HANDICRAFT DEVELOPMENT IN LADAKH
An Approach Paper

Mohammed Deen Darokhan
Director, Desert Development Agency, Leh, Ladakh.

Summary
Traditional local handicrafts could make a great contribution to the prosperity of individuals and Ladakh as a whole. There is now a good potential market among tourists, but better quality is essential, especially in luxury goods such as pashmina shawls. Improvements in training, technical equipment, cooperatives and marketing are proposed.

This paper is published with the aim of explaining the great potential for income generation provided by local resources and personnel in Ladakh through the production of handicrafts. The raw materials and skills are rapidly available, and scope for marketing, both locally and for the export trade is considerable. Opportunities are available to people in urban and rural areas alike.

The department of handicrafts and industries and indeed other organisations have been trying to develop these skills for many years, but because of some inherent problems, little has been achieved.

One of the reasons for the lack of such development may well have been due, in the past, to the isolation of Ladakh from the outside world because of its topography. Such an excuse so longer exists since the opening of road and air communications to Ladakh, bringing in tourists and allowing the Army to establish a permanent and plentiful presence there. The main — perhaps the only — constant export from Ladakh over the last five or more troubled years has been its valuable animal fibre from the pashmina goat and the antelope.

Even these, though have been exported in the raw states, no attempt being made to send finished products, or to try and enhance the quality of fibre before despatch.

The situation has now changed, as a greater awareness of the needs of development has become apparent. It is time to examine the weakness of the existing training, production and marketing systems, and to establish the proper links between local industries, integrating them into developmental planning processes. It is also time to upgrade skills, perhaps introduce new ones, and make use of technology

available to improve production. Finally, it is important to try and understand how the climate, topography, lack of power and illiteracy bear upon the problems that Ladakh faces, and find measures to minimise their disadvantageous effects.

TOPOGRAPHY

Ladakh is situated in the Northern part of India, and is spread over an area of 45,110 sq. km but with a population density of only two persons per sq. km. Inhabited areas range from 8,000 to 15,000 feet above sea level. Winter temperature can fall to -30 degrees during the months of December to February and in the months other than June to September, sub - zero temperature are frequently recorded. During summer the temperature can rise to 20 degrees Celsius. Rainfall is less than 100mm annually, making the climate generally dry and cold. There are 112 inhabited villages, scattered over a vast area, with sometimes 20-50kms separating them.

THE PEOPLE AND THEIR OCCUPATIONS

There are 68,380 people in Ladakh, of whom 59,662 live in rural areas, and only 8,718 live in urban areas (Census 1981). Of these, 17,415 are cultivators, 2,191 agricultural labourers, 1,443 forestry and livestock breeders, 546 constructors, 735 in commerce, 306 in transport business, 760 in the manufacturing services and 6,439 in other services. Those in work form 43.55% of the total population, while those without work amount to 29,586 in rural areas, and 4,339 in urban areas. (Census 1981)

The dependence of a large portion of the population upon agriculture, forestry and animal husbandry, as a means of livelihood, will be noted. This is not suprising in view of the vast areas of land available for cultivation and grazing. Utilisation of this land is limited, however, by the lack of rainfall and insufficient irrigation, and the harsh topography in many areas will not allow any of these activities to take place.

PRODUCTION OF HANDICRAFT RAW MATERIAL IN LADAKH

The main raw material produced in Leh District, for handicraft purposes, is wool/fibre. The average quantity produced in one year is as follows:

Pashmina	30,000 kg
Wool	1,42,000 kg
Mohair	5,000 kg
Goat hair	20,000 kg

Pashmina. This is one of the softest of animal fibres. It is produced by the Changra goats, in Ladakh, during winter. A comparative study of its quality in relation to the fibre of other pashmina goats is as follows:

Country	Breed	Fibre Diam.	Staple Length	Colour
Russia	Predonskays	18-19μ	8-12 cm	grey
China	Xinjiang	15μ	4-5cm	white
Mongolia	Koigurvansakhan	16-17μ	7-10cm	grey
Ladakh	Changra	10-15μ	3-7cm	white

Ladakh produces one of the best pashmina fibres in the world. There is further scope for a production of 10,000 to 15,000 kg. of pashmina from goats in the areas other than Changthang. At the moment, because of the short staple of this fibre, its production is not seen as commercially sound.

