

Perceptions held by female agricultural educators regarding the role of women in agriculture in  
Uzbekistan: Implications to agriculture and extension education

by

Julie Ann Tritz

A thesis submitted to the graduate faculty  
in partial fulfillment of the requirements for the degree of  
MASTER OF SCIENCE

Major: Agricultural Education (Agricultural Extension Education)

Major Professor: Robert A. Martin

Iowa State University

Ames, Iowa

1997

Graduate College  
Iowa State University

This is to certify that the Master's thesis of  
**Julie Ann Tritz**  
has met the thesis requirements of Iowa State University

Signatures have been redacted for privacy

**DEDICATION**

Two roads diverged in a woods, and I took the one less traveled by, and  
that has made all the difference. ---Robert Frost

Dad, thanks for all your support!

## TABLE OF CONTENTS

LIST OF FIGURES .....	vi
LIST OF TABLES .....	vii
ABSTRACT .....	viii
<b>CHAPTER I. INTRODUCTION .....</b>	<b>1</b>
Introduction .....	1
Statement of Situation .....	3
Purpose & Objectives .....	9
Need .....	10
Implications & Educational Significance .....	11
Definitions of Terms .....	12
<b>CHAPTER II. LITERATURE REVIEW .....</b>	<b>14</b>
Purpose .....	14
Central Asia .....	14
Agriculture in Uzbekistan .....	16
Islam & Soviet Influence .....	20
The Role of Women .....	24
Definitions & Conceptualizations .....	28
Development Paradigms: WID, WAD & GAD .....	30
Women and Development (WAD) .....	31
Women in Development (WID) .....	31
Gender and Development (GAD) .....	33
The Roles of Women .....	34
Historical View of WID .....	35
Theoretical Framework surrounding WID .....	37
Feminism .....	37
Marxism & Feminism .....	37
Liberal Feminism .....	39
Radical Feminism .....	40
Overall Themes in a WID Context .....	41
Advocates, Practitioners, & Scholars: Seven Issues .....	41
Agriculture & Extension Education .....	44
Adult Education .....	46
Education .....	47
Women in Higher Education .....	48
Conclusions .....	51
Research Questions .....	51
<b>CHAPTER III. METHODS &amp; PROCEDURES .....</b>	<b>53</b>
Purpose .....	53
Qualitative Research .....	53
Approaches .....	55
Features .....	56
Design of Study .....	57
Historical Research .....	58

Interviews .....	58
Population & Sample .....	60
Instrumentation .....	61
Observations .....	62
Analysis of Data .....	63
Validity .....	63
Limitations of the Study .....	64
Assumptions of the Study .....	65
Conclusions .....	66
CHAPTER IV. FINDINGS .....	68
Purpose .....	68
The Interviewees .....	69
Demographic Data .....	73
Roles & Responsibilities .....	77
Academic Rank .....	78
Number of Years in Academic Rank .....	78
Subjects Taught .....	78
Professorial Duties and Responsibilities .....	80
Role among Undergraduates .....	82
Work Environment .....	83
Responsibilities outside TIAME .....	83
Involvement in Women Groups or Organizations .....	84
Perceptions of Women Educators .....	93
Viability of Agriculture as a Profession for Women .....	86
Professions in Agriculture .....	87
Respect in Agricultural Professions .....	89
Prove Capabilities .....	90
Lower Expectations of Success .....	91
Educational Needs .....	93
Encouragement .....	94
Barriers .....	95
Conclusions .....	96
CHAPTER V. DISCUSSION .....	99
Purpose .....	99
Demographics .....	99
Roles & Responsibilities .....	104
Perceptions of Women Educators .....	110
CHAPTER VI. SUMMARY, CONCLUSIONS & RECOMMENDATIONS .....	120
Summary .....	120
Purpose .....	121
Procedures .....	122
Findings .....	122
Conclusions and Recommendations .....	124
Recommendations for Further Research .....	126
Significance and Implications to Education .....	126
APPENDIX A. HUMAN SUBJECTS REVIEW .....	129

APPENDIX B. INTERVIEW SCHEDULE .....131  
REFERENCES CITED .....135  
ACKNOWLEDGMENTS .....140

**LIST OF FIGURES**

Figure 1. Regional map of Uzbekistan .....4

**LIST OF TABLES**

Table 1.	Major agricultural products in Central Asia, 1990-92 average .....	18
Table 2.	Viewpoints of women in development proponents: issues & responses .....	43
Table 3.	Derivative characteristics of scientific and naturalistic paradigms .....	54
Table 4.	Areas of specialization for interview participants .....	77
Table 5.	Academic rank of interviewees .....	78
Table 6.	Number of years in academic rank .....	78
Table 7.	Areas of specialization and subjects taught for interview participants .....	79
Table 8.	Interview participants' belief that women must work harder to prove themselves .....	91
Table 9.	Interview participants' belief that success is attainable for women in agricultural professions .....	92
Table 10.	Interview participants' response to women's significance in agriculture .....	96
Table 11.	Interview participants' belief that equality exists between men and women .....	96



## ABSTRACT

The agricultural revolution that evolved throughout Uzbekistan over the past century had a dramatic effect on women. The emancipation of women under Soviet rule increased their role in the labor force, especially in agriculture with the intensification of cotton production. More women became visible on state farms or *kolkhozes* and yet, remained invisible in respect to their domestic responsibilities. The policies of agrarian development implemented throughout Uzbekistan promoted inequalities and health risks as more women were seen working the land.

The agricultural sector has often been the context for much of the research conducted in the area of women in development. Women dominate much of the production agriculture conducted throughout the world. With 61% of Uzbek women residing in rural areas, their role in agriculture has given them an identity they share with many women in similar economies. Yet what makes Uzbek women unique are the social structures under Soviet rule that have allowed higher levels of literacy and better social protection when compared to other women in Muslim countries.

The perceptions garnered from this study reveal that women are involved in a variety of agricultural careers—from farming to professional positions. However, women narrowly defined agriculture in terms of production. Opportunities exist for women in agriculture, but women may be hindered by male dominance in the profession, domestic responsibilities, and the desire for more ‘feminized’ professions such as medicine. Women believed that success in agricultural careers was attainable, but women had to work harder to achieve success when compared to men in similar agricultural occupations.

The successes and challenges that await the women of Uzbekistan will hinge largely on the role of education, extension, and development. As the agricultural industry in Uzbekistan diversifies from cotton, it is important to diversify mindsets and provide a gender perspective

perspective that will allow more women into and to succeed in various agricultural professions. Incorporating a gender perspective into curricula, extension and development programs will increase awareness as to the importance of women in agriculture. There is strength in gender diversity and the women in this study are well educated and can help shape and strengthen the role of women throughout Uzbekistan.

## CHAPTER I. INTRODUCTION

Women from around the world have worked hard for nearly the past 30 years to bring women's issues to the forefront (Tinker, 1990). Equality, development, and peace distinctively capture the essence of women's struggle in many developing countries. These three words have served as a focal point in the past four United Nations' World Conferences on Women that were held in: Mexico, 1975; Copenhagen, 1980; Nairobi, 1985; and the 1995 Conference held in Beijing. These conferences have led to a greater awareness of women's issues. Women world-wide have been working for equality in all forms, to be acknowledged in the development process and to be agents for world peace (Tinker, 1990:15).

Throughout history women have played a pivotal role in many aspects of the agricultural economy. According to Saito (1990), women are essential to many different sectors of the economy, including: food processing, marketing, distribution and making and/or assisting in the decision-making process. In parts of Africa, women account for a majority of the food produced from planting through harvest (Saito, 1990:29). Despite their obvious contributions to society, they have often gone unrecognized and remain invisible in the eyes of many. In many ways it was the first three official United Nations' Conferences (Mexico, Copenhagen, and Nairobi) that legitimized women's concerns in the eyes of national leaders (Tinker, 1990:27).

These conferences have brought international attention to the issues surrounding women in developing economies. Since the United Nations' Decade for Women from 1976-1985, research has been conducted that has documented gender gaps in education, labor force

participation, levels of remuneration, political participation and civil rights, household consumption, and nutrition levels (Griffen, 1995).

Women in development represents both the women involved in the development process, as well as the many roles women hold in those economies. The central concept for women in development is economic development which carries with it ideas of legal equality, education, employment, and empowerment (Tinker, 1990). Economic development is closely related to the advancement of women. Research has shown that women have advanced in situations where economic growth has prospered (United Nations, 1995:x). Thus the role of women is crucial to the overall well-being of many newly independent countries.

Throughout the former Soviet Union the role of women is ever so important as many republics are making the adjustment from a centralized controlled government to one of free markets. Central to this study are the areas of education and agriculture with regard to women. According to UNESCO (1997:2.8) from 1980 through 1994, the number of women enrolled in elementary schools increased nearly .6 times, in secondary schools it increased 1.2 times and enrollment in institutions of higher education increased 1.5 times. Although, some data are missing, this trend is similar throughout the former Soviet Union (UN Statistical Yearbook, 1993). Thus women are gaining more opportunities in education, which will lend itself to bettering their lives and future generations.

