CHAPTER SIX

FACTORS OF ACCELERATION AND INHIBITION

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6.1. Introduction

Education cannot survive in a vacuum. It is affected by various environmental factors which can be both planned and unplanned. These factors can be related to person; Governmental plans and policies and various other social, political, and associated factors. It shapes and reshapes education according to these forces. It was most expected to be true for Home Science education being brought to its present status at the various levels of education including degree programmes. The various factors accelerating or inhibiting the growth were studied through library research, and the interview of the pioneers and leaders in the field of Home Science. These factors of acceleration included both - planned and unplanned and the factors of inhibition were only the unplanned ones.

6.2. The Planned Factors of Acceleration

The planned factors viewed here would be both - attempts made in India and contracts signed between U.S.A. and India for the development of the Home Science education. These were : Home Science Association of India; Technical Cooperation Mission; Ford Foundation Project and the United States Agency for International Development of the U.S.A. The objectives of these were the development of Home Science education at higher level in India and raise the standard of education by providing expertise in developing programmes, equipments and literature.

6.2.1. Home Science Association of India

Amongst the various factors contributing to the growth of the development of Home Science education Home Science Association of India was one of the important factor. The need of an Association was felt in 1951 by Smt. Hansa Mehta - the then Vice-Chancellor of the M.S. University of Baroda, and the founder of the Faculty of Home Science, Baroda; the founder Dean Dr.(Mrs.) Leela Shah (Mehta) and Dr.F.Kittrell the visiting professor from U.S.A. in the Faculty of Home Science. A meeting of the Home Scientists from India and Sri Lanka (Ceylon) was called in the Faculty of Home Science at Baroda, during the same

year. In this meeting grounds were prepared for the formation of an Association of Home Science in India. Miss Dorothy Pearson the then Professor of Nutrition of the Women's Christian College, Madras was given the responsibility of framing the Constitution.

In 1952 the Home Scientists met at Madras. The Constitution drafted by Miss Pearson was accepted and the Association was formed. The members were elected on the executive and in 1953 the association was registered under the Registration Act of 1851. It was later on affiliated to the International Federation of Home Economists. Smt. Rajkumari Amrit Kaur, the then Minister of Health, Smt. Hansa Mehta, the then Vice-Chancellor, M.S. University of Baroda and Smt. Hannah Sen, Ex-Directress, Lady Irwin College, New Delhi were its Patrons. Smt. Tarabai, the then Directress of the Lady Irwin College, New Delhi, was its first President.

The broad objectives of the Association were 'to raise the standard of Home Science education in schools and colleges and to help make happier homes and heal the families'. To fulfill these objectives which resulted into the growth and development of Home Science education in India, the Association held Biennial Conferences to bring the [illegible] Home Scientists together and provided opportunities for

bringing in the problems, issues, views, through papers, meetings and discussions for their solution. By 1974, the Association had twelve biennial conferences.

The Beginning Years 1952-63

During the beginning years of the Association issues like goals of Home Science education, areas of specialisation, points of consideration in the 'Planning of syllabi, and criteria for the establishment of Home Science as a vital part of the women's education at the secondary and college level were discussed. It also defined the long range goals of the Association so that it may move forward accordingly. Emphasis was laid down to define Home Science to influence on people that Home Science was a Science and not a craft. Issues like the importance of a Home Management house, and the Nursery schools were discussed. These conferences defined the four areas of Home Science Child Development, Clothing and Textiles, Foods and Nutrition and Home Management. Emphasis was laid down on establishing university level programmes. A need for developing postgraduate programmes in the different areas of specialisation was also emphasised.

The Association encouraged establishment and improvement of Home Making education in schools, training colleges, universities and out of school education. It made available

the reports, pamphlets and other publications related to Home Science to the masses and encouraged the raising of the researches and investigations in the various areas of specialisation in Home Science to help the different institutions in standardising and coordinating their courses. It also aimed at elaborating post graduate programmes in the universities because most of the programmes were available only at the undergraduate level. Those interested in higher education had to go out of the country.

By 1954 the status of Home Science was quite changed. It was established in many institutions for Intermediate, B.A., B.Sc., B.Ed. degrees. Therefore, there was a problem of obtaining suitably qualified staff due to lack of post graduate programmes.

It was suggested that Home Science education needed the inclusion of philosophy of education in general and Home Science education in particular. Hence, at the undergraduate level it was concerned with the values required for family living both in the personal and family development. The social, economic, aesthetic, managerial health education and the professional aspects in the study of child Development, Foods and Nutrition; Textiles and Clothing; Housing and finishing are included in Home Science education. The Home Science Association of India had been preaching the role of Home Science Extension in national

development. In all the Biennial Conferences enough place and thought was provided to the subject. Home Science was introduced in the Community Development Projects in India in May 1954. The Government of India signed an agreement for a National Home Science Extension programme, in April 1955.

At the request of the Ministry of Education of the States the Association helped them in planning and reorganising their courses at the different levels of education. The Association according to its aim of developing Home Science at the higher level of education and of raising the standard realised that many institutions which were teaching Home Science at the higher level of education required the assistance of expertise, books and equipment.

During those days the problem of developing Home Science at the higher level of education was felt. The problems were, expertise, staff, books and equipment. The Association, therefore approached the Government of India, Ministry of Education to obtain those facilities through the Technical Cooperation Mission because the problem of development of programmes and providing facilities; planning and equipping the libraries and laboratories were acute.