More than 95% of the 30,000 kg of pashmina presently produced every year, leaves the District. Traditionally, the pashmina trade has been controlled by Kashmiri traders, known as Tibet Baqals, who generally purchase the fibre at exploitative rates. Recently traders from Himachal Pradesh have been going to Changthang direct, advancing money to the breeders before harvesting takes place, and taking away the raw fibre when produced. Alternatively, these traders offer domestic goods as barter for pashmina. However, the majority of pashmina goes to Kashmir from Leh, or from Himachal Pradesh.

Wool. The wool produced is medium grade, suitable mainly for carpets. The Changlok breed of sheep has very long fibre-up to one foot-which makes for better and easier spinning. Wool from Leh District has a low grease content in comparison to other breeds in the world. Most of the wool is white, but black, grey and brown colours are also produced.

More than 15,000 to 20,000 kg of wool leave the District for Himachal Pradesh each year. More of this is used to make pattu, a negligible amount of sweaters, socks, gloves, caps etc.

Mohair. Mohair is produced from a breed of goat known as Angora and its crossbreeds. 5,000 kg of mohair are produced in Leh each year. This is a little known fibre to the local people, though they are now acquiring a taste for it. Its most common use is for decorative fabrics, and for blending with ordinary wool.

Goat Hair. This hair is known as "*Rawi*" in Ladakhi. Traditionally people use this hair for making challies (a rough blanket), barley bags, ropes and papu shoes.

THE PRESENT POSITION & STATUS OF HANDICRAFTS AND SCOPE FOR DEVELOPMENT

In this paper only a few of the main handicrafts will be considered. These are:

Wool based handicrafts: pashmina shawls, woollen pattu, sweaters, socks, gloves, caps and carpets.

Thangka making.

Wood carving.

Metal working.

Pashmina The value of the fibre is determined by its staple length, colour and diameter. Currently, the best prices are paid for white fibre, with a staple length of more than 5cm. However, even the best prices offered in Ladakh fall far short of the real value, and the small farmer remains hostage to the whims of the middlemen. Until such time as some form of competitive purchasing is established, the situation is unlikely to change for the better. Cooperatives could provide such competition and if effective would encourage the small farmers to produce more pashmina.

In addition to staple length, colour and diameter, other factors will obviously affect the decision of any purchasers to invest their money in sources of Pashmina. These are:

The yield, and the ratio of fine fibre to coarse hair and waste material.

The cleanliness of the fibre.

The quantity of pashmina available and nearby alternative sources, if any.

Wool garments and carpets. 80-90% of the 142,000 kg of wool produced in the district is utilised locally to make the items already listed above.

If any new progrmmes were to be introduced e.g. knitting of sweaters, making carpets etc. there would be a real likelihood of depriving the existing wool-users of their raw materials, as there would not be enough wool for all purposes. Any such new programme would therefore require that more sheep be produced. Pastures are available for an increase of livestock, though not in Changthang. There are, however, many areas where the numbers of flocks have been significantly reduced during the last three decades, which could again provide effective grazing. If necessary, wool could be imported for the pattu, leaving the local product to be used for making marketable items attractive to foreigners and visiting Indians alike. While visitors might wish to buy the relatively expensive

Pashmina shawls, they are more likely to purchase less costly items especially if these are well made. Whatever changes are made to the existing local wool industries, however, it would be necessary to ensure the survival of the art of pattu making in the villages.