During the 70 years of Soviet rule, women accounted for 55-75 percent of the *kolkhozes* (collective farm) workforce. Women did obtain top positions (chairperson/director) at *kolkhozes*, but the number of women in these positions fluctuated

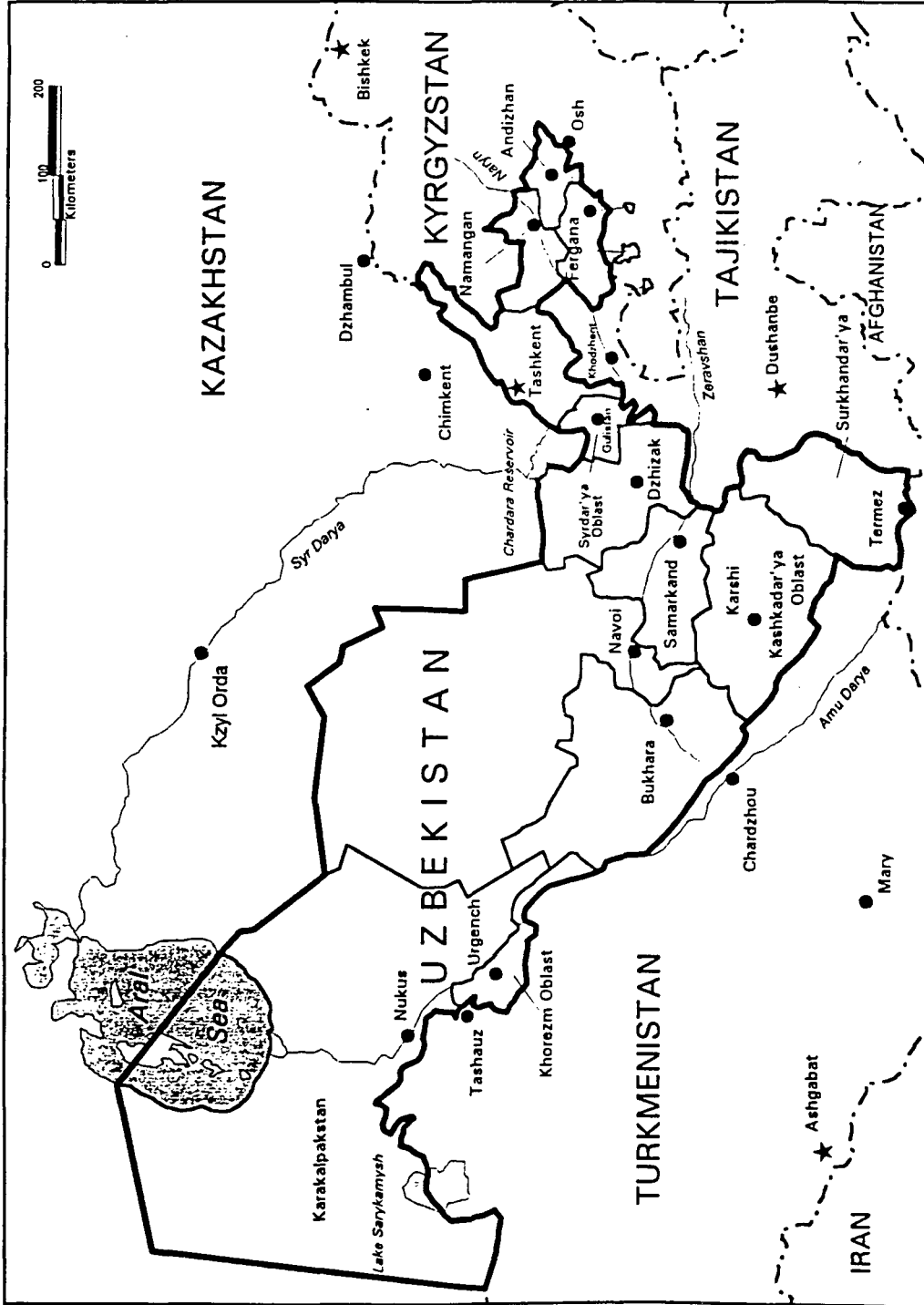
during this time period. For example, in three separate *kolkhozes* prior to World War II the number of chairwomen ranged from 39.2% to 34.4%, but shortly after the end of World War II the number of these positions dropped to nearly 15% (Atkinson, Dallin, Lapidus, 1977).

This pattern is also evident in Uzbekistan, one of several newly formed republics from the Soviet Union where women contribute a significant portion of the agricultural production labor force. Cotton is the primary cash crop in Uzbekistan accounting for 41% of the total 4.22 million hectares cultivated (World Bank, 1993). Since most of the cotton production is done by hand, women spend numerous hours in the field, whereas men are responsible for the managing, marketing, and distribution of cotton (Critchlow, 1991:62).

Uzbekistan has undergone economic, social, political and cultural changes since independence in 1991. For women, their role in society in general has undergone dramatic changes with the Soviet takeover in 1917. Since then, the roles they have assumed show commonalities with women in similar developing economies and yet, their history and culture make them distinct.

### **Statement of the Situation**

The republic of Uzbekistan lies in the heart of Central Asia and is the most populous republic of the five Central Asian states. Bordering countries consist of Kazakhstan to the North, Kyrgyzstan to the Northeast, Turkmenistan to the Southeast, Afghanistan to the South, and Tajikistan to the Southwest. (Figure 1) The capital, Tashkent, lies in the Eastern part of Uzbekistan with a population of approximately two million people.



Craumer, 1995: xii)

Figure 1  
Regional map of Uzbekistan

While under Soviet control, Uzbekistan's economy was dominated by cotton production. With independence, in 1991, Uzbekistan had hopes of selling cotton on the world markets, but establishing new markets has proven difficult (Pomfret, 1995). The government has tried to de-emphasize cotton production by putting more production into grain crops and by distributing land to more than 1.5 million families for their own food production (Craumer, 1995:xi). The enthusiasm for privatization of farms that has swept Uzbekistan has been more in theory than in practice. With 14,236 registered private farms in Uzbekistan in 1994, agricultural production has stayed relatively the same as compared to agricultural production in previous years (Craumer, 1995:7).

Agricultural production dominates Uzbekistan's economy and yet imports consist mainly of foodstuffs. According to Pomfret (1995), Uzbeks feel that the USSR deliberately destroyed Uzbekistan's grain-growing capacity which has made it difficult, if not impossible, to reverse the devastating impacts (continuous cropping, soil erosion, and organic matter depletion) that cotton production has left on the environment. Grain imports have remained considerably high consisting of 3.8 million tons per year in 1993/94 and 2.4 in 1994/95 (Craumer, 1995:33). Heavy reliance on imported grains is partly explained by the over-dependence on cotton production during the Soviet period, coupled with low agricultural productivity and increases in population growth.

In the 1960s, the population increased due to immigration, climbing from 8.4 million people in 1960 to 19.81 million with the 1989 census (Craumer, 1995:35). Furthermore,

Craumer (1995) points out that population growth in rural areas has had a more significant bearing on these numbers than urban or city dwellers.

Intensive cotton production bore much of the responsibility for the low agricultural production for food purposes witnessed since the 1960s. Intensive irrigation systems were established in the 1930/40s to assist with the very dry conditions in Uzbekistan. In the Aral region basin, there was a 82 percent increase in the number of hectares under irrigation over a period of time from 1950-1990.

The magnitude of this growth is seen when the hectares of increase are compared with the Nile valley in Egypt: in this period Central Asia added an area about 1.4 times as large as the total irrigated areas in Egypt in 1991 (Craumer, 1996:10-11).

With pressures from a growing population and increasing water usage by industry, agriculture still consumes 84-86 percent of all water consumption.

Cotton has been the dominant cash-crop since 1950 and still accounts for 41 percent of the total land cultivated (World Bank, 1993). What Uzbekistan experienced was a pattern of growth that was very unusual both historically and in contemporary experience, namely, rapid agricultural growth. . . (Griffen, 1995:37). In 1940, cotton occupied 30.4 percent of all sown area, in 1950, 39 percent and by 1986, 52 percent (Craumer, 1996:27). Specialization in cotton production was a goal under Soviet rule and in fact, by 1976, the output of raw cotton per hectare in Uzbekistan was highest among all the major cotton producers (Griffen, 1995:39). However, there was a lack of concern for both environmental and human factors.

The intensification of cotton production during this period of time had some serious effects on women and the Uzbek people. In many cases, the government failed to recognize



these devastating impacts. In the past, as well as today, most of the cotton production is done by hand; particularly, women spend numerous hours in the field, whereas men are responsible for the managing, marketing, and distribution of cotton (Critchlow, 1991:62). Working long, exhausting hours in the field proved very taxing for women, who not only had to contend with this responsibility, but also the dual responsibility of caring for a family. Today. . . their (women's) participation in agricultural production is seasonal and dependent on cycles (in particular that of the leading cash-crop, cotton, where women mainly perform weeding and harvesting tasks) (Griffen, 1995).

The agricultural sector has often been the context for much of the research conducted in the area of women in development. As early as 1939, women formed a majority of the agricultural workforce throughout Central Asia, comprising over 20 million of the 58% of those employed on the land. This was largely due to the 18.5 million migrants that moved from villages to cities, of which most were men (Bridger, 1987:13). Therefore, women were in a sense forced onto the land, but as Bridger (1987:14) pointed out, women had to juggle farming, domestic duties and gardening, which was often viewed as an extension of women's housework.

The rise to the top of *kolkhozes* for women proved difficult. Only during wartime efforts were there increases in women head farm managers. In the late 1930s, women comprised less than 3 percent of farm managers. However, with the war in the early 1940s, women operating machines and heading *kolkhozes* increased. The number of tractor drivers

nearly doubled, whereas farm managers increased to 12 percent. However, as mentioned earlier this number dropped to 15 percent after the war (Atkinson et al., 1977).

Today, women's participation in agriculture is a major concern, considering that women in Uzbekistan represent 61 percent of the rural population. According to Medlin (1971:83), prior to the 1970s, women in Uzbekistan made significant strides compared to the prior days which were characterized with much female degradation. Medlin (1971) noted that women are still viewed as inferior in many ways to men, in social organizations and at work, but that many women during this period of time were pursuing work outside the home and were experiencing some degree of economic independence.

Along with increases in labor force participation, educational opportunities increased for women while under Soviet rule. Prior to that period, girls traditionally had few opportunities for education of any kind.

A small number of girls attended *maktabs* (or schools) as they made their appearance in Turkistan especially late in the 19th century, and thus began to alter the traditionally exclusive nature of Muslim education in favor of the male sex (Medlin et al 1977:32).

However, educational opportunities opened for girls and women as socialism took a stronghold throughout Uzbekistan. Views were mixed on the Sovietization of Central Asia and particularly Uzbekistan; some viewed it as a liberating force by opening doors and providing opportunities for women, while others viewed as a detriment to their culture and heritage (Bridger, 1987).