In this direction besides approaching the Government of India for the aid through Technical Cooperation Mission the Association also resolved in its Fourth Biennial Conference

meeting to appoint ten individuals who resided in the various states of India, as a consulting body for framing Home Science syllabus, setting up laboratories for the schools and colleges. After the completion of the term of T.C.M. the associations also managed for its revision for another two years.

By the years 1960 Home Science education was much developed. The concept of Home Science was changing and it was favoured as a science for the improvement of home and family living. The Ministries of Agriculture and Community development carried their programmes of development to the rural areas where Home Science was expected to play an important role in raising the standard of health and general education among the rural community. With all the rapid strides which Home Science had to be done for raising the standard of education and in the removal of several disadvantages which still existed. The derth of books, suitably qualified personnel specially at the higher level of education was a serious issue.

The Association in its Fifth Biennial Conference 1960 requested for the appointment of a Committee to look after the publications which could bring out authentic material. Need for a publication board was also felt to meet the needs of teachers and students of Home Science. A suggestion was also made to make special efforts for the training of the teachers and it recommended that double the number of teachers that were actually required then needed to be trained. Suggestions were made to

develop the Ph.D. programme and undertake research work as for the enrichment of the subject.

For encouraging a further advancement of the discipline the Fifth Biennial Conference in 1960 besides other resolutions forwarded the following :

1. The association to request the Ministry of Education to extend the University of Tennessee India contract of the T.C.M. projects for another two years.
2. To set up a Board of Publication for the publication of books and literature in Home Science.
3. The Home Science Association to organise refresher courses and workshops for schools and college teachers for Home Science in India.
4. The All India Home Science Association to appoint a Board to set up minimum requirement for Home Science teaching at all levels. This could be helpful as guide in developing Home Science programmes.

The Association also reviewed the burning problems of the discipline as the necessity for higher education - M.Sc., Ph.D., lack of qualified teachers and books for all levels of education.

The Association also revised the ways and means of achieving the goals of the association such as :

1. Encouraging the establishment of the Home Science education in schools, training colleges, universities and out of school programmes.
2. Publishing reports, pamphlets and other material related to Home Science.
3. Encouraging and also providing aid for research and investigation in the various fields of Home Science;
4. Standardizing and coordinating the courses of Home Science in different institutions.

By 1960 the Association had reached a level where the educationists expected the Association to look into the growth of the discipline. They suggested that the Home Science Association required arrangements of inservice preparation of Home Science Teachers and stepst to popularise the courses amongst the public in general and educationists in particular. To fulfill these it was suggested that the Association needed to bring in a promotion in the teaching of Home Science by organising short refresher courses, lectures, demonstrations, discussions, exhibition of text books and aids. The teachers of Home Science needed encouragement to utilise these. Suggestions to coax an improvement in the programmes at the secondary level was also made.

The association therefore, promoted Home Science education in schools and colleges and equipped women to serve as teachers, social workers and extension workers in Home Science. It held conferences, organised workshops, published reports and produced material useful for Home Science teachers.

1964-1974

The Association was by now 13 years old. The many-sided problems and issues for the development of Home Science education were taken to a greater extent through manyfold attempts. The association during the Conference of 1964 thought of resetting the goals of the association.

The objectives were redefined according to the changing needs of the family and society in line with the requirements of the social and economic units. It was also felt important to see that the subject matter provided in the discipline was in tune with our own culture and society so as to help provide appropriate opportunities to face the future problems.

The development of the discipline and its contribution could be seen from the proceedings of the Seventh Biennial Conference that : Dr.Nita Soysa, F.A.O. Regional Home Economics officer on the occassion of the tenth international

Congress of the International Federation of Home Economics held in Paris in July 1963, in her introductory remarks said; " The contributions which Home Science Personnel can make to the development of India is a challenge to this association. The President in her address referred to the fact that two members of the association have been requested to serve on two national committees. One, the national school Health Committee set up by the Ministry of Education, and the other set up by the Indian Council of Agricultural Research. This showed that Home Science has been recognized at a high level in the government. In the process of broadening and expanding their activities, Home Economics have been making their contributions to the various facets of Indian life."

A Home Scientist was accorded a seat as a member on the Education Commission's working group on women's education. The Home Science Association also presented a memorandum to the Commission highlighting the place of Home Science in the various stages of education. The Commission found most of the suggestions, valuable.

As, by now Home Science was established at the various levels of education and the Association thought of doing things profitable for all equally, they approached in the Ministry of Food and Agriculture in 1966 to include Home

Scientists on the Food and Nutrition Board. The Ministry of Education was also being constantly reminded to treat Home Science on par with other science subjects for the award of Science Talent Search Scheme. Several industries started consulting Home scientists on their needs.

The association decided to try for :

Job opportunities, with facilities for safe housing to be for Home Science Personnel to work in rural areas; college courses in Home Science to have greater emphasis on practical work in the rural areas, for which credit must be awarded in the university examination. Home Science colleges were requested to plan researches on the need of rural units. The Home Science Association stressed Home Science Colleges to produce an adequate number of teachers and to help conduct refresher courses for teachers from rural areas and to prepare guide line for the use of mass communication media for extension workers. It also emphasised the need for scholarship to be awarded for college level rural girls to prepare them in extension work in community development and suggested the central and the state governments to provide facilities and incentives to qualified extension workers and also colleges to extend facilities for higher education towards Bachelor's and Master's degrees.