Like pashmina fibre, wool is sold on a whole-sale basis or is used, occasionally, as a barter for other goods or services. There is a need to organise a retail wool counter, on the lines suggested for pashmina, in Leh town. At the moment there are very few shops selling wool at retail prices.

Rawl goat hair. There is a huge production of goat hair, both from the Changra and other goats. The 30,000 kg of raw pashmina contains 18,000 kg of pure pashmina, and 12,000kg of goat hair. At present this hair is used for making ropes, barley bags, shoes and challies. Much is wasted in the process of de-hairing pashmina. A closer look needs to be taken at the uses to which this wool is put.

Thangka making and wood carving. The raw material required for making thangkas is readily available and is cheap. The base is made of tricot, and normally a stone colour is used, as it does not fade. In the expensive thangkas, pure gold powder is used for painting.

Wood carving is done in the traditional way, and wood is reasonably plentiful. *Choktse* (tables) are a speciality.

Metalworking. There is little to be said about this except that the art is dying and needs to be revived.

PRODUCTION

Pashmina shawls. The shawls produced in Ladakh are not standardised in weight, dimension, colour, or quality. The present estimated production from all sources, is about 500 a year, and these are produced in an unorganised way. Despite this, the best of the shawls are in high demand.

There are seven main processes involved in making pashmina shawls:

1. Grading of pashmina by colour and quality, if this has not already been done by the breeders. 2. Dehairing. 3. Combing/Spinning. 4. Weaving. 5. Clipping. 6. Finishing. 7. Dyeing.

Wool grading. Fibre colour is an important factor when assessing the value of pashmina. This point is not sufficiently recognised locally, to the extent that fibres of mixed colours are used when making shawls; to the obvious detriment of their finished value. Grading, both for quality and colour of pashmina should either be done at source or the raw material should be pooled and graded

centrally. The result would be a far greater uniformity in the production of shawls and consequently a better price for the finished product. It would be a mistake to allow colour grading to take place at small manufacturing units, as this would lead to wastage and a lack of standardisation. For example, at present, because of poor grading, grey and brown fibres are not accorded the higher value that their rarity should confer on them. It would not be difficulty to train producers to recognise the standard required, until such time as the premium prices paid for properly graded fibre, dictated their own requirements.

One of the problems has been the lack of a retail counter for the sale of raw pashmina in Leh. Traditionally pashmina fibre has always been sold wholesale, in quantities far beyond the demands and the pocket of individuals to purchase small quantities of fibre, which they could then, according to their abilities, spin and de-hair. This, of course, they would only do if they were ensured of a market, or wished to use the fibre for their own weaving purposes. If, then, the same retail counter was obliged to buy back the finished fibre at a realistic price, the market would be assured, with the result that a large number of people would be encouraged to take up the work.

Another problem that has seriously hindered the production of shawls by individuals or small units, has been the cost of the raw material. Few have the funds to purchase enough pashmina to make more than two or three shawls at any one time.

It is appreciated that any change in the present system and processes of the pashmina fibre trade, will take time to implement. By no means all the fibre can be diverted from the middleman to individuals and units in Ladakh, even when the new system is working at full capacity. The transition must be slow, both to allow for an essential consultation, education and training of the people, as much as to permit the middlemen to adjust to the decline of their business.

De-hairing. This is the most difficult task in the process of making shawls. Separating the fine fibre from the coarse guard hair takes much time, and can only be done by those who have good eye-sight. This, by and large, confines the task to those aged between 18 and 45. However, sometimes whole families can assist in de-hairing, which does not require much training, although it does require considerable practice to acquire any dexterity in the skill. Some figures below may illustrate the tedium involved in de-hairing 30,000kg of Pashmina annually.

One skilled man/woman can de-hair 150-180 gm in 6 hours.
1kg of raw pashmina will take about 6 days to de-hair.
30,000 kg of pashmina will take 180,000 man/days to de-hair.