By 1959, nearly 23 percent of the women and 30 percent of the men in rural areas received secondary education (Bridger, 1987:18). As time went on opportunities increased

for education, particularly higher education. The percentage of women attending agricultural institutions under Soviet rule ranged from 17- 32 percent (Atkinson et al, 1977). By 1990, the percent of females in places of higher education (namely colleges and universities) in the former USSR was 49 percent (UN Statistical Yearbook, 1993:69). World-wide figures for 1990, showed the percent of females in higher education averaged 50 percent (UN Statistical Yearbook, 1993).

Looking at the past, can often help us better understand what may happen in the future. The past century has in many ways shaped the lives of many Uzbek women, especially the past several years of independence.

### **Purpose and Objectives**

The purpose of this study was to describe the role of women educators at The Institute of Irrigation & Agricultural Mechanization Engineers (TIAME) in Tashkent, Uzbekistan, and to determine the implications for agricultural and extension education. Specific objectives for the study include the following:

1. Identify specific roles and responsibilities of women agricultural educators at the TIAME.
2. Identify perceptions regarding the role of women in agricultural professions.
3. Develop a demographic profile of women agricultural educators.

### Need

As a result of the Fourth UN World Conference on Women, the Beijing Declaration reiterated words of Tinker (1990:53):

...that the status of women has advanced, but inequalities and obstacles remain. Women's roles are multifaceted, women's identities are multilinked; there is strength in gender diversity; there is also strength in women's shared cultures and values.

Why do we need to understand gender differences, particularly for women in Uzbekistan?

Understanding the role women play in Uzbekistan is one piece of the puzzle in understanding women's role in development around the world. Furthermore, women share many commonalities in their joys and struggles at home and in the workplace and yet, from country to country and culture to culture they are different.

Understanding women as educators sheds light on an area of research that needs further thought and contemplation. Universities and places of higher education, especially in the sciences, have few female professors and administrators. In the United States, women teacher educators in agriculture are sparse with only 14 women professors in departments of agricultural education nation wide (Whittington, 1993).

Furthermore, this information can build on the definition of the term "extension", which can be defined to serve those with educational needs, as women world-wide strive for equality in all forms. Therefore, expressing the perceptions of Uzbek women regarding this field of study will aid in understanding women in Uzbekistan and aid in grasping a more global picture of women in development.

### **Implications and Educational Significance**

This study will add to the information and resources on women in development. Understanding the role of women educators in Uzbekistan may increase our knowledge of a discipline and geographical area relatively unknown to most Americans. The findings from this study may prove useful for lectures, seminars, and printed material in agricultural education in emphasizing the important role women play in agriculture and in the development process.

Women are entering into the professions of agriculture and its many disciplines. The number of women undergraduates in undergraduate agricultural curriculums almost mirrors the number of women in the Agricultural Education & Studies Department at Iowa State University, between 40-50 percent. For example, 32 out of 250 (13 percent) of the faculty in the College of Agriculture at Iowa State University are women. In the Department of Agricultural Education and Studies at Iowa State University, only one woman is currently on the faculty. Nationwide, only 14 women have moved to a professorial position in departments of Agricultural Education. At a time when the number of women holding professorial positions in the field of agriculture is very low, it is important to recognize a need for women in professorial positions. There is strength in numbers as women bring a perspective different from men and serve as role models for undergraduates.

To enhance the education for girls, young women and career development of professional women, it is necessary to study the situation of women world-wide because it is only when we step in someone else's shoes, that we really begin to understand that

individual. Therefore, there is much to learn about women around the world including their thoughts and perspectives. From this information, educators will be able to better assist the next generation of women entering into the profession of agriculture.

### **Definitions of Terms**

The following terms were used to frame this study.

Agricultural Profession - a set of standards through which an individual pursues a career in agriculture.

Agricultural Education - the educational process of students learning about agriculture with both students and professors facilitating the process.

Barrier - an obstruction or restriction that slows the advancement in a particular career.

Career - profession for which one trains; a field or pursuit of achievement in the public, professional, or business life.

Curator - a Russian term meaning advisor at the university level.

Docent - a Russian term meaning Associate Professor.

Kolkhozes - a Russian term meaning collective farm in Uzbekistan.

Islam - major world religion practiced by Muslims.

TIAME - The Institute of Irrigation & Agricultural Mechanization Engineers. The institute where each interview was conducted.

Uzbekistan - one of the five Central Asian Republics; formerly part of the Soviet Union.

Women in Agriculture - encompassing all types of work for women involved in agriculture; production, educators, university professors, and public service.

Women in Development - a field of study, whereby women play a integral part in the development process, determinant of enhancing equity, empowerment, and peace for all women.

## CHAPTER II. LITERATURE REVIEW

### Purpose

The purpose of this study was to describe the role of women in agriculture as perceived by educators at The Institute of Irrigation & Agricultural Mechanization Engineers in Tashkent, Uzbekistan. The study focused on implications of the data to agricultural and extension education. Specific objectives of this study were to (1) identify specific roles and responsibilities of women agricultural educators at TIIAME; (2) identify perceptions regarding the role of women in agricultural professions and; (3) develop a demographic profile of women agricultural educators.

### Central Asia

The transition that faces the Central Asian Republics (CARs) is quite overwhelming considering each republic was unprepared economically, politically, and culturally for independence in 1991 (Olcott, 1993). For seventy years the five Central Asian states of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan were under the rule of central administration in Moscow with little or no autonomy for developing an identity and making decisions affecting their economies. Their boundaries were drawn under Stalin in the 1920s and have been fairly arbitrary up until the last six years. According to Olcott (1993: 51),

As long as the Communist Party was in control in Moscow, the artificiality of Central Asia's boundaries was irrelevant. The political autonomy granted these republics was limited. The USSR accepted only "international" interests as legitimate.



Clear dividing lines between the now five existing republics were absent for nearly two centuries and those that exist today have been drawn by outsiders who do not understand the nationalities and cultures that exist (Pomfret, 1995).

The unexpectedness of independence in 1991 set the wheels in motion for Central Asia to begin the process of nation-building and forming national identities (Malik, 1994). Home to nearly 50 million people, Central Asia hosts a variety of descendants. In 751, Arabs had conquered key towns in Central Asia and brought with them Islam and an alphabet. The Arabs eventually lost power to Persia, but the cultural and religious ideologies from Arabia remained (Pomfret, 1995). However, today the majority of Uzbek people are Muslim descendants of the Turko-Mongol and Persian peoples and nearly 12 million are European descendants (Olcott, 1993: 49).

Each republic was very tightly woven around the economic and political ideologies of the Soviet Union and independence left many CAR leaders with very pronounced problems both monetarily and in trading (Pomfret, 1995: 51). Thus with the collapse of the ruble in 1992-1993, distinct monetary units were established in each country. According to Pomfret (1995), all of the CARs are committed to establishing market-driven economies, but the rate at which that is done has varied among republics. "The CARs were passive observers taken unaware by the rapidity with which the Soviet Union disintegrated in 1991" (Pomfret, 1995: 59).

Geographically, Uzbekistan lies between two great rivers: the Amudarya and the Sirdarya from North to South and from the foothills of the mountains, West to the Aral Sea.

With a population of just over 21 million, the republic of Uzbekistan is nearly homogenous with 71% of its population composed of ethnic Uzbek. Uzbekistan is the most populous of the newly independent republics and for the most part, the population resides along the rivers and those areas irrigated from the rivers. About three-fifths of the land is desert or semiarid land used for extensive grazing (Pomfret, 1995).

Historically, Uzbekistan had ownership of some of the most historically rich towns in Central Asia, including: Samarkand, Bukhara, Khiva and Kokand. These towns were a critical part of the Silk Road that passed through Uzbekistan during ancient times and provided economic prosperity for Uzbekistan and all of Central Asia.

### **Agriculture in Uzbekistan**

The year 1917 marked the beginning of 70 years of Soviet control in Uzbekistan. This was also the year in which the Decree of Land was enacted and allowed all the land to be taken over without compensation and become the property of the whole people, to be used by those who cultivate it (Bridger, 1987: 9). In essence, the Soviet ideology of all things equal came to pass with the emergence of state farms and *kolkhozes*. This system led to an exploitation of the land as the Soviet Union's aim was to become self-sufficient in cotton through production in the Central Asian republics.

In 1929, the Central Committee in Moscow passed a resolution to establish "cotton self-sufficiency" in the USSR (Critchlow, 1991). This resolution stemmed from two reasons: the USSR's ideology of self-sufficiency and the increasing demands from the textile industry.

Since that time Central Asia, specifically Uzbekistan, has developed a very specialized infrastructure, all tailored towards cotton. All of the machinery and equipment for producing cotton were made in Central Asia, with nearly 90 percent of the cotton gins and a majority of the looms and irrigation equipment were made there as well (Mesbahi, 1994).

Cotton requires a tremendous amount of rain, nearly 30 inches per year and the Central Asian region often receives little or no rain compounded with average summer temperatures hovering around 100°F, therefore irrigation was a logical solution to meeting the Soviet's demand for cotton. The Central Asian Republics consist of a mostly desert-type soil, where desertification and extensive irrigation measures have been employed over the last fifty years to change what was a diverse agricultural base to a largely monoculture system. Therefore, water and its sustainability has been a major issue in Uzbekistan and other Central Asian Republics.

Historically, irrigation in Central Asia was an environmentally stable one. Prior to 1920, the farms were 2-3 hectares in size and the irrigated portions ranged from 0.3 - 0.8 hectares which were surrounded by short earthen walls with trees planted on them (Micklin, 1992). According to Micklin, the irrigation equipment was rather outdated and the unlined canals lost nearly 30 percent of the water transported, but were overall more efficient than the irrigation systems intact today.