In the later years the association insisted for the improved educational programmes in all areas of specialisation of Home Science through improving Curriculum, teaching techniques, teaching aids, improved evaluative techniques and researches. It also looked into the teaching of schools, colleges and at postgraduate levels and suggested accreditation of the programmes for the jobs.

6.2.2. UT/India Contract 1955-62

Home Science in India in 1950 was just getting roots and had to find an honourable place in the universities like the other faculties. It was during this period that the Home science Association was formed in 1952. With the birth of this Association Home Science got stimulus and expansion for raising the standard of the discipline. The Association made various attempts to achieve its aim of raising the standard and to help in its expansion. The Home Scientists therefore felt that many institutions teaching Home Science either as a degree or as a subject for teacher's training programme required technical aid in the shape of personnel, books and equipment for the purpose.

The association, therefore, approached the Ministry of Education, Government of India in getting these through the United States Technical Cooperation Mission (TCM) to India for assistance. Thus the University of Tennessea/India

contract was negotiated and came up. Two officials of the US, TCM in India Dr. Ruth E.Wright, Chief Education Advisor, and Mrs.Levice Elice Allen, Home Economist offered active support. An invitation was also extended to Miss Jessie W. Harris, Dean of the College of Home Economics of the University of Tennessee to come to India with the leaders of Home Science Education to study the needs and make plans to meet the rising demand of the institutions. This plan materialised after the team submitted its recommendations. The government of India vide Agreement 41 (March, 1955) requested the United States International Cooperation Administration "to provide technical assistance, training opportunities, equipment and supplies to assist in the programme of developing and strengthening Home Science education and research in Indian Colleges and Universities."

Due to this agreement two consecutive contracts were negotiated between the Government of India and the University of Tennessee. The first contract covered the period from 1955 to 1958 and the second from 1958 to 1962. The University of Tennessee had been interested in the development of Home Science in India for some years. This contract made provision for Home Science specialists to render services to selected colleges of India, training in the United States for Indian Home Science educators, laboratory and class room equipment

and supplies. Some of the specific needs recognized at that time by the leaders in Home Science were : the need for providing Home Science teachers, developing and expanding post-graduate programmes so as to provide more college teachers and research workers; the need for inservice programmes for college staff members, extension personnel and secondary school teachers and the need for a broadened programme in Home Science, so that all the phases of family living might be studied. The need for more laboratories and classrooms, research to write text books applicable to the Indian climate, more books, household and scientific equipment, teaching aids, and the need for providing educational centres in India for Home Science educators and research workers to prepare as professional workers in home science was urgently felt.

In the first contract eight home economists and in the second nine came to India. Besides these a campus coordinator was appointed to serve at the University of Tennessee.

According to the first contract in October 1955, eight technicians reached India in two sets. Proceedings All India Conference on Home Science and Home Economics Teachers, 1956. Six of them arrived India in 1955 and two came in December 1955, and June 1956 respectively. The chief of the UT team Dr. Mary Elizabeth Keister was consultant at Maharani's College, Bangalore; Dr. Bernice Mallory the Deputy Chief was at Lady Irwin College,

New Delhi for Home Science Education, and Dr.Dorothy Williams for Nutrition; Miss Clarie Gilbert at the Faculty of Home Science, Baroda for Home Management and Extension work, Dr. Lorna Gassett at Queen Mary's College, Madras for Home Management and General Home Science; Miss Arm Strong at the Women's Christian College, Madras for Institutional Management; and Dr. Josephine Sta at the SNDT Women's University, Bombay for building up the Home Science department. The other two technicians were appointed at the Lady Wellingfon College, Madras where teachers education in Home Science was given.

The Working : The UT/India Home Science programme was arranged on the counterpart relationship. According to this arrangement one or more Indian educators were settled to work closely with each American technician and developed educational programmes. As the experts were selected from the various fields of Home Science they worked as a team in pooling their resources to assist the Colleges and universities in expanding and strengthening their programmes. To achieve the goal of building a counter part relationship with one or more staff members (this was believed to be a mutually beneficial experience); advising on curriculum, revision of the content of the syllabii, selection of participants to study in states; selection and use of teaching aids, text and reference books, laboratory equipment; advising on building

needs at the various colleges - new buildings were planned and existing buildings were remodelled; post-graduate and inservice programmes were assisted.

This contract provided training to Indian Home Science educators in the United States, as participants, who were staff members in one of the cooperating colleges in India. They were supposed to take the leadership responsibilities in the development of Home Science in India after their return. The main objectives of their study period in the States was to strengthen their Home Science background for teaching and/or research at their respective posts. They were able at the same time to earn a Masters degree which was of importance in their respective positions. In selecting laboratory and class room, equipment, supplies and teaching aids, members of the staff and technicians considered whether the item being requested would strengthen or support the present or ongoing programmes, whether much demands would help in the new and expanding undergraduate and postgraduate programmes.

