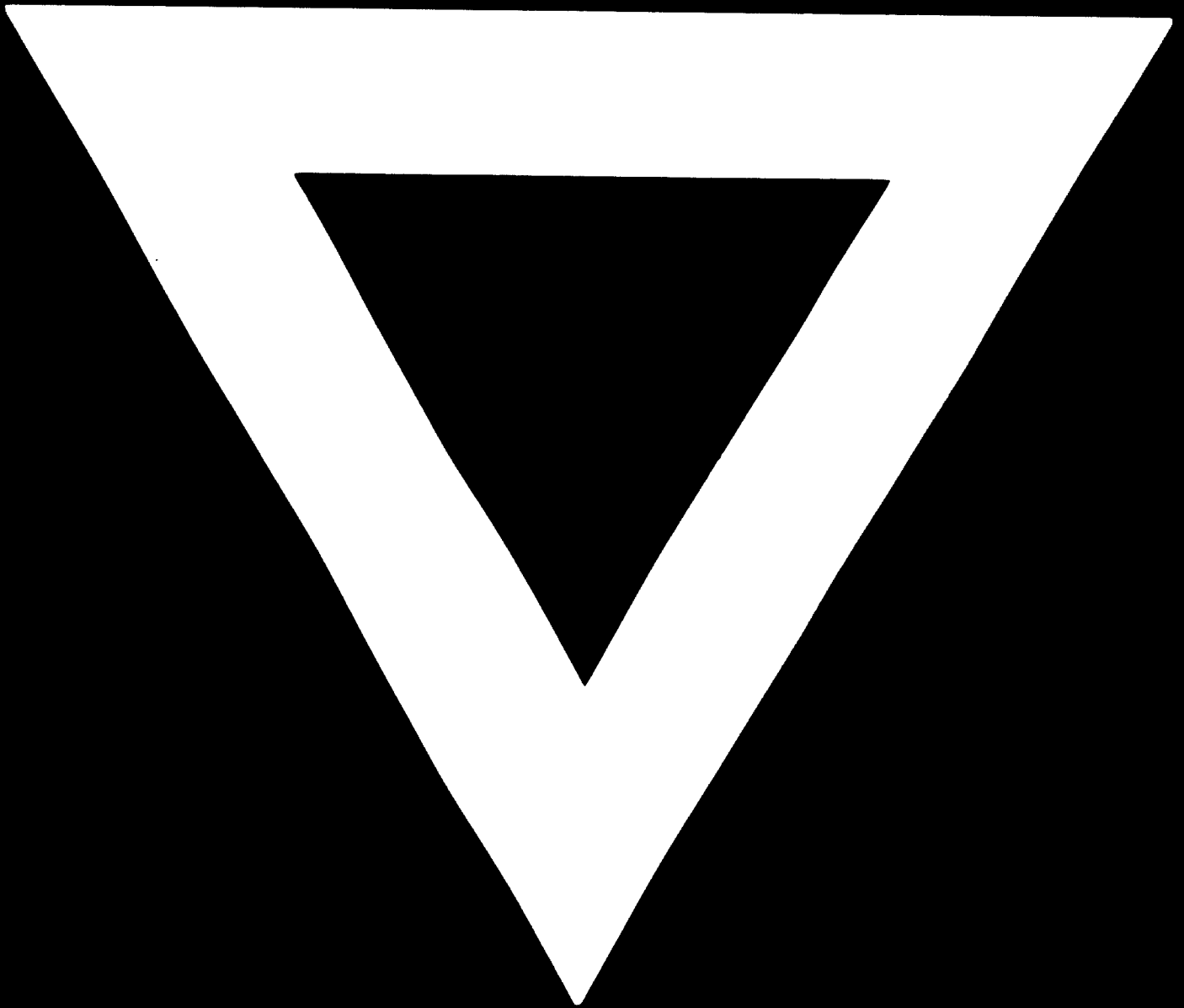
ESTIMATED SUMMARY BUDGETS EXPENDITURES ON
RURAL INDUSTRIES PROGRAMS IN IRAN

(See Para 3.4)

		<u>APPROX. Rls. (\$)</u>
1. Average Annual Budget Provision for ONFA Headquarters (Staff Misc)	...	Rls. 140,000,000 (\$ 2.0 million)
2. Average Budget for Non-commercial development activities (training, extension, experimental development)	...	Rls. 110,000,000 (\$ 1.6 million)
3. Investments and commitments made on rural industries in Farm Corporations and Cooperatives (1973-1977)	...	Rls. 2,220,000,000 (\$ 31.0 million)
4. Investments and commitments from ONFA Funds (1972-1977)	...	Rls. 470,000,000 (\$ 6.7 million)
5. Average Annual turnover in Commercial Activities of ONFA	...	Rls. 9,000,000 (\$ 1.3 million)



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