The collectivization of agriculture completely destroyed the small farms and the small-scale irrigation systems intact and replaced them with large state run operations. Flooded sectors averaged 3.5 hectares and these sectors increased 7 to 10 hectares larger than

before (Micklin, 1992). The transformation to a collective system brought modern irrigation equipment in, produced a monoculture of cotton and ended up exploiting an entire region agriculturally, politically, and socially. Mesbahi (1994), depicts the seriousness of the cotton monoculture in Uzbekistan:

Specialization should be reasonable. In Uzbekistan it has degenerated into a dictatorship of a single crop, . . . cotton. It first became a monoculture in a psychological sense, when it drove all the other needs of the region from the minds of certain leaders (in Moscow). Then it crowded the normal crop rotation from the fields and pushed everything else out of the plan. By being transformed into virtually one great cotton plantation, Uzbekistan embarked on a long, tragic experiment to determine the capacity of a monoculture to corrode not only agriculture, but also industry, education, health, and finally public morality (that is, charges of official deception, corruption, and bribery) (Mesbahi 1994:62).

**Table 1.** Major Agricultural Products in Central Asia, 1990-92 Average (thousands of metric tons)

	Kazakhstan	Kyrgystan	Tajikistan	Turkmenistan	Uzbekistan
Cereals	23,218	1,432	300	571	1,985
Seed	288	66	697	1,393	4,568
Cotton					
Fruits	270	141	318	222	1,120
Vegetables	1,220	424	775	386	3,650
Meat <sup>a</sup>	1,510	210	76	100	510
Milk <sup>b</sup>	5,265	961	521	471	3,675
Wool <sup>c</sup>	169,230	59,867	6,950	26,300	41,133

a Slaughtered weight  
b and milk products  
c metric tons

Source: Pomfret 1995:34

Table 1 shows the major agricultural products in the Central Asian Republics from 1990-92. Uzbekistan is by far the leader in cotton seed production when compared to the other CARs and all together they had accounted for four-fifths of the USSR's cotton production (Pomfret, 1995:34). Uzbekistan dominated cotton production and thus created numerous employment opportunities from production through distribution.

The effects of the monoculture are being felt throughout the CARs, but specifically in Uzbekistan where a sizable section of the Aral Sea lies. An environmental disaster was created which is widely recognized but economically and politically difficult to deal with (Pomfret, 1995:63). Uzbekistan has recognized the seriousness of the problem and has declared intentions to slow down the production of cotton and diversify into other grains. In 1991, a poor grain harvest encouraged governments in Central Asia to transfer lands from cotton to grain. Grain production increased by 20 percent in Kyrgyzstan, 38 percent in Uzbekistan, 46 percent in Tajikistan, and 65 percent in Turkmenistan between 1989 and 1992 (Pomfret, 1995:35).

At independence, Uzbekistan's economy was dominated by cotton production, but from 1995 to 1996 the Central Asian region has dropped its share in the world cotton market from 10.6% to 10.0% (Akiner, 1996). Particularly in Uzbekistan, the largest producer of cotton, the cotton harvest varied from province to province. The main reasons for the decrease were difficulties encountered in building, repairing and providing fuel for the cotton pickers. In provinces with this situation, hand-picking was heavily relied upon, which

produces a higher quality lint, but in many situations the human factor suffers (Akiner, 1996).

In his December 1995 address to Parliament, Uzbek President Islam Karimov told legislators that 3.8 million people (half of all Uzbekistan paid workers) are employed in agriculture. This figure seems to contradict current studies that show the same volume of agricultural output requires only 1.5 million people (Akiner, 1996: 41).

### **Islam and Soviet Influence**

Uzbekistan's past has in many ways dictated its future. The combination of religious and communist ideologies played a significant role in the transformation of Uzbekistan in the early 1920s. Prior to 1917, women followed Muslim traditions in varying degrees throughout the country, but that changed with the atheist campaigns of the 1920s and 1930s.

Islam, which is derived solely and primarily from the Quaran has been and continues to be interpreted in many ways. Islam has taken shape over several centuries and upon Muhammad's death, interpreting the Quaran was left to his companions and to those followers in countries to which Islam spread. How did the Quaran and its passages influence women and society? The following passage from the Quaran elicits a sense of gender equality.

For Muslim men and women,-  
 For believing men and women,  
 For devout men and women,  
 For true (truthful) men and women,  
 For men and women who are,  
 Patient and constant, for men

And women who humble themselves,  
 For men and women who give  
 In charity, for men and women  
 Who fast (and deny themselves),  
 For men and women who  
 Guard their chastity, and  
 For men and women who  
 Engage much in God's praise,-  
 For them has God prepared  
 Forgiveness and a great reward.

(Ahmed, 1992: 65)

The Quaran makes reference to equality by stating that “Wives have rights corresponding to those which husbands have, in equitable reciprocity” (Ahmed, 1992: 63). This ethical view of equality is often in conflict with the hierarchical view taken in the marital structure Islam has handed down over the years. What is written in the Quaran and what the general public has come to accept are two different things. The following excerpt elicits this wavering of Islamic views and practices.

... (the) establishment Islam (institutional and legal Islam) articulates a different Islam from the ethical message that the layperson justifiably hears or reads in the Quaran, and unfortunately, that Islam, intolerant of all understandings of the religion except its own, which is authoritarian, implacably androcentric, and hostile to women, has been and continues to be the established version of Islam, the Islam of the politically powerful (Ahmed, 1992: 225).

The role religion plays in the life of Uzbek women varies throughout the country.

The question remains, regarding the resurgence of Islam, as witnessed in the Ferghana Valley in 1989 and 1991, will move and spread throughout the country and the effect this will have on the women of Uzbekistan in the years to come.

The form of Islam practiced within Central Asia is relatively mild fundamentally, when compared to the Shiite or Sunni fundamentalism of the Middle East. Islam gathered a stronghold in Central Asia from the ninth through the twelfth centuries, as the famous Silk Road brought travelers and Muslim ideologies to many parts of the region (Haghayeghi, 1995). However, Central Asia began to lose touch with other Muslim countries as the Silk Road lost traders. People started to travel more by sea and furthermore, Iran, the ruling dynasty converted to the Shiite branch of Islam, whereas Central Asia kept with the Sunni branch of Islam. Thus political and religious barriers were erected between Central Asia and other Muslim countries (Malik, 1994: 243).

More dominant is the traditional Islam practiced in rural Uzbekistan, whereas, in the capital city, a more relaxed atmosphere is present. Veiling, consisting of a scarf wrapped around the head, covering the face, and tied under the chin, is more common in Islamic dominated regions such as Namangan and the Ferghana Valley. Whereas in cities, it is common to not veil, as the population is more diverse with a mixture of Muslims, Russians, Koreans, etc. Religion was, and still is, a contributing factor in the development of women.

For nearly three centuries Islam stayed intact until Russia invaded in the 19th century. For some this was seen as a liberation, as technology and other services flowed into the countries and gave way to telecommunications and transportation systems, particularly railroads. However, many felt that this invasion would bring about great change and jeopardize the sanctity of Islam (Malik, 1994). In fact, Sovietization did just that. According to Braker (1989:165) the change occurred in three stages: 1) from the October 1917



revolution until approximately 1928; 2) from 1928 until 1942 and; 3) from 1942 until the present day.

Numerous attempts were made throughout the first phase to incorporate Central Asians and their culture into the Soviet climate. Unfortunately for the Soviets the early attempts at assimilation backfired and it only created tension among the different ethnicities of Turkistan (also, known as Central Asia). This attempt at assimilation only added fuel to the flame and led to the eventual break-up of Central Asia in 1925 and into the republics that exist today (Malik, 1994; Braker, 1989). Because of these failed attempts to Sovietize Central Asia, Stalin moved resolutely against Islam (Malik, 1994:243).

Throughout much of the first and second stages of Sovietization (1917-1942), people were killed, mosques destroyed, museums converted to atheist museums, veils stripped from the heads of women and countless other acts were deemed necessary in the effort to rid Islam from society (Malik, 1994: 244). The beginning of Stalin's dictatorship led to the full indoctrination of atheism. The Basmachi Revolt of 1916 in Central Asia, in many ways started Stalin's full fledged attack on Islam. The revolt had a devastating impact, especially on the people from the Ferghana Valley in Eastern Uzbekistan, as thousands of Muslims were massacred by the Red Army. Propaganda was used following the Basmachi Revolt to convert Muslims and as a result there were “. . .definite indications of a gradual dampening of the populations devotion to Islam. . .” (Braker, 1989:168), over the next ten years.

Despite this attack on Islam, many people continued to practice Islam in secret; circumcising their sons, celebrating Ramadan, having weddings and funerals in the traditional

Muslim way. Therefore, as seen in later years, Moscow's ignorance of the strong Muslim force throughout Uzbekistan led in many ways to struggles witnessed in 1989 and 1990 in the Ferghana Valley. According to Malik (1994; 244), in the minds of Uzbeks and other Central Asians, (including non-Muslims), the struggle had become associated with the national identity and the struggle for ethnic survival against assimilation and acculturation. In fact, many believe that the Soviet Union never did replace Islam, but rather instituted a system comparable whereby only those who integrated into the Soviet system were rewarded (UN, 1995).

Traditional Islam exists in rural Uzbek and a more relaxed atmosphere is present as compared to the capital city of Tashkent. Not all women are veiled, as the population is more mixed in the cities, than in the rural areas. With independence in 1991, there has been a resurgence of Islam throughout Central Asia and especially Uzbekistan. For the women of Uzbekistan, especially, Islam has played a significant role in shaping their identity over the last century and will have an impact in the years to come (Haghayeghi, 1995).

### **The Role of Women**

In 1913 just prior to the Bolshevik takeover of Central Asia, 81% of the population lived in rural areas (Bridger, 1987:6). Women in rural Russia, especially, were viewed in a subordinate way. Both tradition and law rewarded men with full authority of the household, legal matters and all matters of inheritance. A proverb common among peasants was a crab is not a fish—a woman is not a person (Bridger, 1987:xx). This attitude and belief of women's

role in society continued despite the Soviet takeover in 1917 and their push towards economic equality.

Max Penson, an Uzbek photographer, captured the essence of Uzbek people and their way of life during the early decades of Soviet rule. Up until 1924, “. . .no woman had ever dared - or wanted - to show herself in public without a *parandscha* or veil. Penson, 1996:31 described, “The veil was made of a thick horsehair net which covered the face completely.” In fact, a *parandscha* covered not only the face, but the entire body. In the forming years (1928-1930) of Soviet Central Asia, the government made every attempt to integrate women as part of the workforce and to do away with *parandscha*.