The Achievements : In 1957 Dean Harris of Tennessee and Dean Zuill of Wisconsin visited the cooperative colleges for the purpose of evaluating the programme. They reported as follows on the achievements of the programme and some of the needs still unmet :

1. The increased interest in Home Science and the solidarity of the purpose in the Home Science programme of India among the participating colleges.
2. The revision of curricula and syllabii tended to be more family centered - programmes were broader. However, laboratories and more well trained teachers for all areas of Home Science were needed in all the cooperative colleges.
3. Methods of teaching were more varied.
4. The new post-graduate programmes were approved during the life of the contract - more are necessary.
5. Teacher training programmes for secondary schools and their supervision were improved.
6. Library materials and facilities for their use were improved and needed to be continually augmented with further consideration for effective use of these materials by students and staff.
7. Equipments made broaden programmes possible and teaching material more meaningful.
8. An awareness of the need for Home Science research had come.
9. Inservice programmes contributed for a better understanding of the objectives of Home Science programmes as well as an increased understanding of subject matter.

For the development of Home Science there was great need for teachers who could impart instruction in two or three fields at the College level, apart from the needs of special field requiring expert knowledge that were open to women. The syllabus needed was to meet the needs of both general and specialised training.

During the second contract four colleges were selected as demonstration centres in the fourg geographical regions of India and two technicians were assigned to each of those centres. The technicians spent their major time at the centre to which she was assigned side by side. She assisted the other colleges which required help. It was expected that the demonstration centres will continue to take leadership in assisting the Colleges of the region even after the University of Tennessee India contract was completed.

The regional Centres provided guidance in preparing syllabi suited to Indian conditions. It helped in improving teaching techniques through demonstration and teaching; and organised inservice training programmes, short term courses, workshops and seminars. It further helped through conducting experimental research on the problems of Home Science in India, especially on the practical application on the betterment of Home and family life and to dissiminate the results of such researches for the benefit of the community at large. It added its contributions by the cooperating institutions in the use of equipment. Provided at the Centre so that it has a catalytic impact on the institutions and the teachers in that region. It also rendered professional advice for development of H$_o$me Science by preparing blue prints for the model laboratories and bibliographies for

various branches of Home Science to serve as model to cooperating institutions by its improved techniques of teaching, to act as clearing houses for administrative and, other problems of institutions and help in bringing out publications such as news letters, news bulletins, and to process the requests of the cooperative institutions in solving the peculiar local problems of fulfilling their needs from time to time.

The institutions were required to disseminate the knowledge they had gained throughout the region. The demonstration Centres were : Lady Irwin College, New Delhi for Madhya Pradesh, Punjab, Uttar Pradesh and Rajasthan; S.I.E.T. College for Women, Madras for Andhra Pradesh and Madras; Vihari Lal College of Home and Social Science for West Bengal, Bihar, Orissa; and S.N.D.T. University of Bombay for Kerala and Mysore. Every technician was supposed to spend seventy five per cent of their time in demonstrations and twenty five per cent in development.

Achievements : The UT technicians helped consistently throughout both contracts in planning and evaluating college curricula and syllabi according to the country's needs. Both the technicians and their Indian counterparts cooperated in encouraging a broad interpretation of Home Science adapted to meet family needs and at the same time

providing sufficient depth in content to insure high intellectual quality.

Many of the textbooks in current use in India came from United States or other foreign countries. Hence they required constant adaptation to local conditions. Textbooks leaflets and other teaching materials prepared by Indian Home Scientists and based on Indian family life were urgently needed.

The Master's programmes were developed and offered in Home Management, Child Development, Foods and Nutrition, Textiles and Clothing, Institution Management, Home Science, Home Science Education and Extension.

Technicians gave special attention to the Master's programme because of the desperate need for college teachers and because they believed that India must be equipped to train her own personnel. The technicians served on college and university committees, planning Master's programmes and helped in setting up acceptable standards programmes for scrutiny and future implementation. Assistance had also been given in developing course content and in planning research projects for Master's students.

It was felt that next few years will be difficult ones because of the insufficient number of qualified staff

members available for the development of post-graduate programmes. They were crucial and creative years. Goals were to be determined, patterns formed, and standards set for Home Science in India.

Other requirements to which the technicians and the counter parts agreed were :

> A well qualified staff - a minimum of two full time persons or equivalent, each with M.Sc. or Ph.D. degree, for each area of specialisation; adequate administrative and financial support; good library facilities; adequate space and equipment for research studies; cooperative relationships with allied departments in the University.

These standards would serve as guides for future development of the Master's programme.

Another important activity of the technician was the planning and conduction of workshops. This was one way to reach a large number of teachers in the College and schools. The technicians felt that the workshops were useful because the courses of study could be developed and improved; physical facilities for different programmes could be planned; new ideas related to teaching methods could be provided; the U.S.A. returned participants and the technicians could share experiences; teachers from different institutions could exchange views and discuss

proboems to pave the way for cooperation among colleges; to help develop skills helpful for families to face the challenges; and could explore the needs of Home Science to function in Indian Homes and families. It could also open important areas of research.

The Contributions : The development of the programmes necessitated alterations in the existing building and constructing new plans. The technicians and counterparts worked in planning and developing new laboratories, improving existing ones and planned nursery schools and Home Management Houses.

The TCM provided literature, journals and films to the libraries supplied equipment not available indegenously. Audio visual aids, laboratory apparatus, home appliances and equipment for postgraduate programmes and research.

It also trained administrators in leadership qualities in the country. Forr college administration from Indian universities made a three-month study tour of Home Economics colleges in the United States. Abroad they studied college curricula, teaching methods, library facilities, and other aspects of the programme.