After de-hairing the pashmina is soaked overnight in a rice-flour solution. Next day the pashmina is dried when it is much easier to identify the true colour of the fibre. It should be noted, however, that this process is much more time consuming than the less professional methods applied in Ladakh.

The efficacy of de-hairing depends on the quality of the Pashmina and the effectiveness of the worker. It takes from one to two months for a worker to become really familiar with the work.

At present, the District Industries Centre, Leh, pays only Rs.25 for de-hairing 1kg of pashmina, which, on a full time basis takes about 5 days. Some agencies pay Rs.50 - 60 per kg. The low de-hairing rates are the main cause for poor work, which results in the finished shawls having an unacceptably high content of coarse fibre in it.

There is much scope in this process for improvement, laborious and tedious as it is. One of its unattractive aspects, which ought to be faced, is the hazard to health caused by the dust given off while de-hairing. Other health problems arise as a result of the hours given to the work: among these are back pains and eye-strain. It is not a job for elderly people. The first task must be to raise the rates. These should be based, not on the number of kg. de-haired, but on the amount of coarse hair left in the fibre after de-hairing, as judged by samples already graded for their hair content.

Spinning. In Ladakh nearly all the women know how to spin, but with different degrees of skill. It is quite a simple art, conducted on a drop spindle. On the whole, spinning is done for domestic needs only, using the wool that the household produces. Those living in urban areas would have to purchase their wool.

The quality of spinning is the crucial factor in the production of shawls, and this is variable, depending on the experience and application of the spinner. Fibre length plays an important part in spinning, the longer staple being easier to spin, and producing a finer thread. The average required length is 7cm, but anything less than 5cm produces a rougher and thicker yarn. Most shawls are made of a blend of the long and short staple, and this detracts from their quality, to allow the spinners to produce a finer thread.

To spin well, training, experience, dedication and good quality pashmina are required. The spindle could be improved in size and shape, and so could the pot (bagur). These items are hand made, often by the spinners themselves, and traditional models. Often the same spindle used for wool is use for pashmina. Of course this so-called drop spindle is not nearly as effective as the spinning wheel (charkha) which produces a finer thread,(and - importantly - can thus produce

more shawls from the same quantity of fibre) but there are solid reasons why this may be difficult to introduce into Ladakh. These are:

It does not fit into the culture and traditions.

It is expensive.

It occupies space.

It is not readily portable. Ladakhi women are used to meeting at selected gathering spots to talk and spin. When they go to the fields they sometimes take their drop spindles with them, which they employ while resting from their agricultural labours.

The preparation of the cone is much easier on a drop spindle than a charkha. No-one, at the moment, possesses a charkha, whereas in Himachal Pradesh they are fairly common, while differing from the standard one by having a small disc near the base of the spindle. Until recently the spinning of pashmina has never, in Ladakh, been viewed as a source of income. Women in Leh have seldom spun and recently, some spinners in the rural areas have abandoned their skill.

Fixed rates for spun pashmina, given by the District Industries Centre, leave little incentive to produce high quality spun thread. Fine spinning takes time and care, and should be rewarded accordingly. Too many spinners work as fast as they can, in pursuit of as much of the flat rate as possible.

The time factor involved using the drop spindle

1kg of de-haired pashmina takes one woman (usually) 15-20days to spin.

18,000kg (60% of the total) requires from 270,000 to 360,000 (wo)man days to spin.

18,000 kg will require the services of 900 to 1200 permanently employed spinners working 300 days in the year.

Weaving

The fly shuttle is used for shawl-weaving in Ladakh. Before the yarn is placed on the loom, it has to go through a twisting process in order to reduce the weak strands in the thread.

Preparation of the warp has been poor in the past, which led to tension related weaving faults. Except at Government Centres, no warping rams are available. These are very efficient and can prepare ten shawl warps to one prepared by the local system. Using the latter, there is a wastage of about 50gms thread on each shawl, as opposed to a loss of 50 gms on ten shawls when using the warping ram; this saves a significant amount of thread, and becomes thoroughly economical when one considers the cost of a warping ram is only about Rs.1500

The following points need immediate consideration:

One warping ram is required in each village at the local

community centre.