Women started working in agriculture, in factories. They drove tractors and took part in sports activities. They organized political unions for women, and the young girls became *kosmolzes* or pioneers. Within ten years, the position of women in modern society became established (Penson, 1996:31)

Women’s role in agriculture became very significant as cotton production intensified. Cotton is very demanding and requires hand-picking for the best quality and quantity. The situation for women in Uzbekistan employed in agriculture production has been primarily dictated by the cotton monoculture that overtook Uzbekistan during the late 1920s and early 1930s. Hand-picking of cotton is done primarily by women and this only adds to the dual responsibilities given to most women; almost like a birthright. As socialism took hold, more women entered into the agricultural field (Penson 1996: 17, 76, 87).

Socialism was a factor in the so-called emancipation of women in agriculture. With the widespread introduction of tractors and combines into Soviet agriculture during the decade (1930s) the woman tractor driver, epitomized by the leader of their government, Pasha Angelina, was promoted as a symbol of economic progress and sexual equality under socialism (Bridger, 1987:14).

Yet, the reality was far different. Only 8 percent of the entire agricultural workforce that drove tractors or combines were women. According to Bridger (1977:14), where technology was introduced it was placed firmly into the hands of men.

This push to include women, was seen as an economic ploy to increase the overall workforce and therefore increase economic output. As late as 1970, over 90 percent of the able-bodied adult women were employed or engaged in study with over 50 percent as part of the Soviet labor force (Peers,1985:117). The number of women agricultural specialists varied throughout the Soviet Union. In 1970, women represented 36 percent of Soviet agronomists. Of that, 47 percent originated in Estonia & Latvia and less than 12 percent came from Uzbekistan, Turkmenia, and Azberdaidzhan (Bridger, 1987).

Rural women account for 61 percent of all women in Uzbekistan (UN, 1995), and many wanting to enter agricultural professions were hindered because of two reasons. First, traditional Islamic attitudes made it difficult for women to seek specialized training and secondly, the schools or institutes were great distances from their village (Bridger, 1987).

Governmental pressures, as well as the demands of farming took their toll on women. As a result women often lacked health care for themselves and their unborn children.

Pregnant almost every year, a country woman may bury five or six children in her lifetime, and women are as unhealthy as the children they bear. About half of all women and children suffer from chronic illnesses, but most local physicians have only rudimentary medical training and most hospitals lack elementary sanitary facilities (*Komsomol'skaia pravda* cited in Eickelman, 1993).

In 1989, census reports showed a slight drop in birth rates after nearly two decades of governmental pressure to reduce family size. Infant mortality in Central Asia was the highest

in the USSR, more than 100 per 1,000 in some places (Bohr, 1989). For women in Uzbekistan, cotton production has dictated their lives in many ways. The high birth rate that seems to plague Uzbekistan is in large part due to religious reasons, but also the labor-intensive cotton production that in many parts of the country, requires large families to assist with the planting and harvesting (Bridger, 1987).

Children and the family structure are key components to the lives of women everywhere. As in other countries (UNESCO, 1996), Uzbekistan is similar, the level of education for women and number of children negatively correlate. In a survey conducted in the Amur region in 1969, it was noted that the more highly educated a woman was, the fewer births she was expected to have (Bridger, 1987:132). In rural Uzbekistan, the number of children may be as high as six or seven per household whereas the number of children per household is lower in the cities where women have opportunities for higher education.

According to Pomfret (1995:40), major achievements have taken place, especially for women and girls. Notably as universal literacy has taken hold, more girls have become educated and more females have entered the workforce. In 1960, nearly 43 percent of Uzbek women were either in blue or white collar positions. Teaching, medicine, and factory work became more prevalent among women. However, Soviet women on average spent 40 hours per week doing domestic chores. The disparity is clearly evident between women and men and the number of hours spent doing household duties.

As of 1992, one year following independence, Uzbek women represented 46.5 percent of total number of workers and employees (Griffen, 1995). Women form a majority

of several sectors of the labor force: Public health and sport, 76.9 percent; Credit and state insurance, 59.5 percent and; Education 56.1 percent (Griffen, 1995). Women are often concentrated in the areas of public health, social security, and education, where pay rates are often less than other professions.

The roles of women assumed either by choice, societal or cultural influence paint part of the picture for women. Just as Uzbekistan is in a state of economic, social and culture development or change, so are the women. Therefore it is important to address their situation in a development context. The following section will look closer into the study of women as a whole, specifically in terms of development and the theories and paradigms surrounding women.

### **Definitions & Conceptualizations**

Imagine, just for a moment, that you wake up one day to a world turned upside-down, a world where childcare facilities are located at dad's workplace, where fertility statistics record average child per male, where mothers ask sons to clean up spills and daughters to change lightbulbs, where evening TV news shows not a room full of gray suits but of floral -patterned ones when the leaders of industry meet. Would you be surprised? (INSTRAW 1996: 7).

Strides have been made to enhance the role of women in society throughout the past five decades. In 1945, the UN declared that women and men need to be equal in the pursuit of basic human rights. Much has changed since the 1940s in terms of new technologies and research into areas that have expanded our knowledge into various disciplines. However, oppression, poverty, violence still occur, especially towards women, despite the constant

push from innovators in the development field for the inclusion of women in the development process (INSTRAW, 1996).

Basic to the role of women is defining some often used, but not clearly understood words. A foundation concept central to women are the differences between sex and gender. Biologically, women are distinguished from the male sex by their ability to conceive and bear children (Whelehan, 1995:73).

Sex is one aspect of gender. Gender is constructed based on the social, political and economic factors surrounding women (Boserup, 1970; Tinker, 1991; INSTRAW 1996). It is a part of the socialization every child goes through in growing up.

...in many cultures boys are encouraged in the acts considered to display male traits (and girls, vice versa) through the toys given to children (guns for boys, dolls for girls), the kind of discipline meted out, the jobs or careers to which they might aspire and the portrayal of men and women in the media (Brett, 1991:3).

Furthermore, gender is based on culture. The culture witnessed in the United States is different from cultures around the world. Biological sex is one criterion that every society starts with when defining gender, but it doesn't paint the whole picture. Rather it is a starting point because no two cultures are the same entirely nor does a culture remain the same over time (Brett, 1991).

A clear distinction between gender and sex is essential, so that we can develop a gender perspective. According to Kabeer (1990), a gender perspective is the ability to *distinguish* between what is natural (biological) and what society and culture dictates as the role(s) of women and to *dialogue* about changing what we can change; the socialization

process of gender. The following are terms that provide a holistic look at gender (INSTRAW, 1996: 13)

Gender-biased: the unequal allocation and exclusion to various resources such as credit, education, food, job, information, and/or training.

Gender-blind: the act of overlooking gender as a key factor in the choices available to women and men. Example: single-parent families and distribution of burdens and benefits to all family members.

Gender-sensitive: the ability to consider *who benefits* from development programs and *who does not*.

Gender analysis: the continual evaluation of roles of women and men focusing primarily on the imbalances in power, wealth, and workload between women and men in all societies.

As the above definitions point out, gender is a concept, as well as an adjective used to describe specifics within the realm of women's issues. The gender concept has been added in recent years, as one of the three development paradigms used.

### **Development Paradigms: WAD, WID & GAD**

The development process for many years excluded the voice of women. Several different paradigms on women's issues have evolved over the years as a result of the UN's initiative for equality among all humans in the mid-1940s. The three paradigms include Women in Development (WID), Women and Development (WAD), and Gender and Development (GAD). In practice, WID is the dominant and best known approach used.



**Women and Development (WAD)**

The least discussed and written about approach is Women and Development (WAD). This approach carries two central ideas. First, the disparities between industrialized and less developed countries needs to be equalized, particularly in terms of redistributing resources. A more equal international economic system is needed, so that all countries are on equal footing, otherwise real development is impossible (Young, 1993:134). Secondly, the nature of development is another determinant of WAD. Development in many ways has given rise to women's poverty, marginalizations, and inequality (Young, 1993:135).

**Women in Development (WID)**

Women in development is rooted with liberal feminism and the overall belief that women can do everything men do and as well as men (Young, 1993:129). The WID approach places great importance on the individual and self-betterment with the idea of role modeling (Young, 1993).

The concept of women in development (WID) began as a policy concern to help improve and better the goals of development agencies through economic development (Tinker, 1991:3). Throughout much of the 1970s and early 1980s, WID emphasized making visible the invisible work, needs and contributions done by women in third world countries (Henderson, 1995). WID succeeded in initiating a dialogue on women's issues, in drawing attention to the many roles women hold throughout the world, as well as the benefits of including them in the development process.

What was achieved was worthwhile, but key factors were not recognized and hindered the overall process. First, the assumption was made that women are the sole agents of change and that the inclusion or assistance of men was not needed. Because of the society we live in, women's lives are very much shaped by the relations with men, therefore to exclude them from the change process would make change all that much slower (Young, 1993). Secondly, WID's philosophy sought to get more women into the public arenas and into more non-traditional work, which would help facilitate change, but they failed to recognize women's location in society. Interestingly, a majority of women worldwide reside in rural areas and to make efforts in development would have little or no impact because their needs are different (Young, 1993; INSTRAW, 1996). Thirdly, the ideology of women in developing countries was different than those trying to initiate change(s). The unequal balance of power and position in society was seen as normal, so why change, was the overwhelming response by women (Young, 1993).

These flaws in the WID strategy, in conjunction, with the hostility to change came from deeply imbedded male views which dominated the UN in the early years and thus flawed WID strategies. Furthermore, cultural imperialism played a large role in the reform process. Women and men development agents were concerned about Western imposition of technology and ideology and the ramifications to a society's culture. Often times outsiders viewed this as a justification to do nothing.

## **Gender and Development (GAD)**

The conceptual framework surrounding GAD took into consideration many of the weaknesses in the WID approach. Those include:

- 1) that a focus on women alone was inadequate to understand the opportunities for women as agents of change;
- 2) that any analysis of social organization and social process has to take into account the structure and dynamic of gender relations;
- 3) that the totality of women's and men's lives have to be the focus of analysis, not merely their productive, or their reproductive activities;
- 4) that women are not passive, nor marginal, but active subjects of social processes (Young, 1993:134).