6.2.3 Ford Foundation Project - Baroda

The Ford Foundation Project was founded at the Faculty of Home Science of the Maharaja Sayajirao University of Baroda, India and the Iowa State University of U.S.A. It was signed by the University of Baroda, the Iowa State University and the Ford Foundation in August 1960 and extended till July 1, 1970.

The programme aimed at developing and strengthening the higher education programme at the Faculty of Home Science in all the five areas of Home Science specialisation. The ultimate aim was that the institution would train teachers for other institutions in the country for the future. The programme also aimed at establishing research in all the five areas of specialisation to develop educational material for different levels of education and extension education in rural areas.

Programme : According to the programme of the project the College of Home/Economics of the Iowa State University provided the faculty staff for the teaching and research work to be carried out in all the five departments. One of the faculty provided was the team Chairman.

The first Iowa team had five faculty members and one administrative assistant; the second had four faculty members and the third two.

The first team consisted of :

Dr.Mary S.Lyle, who was in India from July, 1961 to January 1964. She was the specialist of Home Economics Education and was the team Chairman; Dr.Eleanor Barnes, from July, 1961 to December, 1963 and was for Food and Nutrition; Dr.Thomas Poffenberger for Child Development from November, 1961 to May, 1965; Mrs. David Wortman for Home Management from June, 1961 to May, 1963. Mr.David Wortman, was the administrative assistant from June 1961 to May, 1963.

Second time Miss Elizabeth Beveridge specialist in Home Management, housing and equipment came in July,1963 and stayed till April, 1966; Dr.Charlotte Roderuck, Food and Nutritionist came from January, 1964 to April, 1966; Miss Elizabeth Terpley stayed from October 1963 to April 1966 for Textiles and Clothing; and Dr.Ercel Eppright, Chairman and general consultant stayed from July,1966 to April 1967.

In the third turn Dr.Halen Wells came for Home Management from July 1966 to April 1968; and Miss Maxine Burch came as short term consultant for dietetics from October 1968 to March 1969.

The qualified members prospective members of the Faculty of Home Science at the University of Baroda were awarded fellowships towards the Master and Doctoral degree in the United States. The members who were trained expected to serve the Faculty of Home Science, Baroda for a stated period of time after their return to India. Thirty four members of the Faculty of Home Science, Baroda studied at the Iowa State University, three at Pennsylvania State University and two at the University of Minnesota, one each at the University of Wisconsin and Cornell University.

The project also trained teachers from other colleges and universities of India who were awarded fellowship to study. They were deputed by their respective colleges and universities and were supposed on return to serve them for a stated period after the completion of their education. Since 1961, one hundred and seventy eight degrees were granted out of which 118 students received scholarship for Master's programme. In 1968-69 the University approved all the five departments for the Ph.D. degree.

Administration : The project was part of the Ford Foundation programme in India and was supervised by the Ford Foundation representatives at Delhi, Dr.Helen Le Baron the Dean of the College of Home Economics was the official

responsible for the project. For the efficient working of the project she visited India seven times between January 1969 and February 1970. At Baroda a special committee consisting of the members of the university was responsible for the implementation of the project.

Teaching and Research : The experts helped in the development of teaching and research in all the five departments. Some Ford Foundation funds were used to suppoft the research work financed by the Government of India and the industries. Ford Foundation funds were also provided for equipment, books and films for use in research and teaching.

6.2.4 US Agency for International Development

The Indian University Education Commission 1948-49 headed by Dr.S.Radhakrishnan, realising the importance of Agricultural Education with the production programmes suggested the establishment of rural universities in India. The Indo American Technical Co-operation Mission (TCM) which is now known as United States Agency for International Development (USAID) was established in 1952. On the initial stages it provided assistance in the establishment of Agricultural Universities in India.

A beginning for extending technical assistance on an ad hoc basis was made in 1952. This was a contract through Illinois University, to the Allahabad Agricultural Institute.

The birth of a systematic promotion of this assistance programme and the development of Agricultural Universities in India along the lines of the Land Grant System came with the First Joint Indo American team headed by Dr.Frank W. Parker of USAID in September 1955. This agreement was signed on November 28, "Project for Assistance to Agricultural Research, Education and Extension organisations" in 1954. This agreement aimed at providing capital equipment, books, U.S. specialists to work at Indian Institutions and advanced training of Indian staff members in U.S. universities.

In 1955 India was divided into five regions to receive assistance from the US Government in the field of agricultural education and research. For this assistance five American universities were selected to offer the assistance. These universities were to work on a regional bases. It was later on realised that the technical assistance was spread too thin over many colleges and there was need to concentrate on fewer institutions which had the necessary potentials for development.The programme was accordingly reviewed in 1963-64 and the assistance was earmarked for the development of Agricultural Universities in India. At this point a sisterhood relationship began between U.S. Universities and the Indian Agricultural Universities.

Oliver (1969) - " The technical assistance programme included :

1. Establishment and development of eight new Agricultural Universities which would operate in eight Indian States The eight Indian states and the American University team operating in each state are as follows :
    (a) Mysore University of Tennessee
    (b) Maharashtra - The Pennsylvania State University
    (c) Orissa - University of Missourie
    (d) Andhra Pradesh - Kansas State University
    (e) Panjabi and Rajasthan - Ohio State University
    (f) Uttar Pradesh and Madhya Pradesh - University of Illinois.

These Indian universities were developed on the lines of American land grant College Pattern to integrate teaching, research and extension education." It aimed at improving the standard of teaching, research and extension education on lines of the Land Grant Colleges of U.S.A. The Indian Government sought this assistance to train teachers, research workers, extension officers and administrators along the lines desirable.