Proper training must be given in the preparation of warps.

Looms. Fly shuttle looms are used both in Kashmir and in Ladakh. There is scope for improvement in the looms, and this can be done locally. Such improvements will be required to meet the demand for finer spinning, by which the best shawls are produced. Michael Henderson, a consultant to J & K Handloom, Cooperation, in the report under the title "Pashmina Shawl Weaving in Ladakh" has recommended discontinuation of the steel heddles in the shaft as soon as possible, because in his view, it is totally unsuitable for this type of yarn. The present loom needs a slight improvement to reduce the weight on the thread-especially the finer thread - in order to avoid cuts when weaving. This problem might be solved by dipping the thread in rice gruel, as is presently done in Kashmir.

Kani shawl looms are reported to be different from those in Ladakh in that they make use of bamboo seeds.

At present, in Ladakh, there are only about ten looms owned by local people, and these are in use part time only. There is, however, a good demand for the purchase of looms which cost about Rs.3,000.

One local shawl requires 500-550 gms of pashmina yarn for its production. It would weigh up to 450 gms on completion. In Kashmir, 1kg of yarn will produce three shawls, each weighing 300-325 gms.

One person can weave one or two shawls in a day, so an annual production of 30,000 shawls would require 15,000 to 30,000 man days, i.e. a workforce of 50 to 100 permanent weavers (working 300 days a year).

Clipping. Clipping is not done properly. It is carried out, on the upper side, while still on the loom and on the other side after the shawl is removed from the loom. There is proper frame for clipping, which can be made for the purpose, without this shawls can be badly damaged.

Finishing. This is rarely done in Leh, as there are no facilities available in the private sector.

Woollen pattu There is a high demand in Ladakh for this fabric (strips several metres long and about 25 cm wide) which is used for making the Ladakhi *gonche* (overcoat). At present almost 90% of pattu is made by the people themselves. They normally buy Changlok sheep wool for preparing the warp, and the wool from their own sheep, which is slightly finer, is used for the weft. Nearly all the ladies of the household, except girls going to school, do the spinning. There are many weavers in each village, using local looms, who will do this work at cheap rates. The only problem connected with the

pattu industry is that of dyeing. The colours tends to fade. Sales, however, are good.

Knitting This is not an organised industry, but most of the ladies in urban areas know how to knit and make socks, caps, gloves and sweaters, mainly for their own consumption. These items are rarely for sale in the markets.

Carpets Ladakhis do not produce a significant number of carpets, as the market is dominated by the Tibetans, who have better quality carpets, at cheaper prices for sale in Leh.

Thangkas. These are traditional paintings, on fabric, that hang from the wall. Thangkas are virtually obligatory components of the *chotkhang* the private place for worship for Buddhist families. Materials for making thangkas are scarce, and they take a long time to complete. Each village will have the skill to make the hangings of the few that are required, but there is no large scale production. There is a demand for more Thangkas locally, as those with the artistic ability to paint the religious depictions are few and far between, and require many years of training to reach any sort of perfection.

Choktse, the small table, is traditional to Ladakhi culture, and is required by nearly all families within the district. There are different qualities of this product, which depends for its value on the amount of carving along the three sides open to view, and the skill with which the carving is done. The fourth side of the table is open to accommodate the feet of whoever sits, cross-legged, in front of it.

Other handicrafts There are a few other items produced locally, but these are now rare. The only one of any note is the wooden phekor (satto pot) cups, which used to be made in the past, but are now seldom seen.