The emphasis with GAD lay more in changing the structures and processes such as laws, religions and political institutions, systems of thought, and socialization practices that have given rise to disadvantages among women. GAD offered a more holistic view of women's issues, looking at more than just the individual. According to this approach, women were not a homogenous group, but divided by class, color, and creed (Young, 1993: 134). Finding common ground among a group of very diverse individuals has been noted as a disadvantage of this approach.

Both WID and GAD are the dominant paradigms used in development today. Both emphasize the importance of decision-making and involvement towards making a difference. However, GAD looks to social organizations for leadership, whereas WID looks to individuals to aspire to public or political positions to serve as the voice for women.

## **The Roles of Women**

Economic development is closely related to the advancement of women. Where women have advanced, growth has usually been steady; where women have been restricted, there has been stagnation (UN, 1995). Thus, the role of women is crucial to the overall well-being of many newly emerging countries world-wide.

The roles women have assumed are dependent on any number of factors. These factors include, among others, locality, social status, education, and marital. In rural settings men and women have varying roles depending on the culture. Men often undertake work that is heavier by nature, while women care for livestock, carry out tasks that are often repetitious, like weeding and care of the kitchen garden (Momsen, 1991: 50). Furthermore, women do a majority of the planting and upkeep (pulling weeds) of the family plot. As farming becomes more mechanized, men often assume the role of operator of machines. However, the roles change again as male migration occurs. As men migrate toward urban areas, women often assume the role of primary caretaker of the farm and household (Besteman, 1995: 67).

It is extremely important not to overlook household work. This often brings up dual responsibility as work outside the home is equally important to work inside the home. Female labor force participation in urban areas affects household composition: families tend to be smaller and there may be a shift away from nuclear families to both extended families and female-headed families (Momsen, 1991: 73). Consequently, the burden of household duties falls more heavily on women as females continue to shift towards working outside the

home and furthering their education. Comparatively, Malaysian women spend 112 hours per week working both inside and outside the home, whereas in the US, women spend 59 hours doing similar tasks due to domestic appliances.

### **Historical View of WID**

The period of colonialism for many countries in Africa, Asia, and the Caribbean ended between 1945 and 1965. Over 50 countries clamored for independence, but in many ways they were not ready to become economically or politically independent (Young, 1993). The economy that followed this era had to deal with the remnants; fragmented economies, inadequate systems of education, health, land and water management, communication and transport (Young, 1993: 1).

The UN Commission on the Status of Women was formed in 1946, after fierce lobbying by women representatives. It took close to 30 years before any significant strides were made to include women as an important point of discussion. For example, the UN's First Development declaration (1961-1970) made no reference to women and their issues (Tinker, 1990).

In the early 1970s, women in development emerged from two organizations. What swept America during the 1970s was the legitimization of women's concerns both domestically and internationally as the UN Commission on the Status of Women and the women's movement took shape. It was during this period of time that women's issues and development were conceptually linked (Young, 1993: 19).

Initially these groups of women were more interested in issues of equality before the law and greater access to education than economic development. However, the main objective of both groups was to influence government policy in such a way as to change laws regarding women and to improve women's overall status (Tinker, 1990:28).

The UN declared the Year of the Women in 1975, and women in development issues started to take on a deeper meaning. Women's issues took on a much broader focus, rather than focusing on the needs of the urban and Westernized educated elite; in both developing and industrialized countries (Tinker, 1990:4). This effort spearheaded the UN's Decade on Women, 1976-1985, which started with the International Year of the Women in Mexico in 1975 and was heralded as the beginning of a new era in women's issues, followed by Copenhagen in 1980, and the highly attended Nairobi Conference in 1985. Symbolically, these three conferences legitimized women's issues and brought attention to the devaluation of women's productive and reproductive roles, their inequality and growing poverty in most countries of the world (Tinker, 1990:32).

As women's issues came to the forefront in the early 1970s, the feminist theories and Marxism began to be challenged and concurrently, new theories emerged in essence to challenge old thoughts and to provide a foundation for the many women issues taking shape. The following section takes a closer look at feminism and prevalent feminist theories.

## **Theoretical Framework Surrounding Women's Issues**

### **Feminism**

Feminism embodies many theories rather than being a single discrete theory, and rather than being a politically coherent approach to the subordination of women, is a political commitment—or in some of its forms more an ethical commitment—to giving women their true value. It is not even possible to say that it is a commitment to equality, since some feminists have argued, both in the past and today, for separate spheres of influence, emphasizing difference and complementary rather than equality (Wilson, 1986:8).

Feminism has been the cornerstone in the achievements of women over the past century. These achievements have varied, as the theories supporting feminism have varied from country to country.

The women of Uzbekistan have lived under a largely Marxist belief system since the country's inception in 1928. Socialist indoctrination began immediately upon Russia's takeover of Central Asia in October of 1917. Initially, many Uzbeks resisted this indoctrination and continued to practice Islam. But, over the course of 70 years, Marxism and its feminist beliefs influenced society and changed the lives of both the women and men of Uzbekistan. A holistic view of the other feminist theories will provide a clear picture of what Uzbekistan and its women might embrace considering independence is now a reality.

### **Marxism and Feminism**

In 1903, the Russian Social Democrats declared sexual equality a governmental policy based largely on the work of Marx and Engels in the Communist Manifesto of 1848 (Bridger, 1987:7). Two notable women who contributed to this reform policy were Nadezhda

Krupskaya and Alexandra Kollontai. They published articles on women in this new era. Their combined beliefs fed the communist train of thought, that capitalism needed to be abolished for women to be released from oppression. With the overthrow of capitalism and the establishment of socialist production relationships, human relationships would be unbounded by economic necessity and all exploitation would cease (Bridger, 1987:8). Therefore, women's liberation rested on abolishing the class society, through abolishing private property and capitalism (Peterson & Brown, 1994: 118).

Friedrich Engels felt that the origins of women's oppression were initiated with private property because private property allowed the wealth to remain in the hands of few (Tong, 1989:2). A Marxist answer to the question of women would point to the sexual division of labor and the implication of this division for power differentials between women and men (Humm, 1992:87). Engels agreed, noting private property was viewed as the root of capitalistic evil and that ending the privileges of private property would better the relationships between women and men. Furthermore, Engels felt female subservience would cease, as male economic dominance disappeared, most notably in the work place (Bridger, 1987:8).

Under socialism, everyone would be equal because no one would be dependent on anyone else. Marxism distinguishes a society in terms of productivity and characterizes the history of any society in terms of changes in production (Humm, 1992:87). Production would change as they would have equal access to employment and household duties such as



child care and housekeeping would become a public entity. Also, women would have equal access to economic, social and political activities. (Bridger, 1987).

Unfortunately, Marxism failed to recognize domestic labor, as labor itself and focused primarily on commodity production (Peterson & Brown, 1994:119). The Marxist perception stated that capitalism will bring women and children into the labor markets, therefore eroding the family. The concept of emancipation that swept over the Soviet Union during the formative years and stayed intact for several decades appeared to be an attractive option, but as critics pointed out it became the subject of much rhetoric but little action.

What spawned from Marxist feminism was socialist feminism because of this very reason. Socialist believers felt it was important to include all aspects of a woman's life. Humm (1992:99) describes patriarchy as a system of male oppression of women and with hierarchical relations allows men to control women This was seen through the sexual stratification that started with increases in production, specialization, and complexity of society under communism. Some examples of patriarchy include the development of agriculture and private property (Humm, 1992).

### **Liberal Feminism**

Liberal feminists believe that the customs and laws intact attribute to female subordination. Social encumbrances such as children, family, and community are seen by liberal feminists as areas of concern for women achieving equal status and position in society (Young, 1993:129). Furthermore, they believe that the exclusion is largely due to the sexual

division of labor and that to ensure women the opportunity to a wider range of occupational opportunities is important (Tong, 1989, Young, 1993). As Tong stated, this policy of exclusion from academics, the arts, and other professions, is based largely on the belief that by nature, women are less intellectually and/or physically capable than men (Tong, 1989: 2). According to Young (1993:129), women's integration into the public sphere resides solely on reforming laws and institutions through mainstreaming women economically, politically and socially. WID programs support these beliefs as well.

### **Radical Feminism**

Radical feminists believe Marxist or liberal thinkers have not gone far enough. They believe that patriarchy is characterized by male dominance, power, oppression and competition and they acknowledge that to fully integrate women, the patriarchal system must be dismantled.

A woman's biological make-up is often at the center of radical feminist thought (Tong, 1989). According to Tong (1989:3) what is oppressive is not female biology *per se*, but rather that men have controlled women as childbearers and childrearers. Thus, if women are to be liberated, each woman must determine for herself when to use or not to use reproduction-controlling technologies, reproduction-aiding technologies and each woman must also determine for herself how and how not to rear the children she bears.

As Uzbekistan copes with the changes sweeping across its country many questions will be raised about which road women will follow. Feminist theories of yesteryear will

probably continue to linger for sometime, but the new ideas slowly making their ways across the border may offer a new direction for the women of Uzbekistan. These theories offer insight into the perceptions the women from this study offered. Their perceptions of women in agriculture will largely be based on the ideologies and theories from Marxism and socialism. These theories will be integral as economic development continues to affect all sectors of society, especially the role of women.

### **Overall Themes in a WID Context**

#### **Advocates, Practitioners, and Scholars: Seven Issues**

Three mutually reinforcing dimensions of inequality are income, power, and status. Men have more power than women, more income than women, and higher status than women (Dugger, 1994: 7). With all these disparities between men and women, is it any wonder women have been and still are considered invisible in today's society? Often women are not recognized for the role they play in the family; as someone to look up to or the domestic work they tackle day in and day out (Dugger, 1994). According to Dugger (1994:8), the Gross National Product does not even take into consideration the traditional work being done at home and if it did, it would rise dramatically considering the many domestic roles women.