The USAID aimed at assisting the agricultural universities in a rapid growth of agriculture. The aspects of development which were considered as key condition to accomplish the purposes were :

1. Physical plant development;
2. Integrated programme of teaching; research and extension education;
3. Long range developmental plans; the post-graduate and higher training; research and extension education;
4. Public financial support;
5. Adequate trained personnel;
6. Development of curriculum;
7. Universities responsibility to meet the need;
8. Administration;
9. Linkage with other institutions.

The assistance was a problem solving service oriented, community related activity which was expected to bring in new attitude and spirit of dedication. It also meant to help the institutions picking up values, attitudes and operational norm that could contribute towards the institutional traditions. However, this arrangement was an interim arrangement and was expected to work on sisterhood relationships between US Universities and Agricultural Universities in India under the USAID programme.

Thus the assistance was provided for :

1. Integrating teaching, research and extension education on the pattern of Landgrant College system according to the needs of the states and nearby areas.
2. Strengthening the existing programmes and help developing new programmes.

3. Increasing the number of students in all educational programmes.
4. Strengthening the qualifications of the staff by providing training in US or elsewhere in the country.
5. Assist in planning and developing new experiments,
6. Cooperating in providing advisory assistance to public for their welfare and economic development programmes.

This therefore meant that the assistance was related to the participants training programme, development of physical facilities and expertise for integrated teaching research and extension education.

6.3 Environmental Factors

The environmental factors which accelerated or inhibited the development of the discipline were as follows :

Uniqueness of the discipline; people's and administrator's understanding of the discipline; women's awareness; and their social, political and educational conditions; sex role expected; the social and economic changes in society and the facilities provided for Home Science education.The above is the result of the interview and discussion of the Home Science pioneers and leaders.

The findings of the interview clearly indicated a distinct difference in the understanding of the Home Science discipline as conceived by the general public and as

understood by the administrators.

6.3.1 The Concept of Masses and Administrators

The findings clearly indicated that the interview perceived a difference in the understanding of the discipline public and administrators. All the interviewees thought that public understands Home Science as 'Cooking and Sewing' and an 'education to run home'. A majority of the former also thought that people understand that 'everyone could study the subject' and that girls educated in Home Science were 'preferred for marriage'. The percentages being 100, 100, 92 and 77 respectively. Whereas for administrators the highest percentage of respondents expressed that 'every one could study' and it was influenced by foreigners from other countries. The percentage being 92 and 84 respectively (Table 22). It was interesting to see that on the concept of

Table 22 : Home Scientists Perception for the Concept of Home Science in people and administrators

Sr.No.	Concept	Concept of H.S.	
		Public	Administrators
1	Home science is sewing and cooking	100.0	76.9
2	Education forrun home	100.0	80.8
3	Education costly	38.5	61.5
4	Not applicable at home	38.5	80.8
5	Preferred for marriage	76.9	48.2
6	Everyone can study	92.3	92.3
7	Has no academic value	46.6	26.9
8	Lack of competition	38.5	69.2
9	Effect of foreigners	38.5	84.6
10	Less work for both students and teachers	38.5	80.8

every one could study 'the respondents' percentage was the same both for public and the administrator.

The interview disclosed that a difference in the understanding of the people and the administrators existed in the perception of the Home Scientists. The common people still viewed Home Science as 'Sewing and Cooking' and 'education to run the home' and the 'girls were preferred for marriage' because people must be viewing the subject as the name conveys - a subject related to home or that seeing students working with needlework and cooking. They could not visualize the content of the subject, whereas it could not be so with the administrators. They are expected to be involved in it and should have understood at some level or the other in planning, financing etc. and some must have started visualizing the subject in its proper perspective. It could also be said that when public viewed it as an education in cooking and sewing to run the home their perception that such girls would be preferred for marriage would be most expected but it was not so with the administrators. The perceptions of the interviewees that the administrators view that Home Science was affected by foreigners could be true as the teaching requirements provided could not be seen by them as suited for Indian homes but related it to a foreign influence. Even the books and educational material used could convey the same to the

administrators, idea. Regarding both public and administrators seeing that everyone could study could be because of the skills involved.

6.3.2 Factors of Acceleration

The interview also indicated that the various factors for the acceleration of Home Science were its being a unique discipline; people attitude and their contributions; administrator's understanding; women's awareness for themselves; women's social; political and educational condition; sex role expected in society and the social and economic changes in society.

Amongst the many factors the highest chosen were 'People's interest in women's education' and 'fulfills the social and psychological needs. These were agreed to by 96 per cent of the respondents (Table 23). The next lower expressed factor was 'administrator's understanding' and 'social changes'; both were expressed by 69 per cent. The factors favoured by the lowest percentages were 'girls responsibility at home'; 'customs and social climate'; being responded by 8 and 11 per cent respectively.