TRAINING AND FOLLOW-UP ACTION

Proper training and follow-up action are essential aspects of any improvements in the development of the handicraft industries. While training has been in progress for three decades or more, there is little visible evidence of it. Any follow-up action there might have been, has been out of step with the training itself and it a sad reflection on the whole process, that many people who have been trained in different crafts, may now be seen doing other work, and commenting unfavorably on the industries as a whole.

There are several reasons why this situation has come about, and a few of them are listed:-

Lack of proper leadership

This applies particularly to trainers/instructors. Much of the problem may be due to lack of supervision on the part of management,

and lack of motivation on the part of trainees who are selected simply to fill gaps in the vacancy lists. Even enthusiastic trainers can lose interest under these conditions. By and large, the standards of training are low and this reflects adversely on management, and trainers alike. The same can be said for any follow-up action, which is either mostly irrelevant or non-existent.

Lack of qualifying standards

No particular experience, background or qualification were required by trainees to take part in training. At the same time, because of high employment, there were few applicants, and courses were packed with any that could be found. Now the situation has changed, there is higher unemployment, and the committees that control courses can be more selective.

Lack of proper facilities in the training centres.

Very rarely are the training centres properly equipped, and the replacement of existing equipment is virtually non-existent.

Frequently training centres are located in very old buildings, dry, uncleaned and dusty. There is very little, if any, furniture and the trainees have to sit all day on the floor. The weaving centre in Leh, which might have been a model for other training centres, functions in relative darkness, whereas it is particularly important that good light is available to see defects in the cloth being woven. Besides there being little light, there is no heating system at all, which makes training in winter, with any sense of enjoyment or satisfaction, a virtual impossibility.

Low pay

Trainees are paid Rs. 100 a month, some deductions being made from this at the end of the training. With costs at they are, this is a very poor incentive to aspiring trainees.

Lack of advanced training/refresher courses for instructors.

It is important to provide these.

How matters may be improved.

The first step would be to draw up, for each craft a brochure, fully illustrated, describing the type of craft in simple terms, the benefits from being trained, the length of any course and the incentives offered to attend it, and the qualifications required (if any) from an applicant. This would need to be carefully explained to each applicant, especially, of course, the illiterate. Where possible, the candidate should be allowed to make a conducted tour of any courses in progress.

Selection for training must be based on the aptitude and qualifications of the applicant.

Selected candidates must be made to sign an agreement to complete the course, and continue working in the same craft thereafter for a specified period.

The pay must be increased. Part of the extra cost could be defrayed by the sale of the goods made by the trainee during training. Some of the pay could be deducted during training, in order to build up a lump sum, that could be used to set-up the trainee on his own after the course.

Incentives to attend a course might include the provision of food and accommodation for those who live far from the training centre. This is a system presently employed by the Tibetans at Choglamsar for their trainees.

A commitment must be made to obtain constant supplies of raw material, and find markets for the sale for finished goods. This means that co-operatives, or associations will have to be established or, where they already exist, revived, to organise and control these vital aspects, and to administer the training establishment.

Advanced training and refresher courses must be organised for the trainers/instructors. Similar facilities must be made available to those exceptional craftsmen who show interest and aptitude.

Good instructors must be encouraged and given status, salaries and promotion prospects. It is essential that they be supported administratively, and that there is an official, clearly appointed by name, whose task is to meet their administrative needs.

Training in handicrafts skill should not be seen only as preparation for full time employment in the chosen crafts. Many people can profit from the training to do part time work only, on completion. Advantage should be taken of trained workers in their own villages. An honorarium could profitable be paid to such individuals as an incentive.

Training centres must be properly equipped to a minimum standard. An inventory for a fully functioning training centre should be drawn up by Government, and this must be the authority for equipping and re-equipping training centres to the standard laid down. Instructors should understand that they are responsible for the training centre and its equipment, as much as for training trainees. Particular attention must be given to the provision of proper heating and lighting arrangements.

Supervision and Co-ordination. The need for good supervision cannot be over stressed. This applies to all levels of direction, from head of Government Department to the individual trainee. Almost equally important is the co-ordination of all departments and institutions involved, such as the District Industries Centre, Handicraft

Department and the financial department involved.