The central concept behind women in development is economic development which carries with it ideas of legal equality, education, employment, and empowerment (Tinker, 1990). According to Tinker (1990:27) there are three major players related to both men and

women that have been integral in the evolution of seven key issues surrounding women in development (Table 2).

Advocates have come from two different areas. One was the UN Commission on the State of Women and the US women's movement, both started in the late 1960s and early 1970s. They were not interested so much in economic development, but rather equality before the law achieved through group-led actions. Advocates believed influencing policy-makers, through lobbying efforts and organizational efforts, was vital to changing governmental policies that would ensure affirmative action and other equal rights issues be brought to the forefront (Tinker, 1990: 28).

Practitioners are those out in the field, working in development agencies who must fulfill the mandates put forth by the advocates, or policy-makers. Practitioners targeted welfare and efficiency approaches, emphasizing either women's roles as mother or worker. Practitioners believed welfare programs providing free food, free medical care, and free contraceptives made women more dependent. Opponents of this thinking viewed a welfare approach to development as providing an easy answer to many of the difficult and complicated problems in developing countries. It takes less effort to give something away, such as food, than to organize local groups to earn it; and it does not threaten the status quo (Tinker, 1990:37). Today the debate takes that one step further by trying to combine both as a dual role women take on (Tinker, 1990:35).

Scholars are somewhat free thinkers because they are unconstrained by governmental policies or development agencies to test their WID theories and ideologies on the real life

**Table 2. Viewpoints of Women in Development Proponents: Issues and Responses**

<b>Issues</b>	<b>Proponents</b>		
	<b>Advocates</b>	<b>Practitioners</b>	<b>Scholars</b>
Economic development	Adverse impact Integrate women	Efficiency	Count women's economic activities Class/gender
Equality	Legal rights	Income as liberating	Patriarchy major constraint
Empowerment	Form women's organizations	Women-only projects	Global feminism Distinct values
Education	Access to professional schools	Nonformal education	Scientific and technical Revise content for sex bias
Employment	Affirmative action Basis for status	Microenterprise	Sexual division of labor
Welfare	Seen as dependency creating	Participation in health, population, and housing programs	Dual roles Female sphere
Efficiency	Integration	Sectoral programs	Not feminist

Source: Tinker, Irene (1990:36)

problems of women in developing countries. Scholars are grounded in feminist theory, primarily from the liberal and Marxist scholars of thought and argue that advocates and practitioners do not raise basic theoretical issues, but rather seek to adjust current development practices to include and benefit women (Tinker, 1990:48).

In essence, scholars seek to add to the knowledge base already established by the work of many women worldwide. Two issues dominate this field: 1) giving value to women's work, so as to empower them and; 2) adapting or changing development theories to accommodate feminist thinking (Tinker, 1990: 45).

The final three sections points out the scholarly work conducted in agriculture and extension education, adult education, and higher education, all under the WID umbrella. These sections point out literature and scholarly work that has been accomplished in these very important areas.

### **Agricultural and Extension Education**

Research on women in agriculture has affected how women are perceived as active agents of change by providing new approaches to data collection, definitions of work, analyses of relations between home work and farm work, the relationships between household and individual budgets, gender-differentiated resource control and allocation, and girls and women's opportunities for training (Henderson, 1995: xi IN Tinker, 1990).

The role women have played in agriculture, particularly farming systems had largely been ignored until the early 1970s. Since that time, governments and non-governmental organizations (NGOs), alike, have recognized that the role of women is integral to successful economic development projects. As efforts to promote economic development in developing countries proceeded during the 1960, the attention to gender considerations was left out of many projects.

Changes in agriculture during the last 30 years have had dramatic effects on women. One change was the shift from subsistence to cash cropping, which was fed by the colonial

capitalism that swept much of Africa and other countries (Mlay et al., 1996). The labor patterns of women changed, often increasing the overall workload in subsistence cropping, cash cropping and food processing (Henderson, 1995:120). The impact on women depends on the crops produced, size of farm and farming system, the economic position of an individual farm family and the political and cultural structure of societies (Momsen, 1991:51).

Well-documented accounts in sub-Saharan Africa raise three major issues which should be considered in examining women in agricultural production world-wide. They include: sex-stereotyping, resource constraints, and the sexual division of labor (Whitehead & Bloom, 1992:42). First, development has often been hindered at the local, regional, national and international levels because sex-stereotyping has affected how women are viewed. Participatory development practices were encouraged, but as was (and still is) the case, the new technology or information would often only reach the male elite and fail to include women (Tinker, 1990).

Secondly, women are often viewed based on their relationship to the family, as mother and as a continuation of woman's social roles rather than real work (Whitehead and Bloom, 1992). Unfortunately when men do the same work, it is often viewed as economic activity.

Thirdly, women are held back due to time constraints, access to land, labor and capital. Time constraints because of the dual roles many women have. Domestic labor coupled with agricultural production, often mean long days as economic development took hold and continues to take hold in many developing countries.

Women are often neglected regarding the services offered by extension. According to Whitehead and Bloom (1992:45)

- Women have few agricultural extension services directed at them, but are mainly the recipients of home economics extension.
- Very few women farmers are contacted by agricultural extension workers.
- The staff of agricultural extension services are overwhelmingly male.

The trickle-down effect, where development projects provide services and extension assistance to men with the hope of it reaching the female farmers, failed. Extension programs worldwide require the special attention aimed at gender issues and the contributions to the agricultural economy. In Africa where close to 80% of the agricultural production is conducted by women, only 7 percent of services were devoted to women in 1988 and 1989 (Besteman, 1995:58).

Attention needs to be focused on the dissemination of information to female and male farmers, recruiting female and male extension agents, and training both sexes on issues of gender. According to Blumberg (1995), if females involved in agriculture are specifically targeted, progress can be made.

### **Adult Education**

Both teachers and students are integral players in adult education. Teachers in higher education are a constant factor and often play an important role in the lives of their students. A constant factor in that teachers serving as role models, often influential in the academic, professional and personal lives of their students. Technical proficiency coupled with



interpersonal skills such as caring, trust, and encouragement are essential for an adult educator to effectively reach her/his audience (Galbraith, 1990:4). Furthermore, there are many sides to an adult educator. Adult educators are involved in the entire educational process of a student, from program developer to counselor and role model (Galbraith, 1990).

The primary purpose of an adult educator is to deliver information in a way that will be received by the student. However, the method of delivery and more so the philosophical base under which it is derived, may change depending on the person, institution, and/or country. The adult educational philosophy undertaken in the former Soviet Union fell under the liberal philosophy. This philosophy stresses development of intellectual power of the mind (Galbraith, 1990:46). Content mastery is emphasized with the educator viewed as the expert (Galbraith, 1990:4).

As Elbashir (1996:22) points out, the adult learner is vulnerable in situations in which prior education may no longer be sufficient to prepare him or her to cope with new and complex issues. Educators in Uzbekistan will face this unique situation as more information and knowledge enters its borders and more Uzbeks travel to other institutions for different perspectives.

## **Education**

Education plays a significant role for women, as it offers opportunities and provides decision-making skills. As many developing economies emerge, skills are needed to meet the

demand, the new technologies, and ideas that are brought forth. An education can supply the skills needed to improve and/or change a woman's status (Boserup, 1990).

Unfortunately, of the 60-70 percent of illiterate people worldwide, a majority are women, which has remained constant from 1970-90 (Lycklama a Nijeholt, 1991:148). Furthermore, the number of girls enrolled in schools is relatively low. Africa has a particularly low number of women in higher education (29 percent), although they make up 45 percent of primary school pupils and 41 percent of secondary school pupils (Lycklama a Nijeholt, 1991:148).

As development paradigms have progressed, so have educational opportunities. Initially, education was offered for males and those from the most privileged families, thus widening the gap between those superior and those subservient. However, as development ideologies grew, education gradually reached those from disadvantaged groups as it became obligatory and free (Boserup, 1990:19). The educational level of women has risen faster than men, along with their importance to the labor market. However, a broad range of discrimination still exists, that includes lower earnings when compared to men (Roy et al., 1996:22). The gaps in education have narrowed, but nowhere in the world have they completely closed (Boserup, 1990).

### **Women in Higher Education**

The general nature of women's problems do not vary from country to country, but rather the problems vary in intensity (INSTRAW, 1996:19). For women employed in higher

education the same analogy can be made. The number of women employed in higher education as full-time staff varies and diminishes, especially in regards to those teaching and conducting research (Davis et al 1994:15).

The imbalance in the number of women professors in higher education can be explained in several ways. According to Acker (1994) there are three areas of concern that are subtle in nature, yet lie at the heart of women in higher education. They include the conflicting demands of family and career, minority status relative to other staff, and the male domination of knowledge and practice (Acker, 1994: 125).

Higher education is male dominated and can be explained by the system of promotion currently in tact. Academic success is achieved through publication and for many women this often competes with family needs (Acker, 1981 & 1994, Delamont, 1996). The demands of family and career for women in higher education are quite overwhelmingly. As Acker points out many professional women no longer think in terms of a choice between family and career but expect themselves to cope with both (1994:126). Furthermore, attaining more education often leads to many women postponing child bearing and rearing. Attaining more education also determines the number of children a woman has. However, the arrival of children often coincides with the career stage when most women are expected to make an impact in their field (Acker, 1994). In the end, many women make a sacrifice for either the career or the family or choose to juggle both.

Juggling both career and family in the world of academia has a significant impact on the lives of many women professionals. According to Davis et al., (1994:29), when

compared to men, academic women are significantly more likely to be never-married or divorced, to report less stable marriages, to have fewer children, and to see their families as detriments to their careers.

Women are a definite minority in higher education. Sutherland (1985:183) reviewed the situation of women who teach in universities in five countries and found that, although prejudice against women was not cited as often as she expected it to be in explanation of women's minority position, there does remain the possibility of unconscious prejudice manifesting itself. . .in failure to perceive women as appropriate for initial appointments or for a kind of gradual initiation into the profession (Sutherland, 1985: 183 IN Davis et al. 1994: 17).