These factors revealed that the highest accepted factors were related to people's attitude for women's education and their understanding of women's need for

education. These were seen as important in the speedy development of Home Science education as both were interrelated. The social and cultural factors of a

Table 23 : Social economic and other factors accelereiting the programmes

Sr.No.	Factors	N = 26
1	A new discipline	57.7
2	Social and psychological need fulfilment	96.2
3	Administrator's understanding	69.2
4	Government's orders	19.2
5	Public interest in women's education	96.2
6	Donations	46.2
7	Women's awareness	34.6
8	Inadequate advances for women's education	7.7
9	Traditional attitude for women's education	26.9
10	Customs and social climate	15.4
11	Girl's responsibility at home	11.5
12	Facilities for the education	26.9
13	Legislation for women's right and equality	65.4
14	Growing economic pressures	46.2
15	Social changes	69.2
16	Women important man power	69.2
17	Expansion of women's education	23.1
18	Priorities for women's programmes	26.9

society which expect a particular role from women could also have been of assistance in the discipline's development. The report on "Differentiation of Curricula for boys and girls, Ministry of Education(1962), discussed that the traditional view was the men and women show extensive physical, intellectual and psychological differences which necessitated the establishment of separate patterns of education for boys and girls. This might have helped in the acceptance of the Home Science education for girls.

The 'administrator's understanding' and 'social changes' might have been accepted as responsiblef factors because because women's education was a problem by itself. The administrators who looked at women's education as essential might also have favoured Home Science to be an appropriate education. The 'social changes' were coming in and women's education was expanding. In this situation those interested in women's education must have visualized Home Science education according to the requirements of the time. Due to inadequate advances in women's education the factors consented least were also consented as favourable reasons for Home Science education. Home Science therefore might have been accepted because it prepared women for home and family life. This can stand true for both the 'traditional attitude

for women's education', 'customs and social climate'. This meant that even those factors which were unfavourable for education of women favoured Home Science education may be because of social values and the role expected by women in society.

The findings brought to light that people's interest in women's education and the type of education accepted in a particular social and cultural situation were the factors most helpful. It was also manifested that the administrators understanding of Home Science, and factors which were even negative for women's education favoured the development of Home Science education.

6.3.3 Factors of Inhibition

In comparison to the factors of acceleration the most accepted inhibiting growth, were all related to the Home Science programmes, its planning, administration and facilities provided. Factors which were accepted by a majority were 'lack of institutions with higher programmes', 'lack of experienced leaders and administrators', 'lack of profession oriented programmes' and 'lack of literature and educational material' (Table 24). There were approbated by 92 to a 100 per cent. 'Except administrator's understanding' and 'inadequate advances in discipline' all other factors were favoured by 50 per cent and above.

Table 24 : Social, economic and other factors inhibiting the development of the programmes

Sr.No.	Factors	N = 26
1	Administrator's understanding	26.9
2	Inadequate advances in discipline	38.5
3	Limited opportunities for education	50.0
4	Over protection of girls and women	50.0
5	Belief that married women's employment damages family life	73.1
6	Parents economic condition	69.2
7	Social pressures on women's time and energy	61.5
8	Lack of planning of programmes	92.3
9	Lack of facilities	76.9
10	Lack of institutions with higher programmes	100.0
11	Lack of experienced leaders and administrators	100.0
12	Lack of literature and educational materials	92.3
13	Lack of profession-oriented programmes	96.2

The findings pointed out that the growth was most inhibited by the problems in the development of Home Science education brought to light the genuineness of the problems which needed attention. However, the lack of a correct concept of the masses and the administrators or the social problems of women's education in no way were

hinderances in the development of Home Science education. Other factors approbated were as 'belief that married women's employment damages family life' and 'social pressures on women's time and energy' but these were less acute. However, these could not be neglected as there must be inhibiting growth. Women often take up a job not as a professor but according to their personal conveniences. It is thus difficult to conceive of a favourable growth for a course of study specifically oriented for the women.

6.4 Views on Development

After studying the reasons which helped in the growth and disfavoured it, the views of the pioneers in the field was gathered to study the methods for its future improvements. They set forth that though Home Science Education had achieved a high status however, it was not in a position to solve the allied problems of obtaining teachers, adequate education, apparatus and literature, proper guidance in the growth and establishment of suitable programmes.

6.4.1 The Changing Views on Curricula

The education provided in a society is dependent on many factors. The concept of physical, intellectual and psychological differences between the sexes is one of them. The other most important factor in deciding a curricula is the traditional view that the physical, intellectual and psychological differences established separate system of

education. Recent scientific studies have presented a view that the difference in the psychological traits of men and women were not due to innate sex differences, but due to social conditioning where the dichotomy was created due to the societies where men and women were to conform with expected roles. Thus at a time when changes are seen in the social set-up it would be important to look into the educational programmes according to the changing social needs, where the democratic societies have started favouring the development of individuality. As every individual is endowed with a personality of his own it would be different from all the others. The education thus should aim at conserving this individuality rather than the sex dichotomy.

The findings furthef proved that the Home Scientists were favourable to a situation where there was a need for changing role according to individual's ability', 'for improved co-operation', 'positive attitude towards all the household activities' and 'scientific and technical advancement.' These were acceded by 92, 77, 73 and 65 per cent respectively to remove the differentiation of curricula on sex basis (Table 25). Thirty nine and 42 per cent leaders also believed that the removal of the differentiation of curricula on sex basis would 'enrich the subject matter' and 'improve the job potentialities'.