Improving the present standards of training. If the measures recommended above are fully implemented, the standards will automatically improve. There will be no room for poor or lazy instructors if proper supervision is carried out, and given material and moral support, the students themselves will probably demand higher standards. Instructors can be brought to Leh from Kashmir for shawl making, and from Dharamsals for carpet making to train instructors and to raise the standards generally. An element of competition between training centres will add an edge to the work, and this might be done by organising displays of work centrally, prizes being given for the best artifacts.

Duration of training.

Carpet making. At present only one year's training is given, whereas four years are required for a trainee to reach an acceptable standard.

Thangka painting. This requires four to five years training.

Shawl weaving. A trainee can make fairly good shawls with only six months training. The ideal is one year.

De-hairing can be learnt within one month, but the official requirement for training is one year.

Spinning. A trainee can spin fairly good yarn after five to six months training . Required training, at the present is for one year.

MARKETING

On present assessment, the crafts of making pashmina shawls, knitting sweaters, pattu weaving, thangka painting and wood carving could contribute greatly toward raising the income of the people of Ladakh, provided, of course, that the markets are assured and constant. It will not be sufficient to assume that the present market will absorb the greater number of goods produced by the renewed interest in making these crafts. Outlets will have to be sought both locally and outside.

Fortunately there is a growing interest by the outside world in the crafts of the Himalaya region and the unique art, culture and tradition of Ladakh expressed in its handicrafts will have great appeal. The Ladakhi shawl, for example is a lovely product, and is in high demand from Indians and foreign tourists alike. The attraction of a shawl made of pashmina is its lightness for those travelling by air. These and the other products will sell well, provided the quality of work is of a high standard.

Suggestion for improving marketing.

1. Standardisation in the production of all similar goods.

1. Standardisation in the production of all similar goods.

2. All finished goods should bear a label to show their authenticity, by whom made and the material used, e.g. "Shawl made in Ladakh from pure pashmina fibre". This should be certified by the Government or non-government body responsible for the production, and will act as an endorsement that the product has attained the required standard of quality.

3. Until production units are established, the Government should assist by securing markets for the items produced. This can be done by fixing a support price. When the production units are established and operating, the Government can withdraw.

4. Those items which are not easily sold, should be pooled at Leh, where they will be more open to public view. Advertisements in the local press and leaflets left in places frequented by tourists will help promote sales. There will be a need for a show room, with capable staff to explain details of production, prices etc. This could perhaps be combined with a museum exhibiting local handicrafts, used through the centuries for domestic and agricultural work. It would be essential, once created, that any such show room would be assured of a regular supply of finished goods.

5. Costs of products from Government training centres should be fixed at moderate levels, to make sure that products from the private sectors are not undermined. At the same time, inferior products should not be allowed to be sold, as these are a waste of raw material, and a poor reflection on the crafts that are being promoted.

Co-operatives, Associations and Agencies

Such organisations will be needed primarily to deal with the two essential aspects of providing raw materials, and of marketing the finished goods. A revolving fund will be required. It is appreciated that good co-operatives are not easy to run, but they are an important link in the chain of events between the provision of raw material and the finished product, and they do represent the participation of the people involved, providing a focal point for help, discussion, and for legitimate dissension. They also, of course, ensure a fair distribution of profits and stablise prices. While direction from an agency may be necessary in the initial stages of any new re-vitalizing of the handicraft industry, it will be the co-operative that sustain it.

Most Ladakhis are extremely busy in the summer months with their chosen ocupations, but have time on their hands in the winter. If co-operatives are well organised, they will be able to offer additional opportunities for income generation to those that would otherwise have little to do, by providing raw materials and market outlets. The Government can help this process by providing centrally located

markets.