Table 25 : The changing views on differentiation of the curricula

Sr.No.	Reasons	N = 26
1	The changing role according to individual's ability	92.3
2	Importance of understanding home and family	57.7
3	For improved cooperation	76.9
4	Positive attitude towards household activities	73.1
5	Improve pupil's understanding	50.0
6	Enrichment of subject matter	38.5
7	To improve job potentialities	42.3
8	Social and technological changes	50.0
9	Scientific and technological advancement	65.4

The highest reply to the factor 'Changing role according to individual's ability, opens up that in the changing times when social and economic pressures have compelled women to work out the home to share duties with men it was important that education equipments also with the knowledge which is according to their needs and interest. If this is done it would automatically bring out men's 'positive attitude towards the household activities.' The 'scientific and technical advancement', would also bring a

change in the way of life. Even if women take up an employment they would have time to spare for other work which they could utilise to an advantage of the family, if they get man's cooperation at home. Thus, the removal of the differentiation of curricula on a sex basis would help improve the discipline because boys would enter into it. The enrichment of the subject matter and 'improve the job potentialities'have not seen as important factors but if the discipline would remove the restrictions of 'girls only' the subject matter would include topics of men's interest and this would increase the job potentialities.

6.4.2 Problems and Solutions

The interviewees visualised that if the discipline was thrown open for all, there would be some problems. They expressed that the 'name of the discipline would be a hindrance'. Sixty nine per cent expressed that the 'subject matter may lack interest' and few opined that the 'existing facilities would be less' (Table 26). Thus 92 per cent suggested that the name would need to be changed. Seventy seven and 62 per cent respectively presented that 'specialisation choices would have to be increased', and 'job oriented programmes will have to be a special feature'. Few viewed that the co-educational institutions could be utilised.

Table 26 : The problems envisaged and solutions involved int the removal of the differentiation in curricula

Sr.No.	Problems	N = 26
1	Name would be a hindrance	100.0
2	Subject matter may lack interest	69.2
3	Existing facilities would be less	30.8
	Solutions involved	
1	Name to be changed	92.3
2	Utilisation of coeducational institutions	26.9
3	Training of staff from related disciplines	46.2
4	Inclusion of subject matter of common interest	42.3
5	Specialisation choices to be increased	76.9
6	Job-oriented programmes a special feature	61.5
7	Planning of special projects	42.3

A view of the problems unfolding that the name Home Science would hinder seemed to be very logical because the name suggests that the subject is related to the Home. So long a correct concept is not conceived by the male they may not own the subject even though it would be made open to them. The only alternative could be then to change the name. At present Home Science is not open for many

professions and if it would be open for all, the potentialities of the discipline will have to be brought out. It could also be possible that after knowing the job requirements the programmes are accredited for different jobs. These changes might attract boys. The interviewees also consented that the existing facilities would not be able to meet the demands if Home Science was made open to all. They, therefore, suggested that co-educational institutions could be utilized for such facilities; specially in the beginning.

6.4.3 Strengthening of Home Science

The investigations revealed that the various factors which the interviewees expressed for the strengthening of the subject were related to the programmes, women's job situation and types of institutions. All the interviewees consented that Home Science programmes need 'to be need based' and 'open for all' (Table 27). The other factors which were expressed by a higher percentage were provision of 'incentive and special facilities' for the 'stability of the staff', 'recognition of the programme for different jobs' and 'women with career to be encouraged'.

The most popular expressions were the programme to be open for all and 'to be need based.' This could have been

Table 27 : Suggestions for the progress of the programmes

Sr.No.	Suggested factors	N = 26
1	Programmes to be need based	100.0
2	Programmes to be opened for all	100.0
3	Women with job as career to be encouraged	76.9
4	Incentives and special facilities for stability	80.8
5	Exchange of staff between institutions	30.8
6	Incentives for production of literature	53.8
7	Programmes for different categories and different levels to be available	38.5
8	Evaluation of existing programmes	42.3
9	Institutions of potentialities to be developed for higher education and training of staff	69.2
10	Self-employment potentialities of the programme to be developed	76.9
11	Recognition of the programme for different jobs	84.6
12	Research programmes to be developed	61.5
13	Need-oriented research to be taken up	61.5
14	Planned coordination in teaching research and extension education	30.8

expressed because Home Science when open mainly for women alone must have had limited popularity as women in India in general do not take up job as profession. They take it up when they feel like or there is a need otherwise they leave it. May be that is why other expressed factors are related to women taking up the job. If the women 'take up job as career' and are given 'incentive and special facilities' chances for stability' arises. It also seems related to the factor that the programme be recognized for more jobs. If many jobs would be open there would be greater chance, for the acceptance of Home Science by many. This would therefore, mean greater understanding and demand of Home Science.

6.5 Conclusion

The development of Home Science was effected by various planned and unplanned factors. The planned factors were Home Science Association of India, UT/India Contract 1955-62, Ford Foundation Project, Baroda, and the US Agency for International development which helped in the development of the programmes. The unplanned environmental factors which helped the programmes to begin were the social and economic factors. These were the public interest in women's education and the need based educational programme. Whereas, the factors which inhibited the growth were the problems

related to the development of Home Science education itself. These were lack of institutions with higher programmes, experienced leaders and administrators, planning of the programmes, literature and educational material. The pioneers and leaders accorded that in the changing time there was need to emphasise on role according to ability and not according to the sex. Therefore, the differentiation of curricula on the basis of sex was to be removed. It would improve cooperation in family life and would develop in males the positive attitude towards the household activities. It would also help them cope up with the changing society which are entering due to the scientific and technological advancements. It was added that the removal of the differentiation in curricula would create problems but it could be helped by changing the name of the discipline and by introducing specialisation to make the programme job oriented.