Appendix A

Recommended Co-operative system

Advisory Board
Agency for Handicraft Development
Independent Co-operative Societies
Main society in Leh
Supply of raw material, and finished and semi-processed items.
Sale of finished semi-finished items.
Associated members from all villages producing handicrafts.

The raw material can be supplied against the cost of the finished article, and the price of the finished article fixed by the producer and co-operative together. The latter will add its own commission, and ensure a uniformity of price of similar articles that will satisfy both the producer and the consumer. Naturally, whoever manages the society will have to have the necessary commitment to the ideals of the cooperative, as well as a basic knowledge of all the crafts represented by it.

Costing 1 Pashmina shawl 3ft by 6ft

	Rs.		Rs
Pashmina fibre 1kg	400	to	600
De-hairing 1kg	25	to	50
Spinning 600gms	126	to	144
Twisting 600gms	10	to	10
Weaving	100	to	100
Finishing/Washing	20	to	20
Total	Rs.681.00	to	924.00

Sale price Rs. 1100 to Rs. 1500 for one pashmina shawl

Costing: 1 Carpet 3ft by 6ft

Wool yarn 7kg @ Rs.130/140	910	to	980
Cotton 1.5 kg @ Rs. 45/50	68	to	75
Labour 1 month	1000	to	1200
Total	Rs.1978	to	2255

Sale price less than Rs. 2000. It is not in demand because the quality is much lower than the Tibetan carpets which may be bought for the same price.

Knitting

Local wool for one kg	75	to	80
Spinning	50	to	50
Dyeing	50	to	50
Total	175	to	180

Sale price Rs. 400/600 per kg. Local wool is preferred in Leh, especially when it is dyed. This will sell very fast for making sweaters etc.

Thangka painting

Cost depends on the size, and of course the amount of detail in the painting. Prices reach about Rs. 3000, and it takes 3 months to complete a thangka.

Appendix B

Those consulted in the preparation of this report.

1. Sh. Sonam Dawa	Director, LEDeG Leh
2. Sh. Abdul Majid	Deputy Register, Cooperative
3. Sh. Ali Raza	Manager, Industries Dept. Leh.
4. Sh. Sonam Wancghuk	Secretary SECMOL, Leh
5. Sh. Tserig Stobdan	Supt. Industries Dept. Leh
6. Sh. Tsetan Spalbar	Supt. I.T.I. Leh
7. Sh. Rinchen Tundup	Manager, Tibetan SOS Handicrafts Training Centre Leh.
8. Smt. Rigzin R/O Mulbek	Pashmina de-hairer
9. Smt. Lal Dedi R/O Leh	Spinner
10.Smt. Yangchan R/O Leh	Spinner
11. Smt. Tashi Dolma	Weaver
12. Smt. Zenab	Instructor, Carpet Centre Chushot
13. Dr. Phuntsog	Laboratory Officer, Upshi
14. Sh. Abdul Qadir	Butcher

List of weavers of pashmina shawls - Leh

1. Disket	Tshangspa yurthung Leh
2. Zara Watul	Leh
3. Tsering Choskit	Changthang
4. Yangchan	Nochung Leh
5. Phuntsog	Lamagon Chanspa Leh
6. Laskit	Khema
7. Chewang	Ragsha Choglamsar
8. Tundup Yangskit	Housing Colony Leh
9. Tashi Dolma	,, ,,
10 Tsering Dloma	,, ,,
11. Sonam Deskit	,, ,,
12. Tseing Wakhama	Skalzangling.

List of spinners and de-hairers.

1. Ashey	Stagophelok Leh
2. Samstan Paldam	Stalam, Leh
3. Zila Juma Bhat	Zangsti Leh
4. Hajira	Tagophelok Leh
5. Rabi Juma Bhat	Zangsti, Leh
6. Maryam	Zangsti, Leh
7. Halima	Near C.M.O. office Leh
8. Zila Matto	Stagophelok
9. Aziz Saraban	Stagophelok