Up until the last twenty years women and their views have been left out of research and from the knowledge base of most disciplines. According to Davis et al (1994: 10) . . .the reality behind the veneer shows that despite (and, possibly because of) the flaunting of equal opportunities policies and of successful women who have made it by politically current institutions, most women continue to feel disadvantaged and oppression in relation to their prospects, representation and needs within higher education.

Success is attainable in higher education, but at what price? The idea of networking is essential to build contacts that will in turn build confidence in ones academic area. Conferences, seminars, collaborations and friendships are an integral part of the network that should be established during the forming years of in a profession. This will lend itself to friendships, personal contacts, and support, all essential for women in academia (Davis et al.

1994). Davis et al. (1994:20) further adds to that stating it is essential for women to establish and build networks that will enhance promotion and provide guidance, support and advocacy for the long-term. Women require the same socialization into the profession as men, maybe even more.

### **Conclusions**

The perspectives gathered in this study look at both women in the field of agricultural production and those in academia. This study attempts to describe the role of women in agriculture in Uzbekistan from a women's perspective with implications to agricultural education. The areas explored in this chapter are highly interpretivist. However, the areas of women in development, agricultural and extension education, education in the form of adult, secondary and post-secondary, and feminist theories brings concepts together that will form the foundation of this study.

### **Research Questions**

The following research questions framed the study and provided a basis for an analysis of the situation at the time of the study:

1. What are the specific roles and responsibilities of selected women agricultural educators at TIIAME?
2. What are the perceptions of selected women agricultural educators at TIIAME regarding the role of women in agricultural professions?

3. What demographic factors describe women at TIAME?

## CHAPTER III. METHODS AND PROCEDURES

### Purpose

The purpose of this study was to describe the role of women educators at The Institute of Irrigation & Agricultural Mechanization Engineers (TIAME) in Tashkent, Uzbekistan, and to determine the implications for agricultural and extension education.

Specific objectives for the study include the following:

1. Identify specific roles and responsibilities of women agricultural educators at this institute.;
2. Identify perceptions regarding the role of women in agricultural professions.; and,
3. Develop a demographic profile of women agricultural educators.

### Qualitative Research

Qualitative research is naturalistic in nature and comprises one of the two major research paradigms used today (Guba & Lincoln, 1981; van den Hoonaard, 1997). The other paradigm is scientific and is often synonymous with quantitative research. It is important to compare the two, so as to better understand the reasoning and implications of using one versus the other. Although, according to Miles and Huberman (1994), trends point out that researchers are beginning to incorporate both into research studies. Table 3 highlights some general characteristics of each paradigm as suggested by Lincoln and Guba (1981).

Scientific research or quantitative methods derive and verify hypotheses with outcomes of logically deduced theories (Guba and Lincoln, 1981:68). Whereas, naturalistic

methods derive theories based on real-world data and not hypotheses. Qualitative research can delve into the lives of individuals to take an in-depth look at people through interviews and observations to provide a more holistic view. Therefore, the overall purpose of scientific inquiry is to verify the hypothesis (Ho) initially laid out in the study, whereas naturalistic

**Table 3.** Derivative Characteristics of the Scientific and Naturalistic Paradigms

<b>Paradigms</b>		
<b>General Characteristics</b>	<b>Scientific</b>	<b>Naturalistic</b>
Preferred techniques	Quantitative	Qualitative
Quality criterion	Rigor	Relevance
Source of theory	<i>A priori</i>	Grounded
Purpose	Verification	Discovery
<b>Methodological Characteristics</b>		
Instrument	Paper & pencil or physical device	Inquirer (often).
Timing of data collection	Before inquiry	During and after inquiry
Design	Preordinate	Emergent
Style	Intervention	Selection
Setting	Laboratory	Nature
Treatment	Stable	Variable
Analytic units	Variables	Patterns
Contextual elements	Control	Invited interference

Source: Guba and Lincoln (1981)

approaches allow the researcher to formulate and create hypotheses based on synergistic methods.

As Table 3 shows, quality criteria are put in terms of either rigor or relevance. Rigor is often explained through internal and external validity, reliability, and objectivity. Relevance represents naturalistic inquiry as it works to show a connectedness to people. Naturalistic



inquiry conducts validity and reliability checks, but these checks are often questioned because of the human factor involved. Naturalistic inquiry is heavily grounded in human-generated methods and data and this is often one of the biggest criticisms of this paradigm (Lincoln & Guba, 1980) and furthermore, why it is often viewed as not rigorous.

Scientific research is often questioned on its relevance to humans, as it is elegantly designed, but limited in scope (Lincoln & Guba, 1980:66), making it difficult to generalize to other settings. Whereas, naturalistic research is grounded on relevancy to the real world and human problems, but as mentioned, is often criticized for its reliability and objectivity.

The methods used to conduct both scientific and naturalistic research vary greatly as Table 3 points out.

### **Approaches**

Qualitative research has several different approaches, which vary in methodology and data collection. They include: interpretivism, social anthropology, and collaborative social research (Miles & Huberman, 1994). Interpretivism is concerned with how the social world is interpreted, understood, experienced or produced (Mason, 1996:4). Coding is used in some cases, but not all. Rather the researcher continually reads the transcribed data to obtain the true essence or voice of the respondent. Also, in qualitative research the researcher assumes the role of instrument and therefore has to remain objective throughout the inquiry.

Ethnography is one of the primary methods that falls under social anthropology. Social anthropology is very similar to interpretivism, in that it stays in close contact with the

subject and takes time to get to know the people and their community and yet it is different. This method involves gathering data from various sources, which include: recordings, artifacts, diaries, videotapes, and films all in addition to interviewing, pouring over transcriptions, and successive observations. Social anthropologists are interested in the behavioral patterns in language use, artifacts, rituals, and relationships as a way to better understand a people and its society.

Collaborative social research, as its name implies, involves three ingredients: a project, the people, and the researcher. The researcher works with local people to design a field experiment and then implement it. The aim is to transform the social environment through a process of critical inquiry—to act on the world, rather than being acted on (Miles & Huberman, 1994:9).

All three approaches have overlapping features: participant observation, sensitivity to participants, a holistic perspectives and the constant pursuit of underlying themes, which all fall in line with naturalistic studies. The following section provides a look at analytical techniques that are common in qualitative research.

## **Features**

According to Lincoln & Guba (1985), qualitative research methods consist of techniques, such as interviewing and observations, which use the researcher as the instrument for collecting and analyzing the data. As Merriam (1988) points out, qualitative is best when

the research is interested in insight, discovery, and interpretations rather than hypotheses testing.

According to Miles and Huberman (1994:6), there are several core features associated with qualitative research. They include:

- Prolonged contact with a field or life situation reflective of the everyday life of individuals, groups, societies, and organizations
- The researcher's role is to gain a holistic overview of the context under study: its logic, its arrangements, its explicit and implicit rules.
- The researcher attempts to capture data on the perceptions of local actors from the inside. Preconceptions are noted.
- The researcher isolates certain themes with constant work to fit within the bounds and scope of the study.
- A main task is to explicate the ways people in particular settings come to understand, account for, take action, and otherwise manage their day-to-day situations.
- Relatively little standardized instrumentation is used at the outset. The researcher is essentially the main measurement device in the study.
- Most of the data analysis is done with words. They can be organized to permit the researcher to contrast, compare, analyze, and bestow patterns upon them.

### **Design of Study**

The purpose of this study was to identify roles and responsibilities of women educators at TIIAME, as well as gain their perspectives on women in agriculture professions in Uzbekistan. A qualitative design was used to conduct the study. Three techniques were used: historical research, in-depth interviews and observations. Their use in this study will be explained below.

### **Historical research**

Historical research was used to gain a better understanding of women in Uzbekistan. To understand women in Uzbekistan, a historical look at who and what shaped their lives was essential in seeking in-depth information for this study. This information provided a foundation and helped explain distinct characteristics of women in Uzbekistan and what characteristics they share with women world-wide.

### **Interviews**

The data were collected through personal interviews. Interviews began during the fourth week of the field research visit to Uzbekistan. The interviews were conducted between June 10, 1996, and July 20, 1996. All were done in person and at the respondent's office or arrangements were made elsewhere, if the first choice was inconvenient. A translator was present during each interview which lasted approximately one and one half hours.

Two translators were utilized, who were both students at TIAME. Initially, a female translator was requested due to the nature of the study with the second translator as a backup. She had studied at Iowa State University just prior to the researcher's arrival in Tashkent.

The questionnaire consisted of three objectives: 1) Specific roles and responsibilities of female faculty members 2) Perceptions regarding the role of women in agricultural professions 3) Demographic profile of women agricultural educators. Sufficient time was given to familiarize the translator with my research topic and the questionnaire itself. Both

translators received a copy of the purpose and objectives while students at Iowa State University. They were briefed on the purpose of the research, given material to read on women in development and time was spent answering questions, so they felt comfortable with the research questions prior to Uzbekistan.

There were follow-up meetings to further discuss the research once in Tashkent. The backup translator was male and was used mid-way through the 14 interviews conducted, as several unforeseen constraints limited the time the female translator could spend translating, coupled with the fact many professors had summer vacation starting in early July. Both translators helped with the remaining interviews.

The interviews were not tape-recorded due to early difficulties with the recorder and limited access to other types of recorders. Introductions and a mention of thanks for agreeing to participate always started the interview. The translator proceeded by reading (in Russian or Uzbek) the purpose of the study and how the answers were important, would be kept confidential, and were very much appreciated. Then the respondent was asked whether she agreed to be interviewed and in doing so, the respondent signed her name on the questionnaire schedule. All 14 respondents agreed to be interviewed.

Each question asked by the researcher was translated immediately and recorded in writing by the researcher. The translator would proceed to the next question, if the researcher did not have any clarifications with that question. Once the interview was over, the researcher thanked the respondent and asked if a follow-up interview was possible. All 14 said, they would be willing to participate in a follow-up interview, but many expressed they

would either be going on vacation or leading students on internships to the fields or collective farms in early July. Therefore, follow-up interviews were taken for as many interviews as time permitted.

### **Population and Sample**

The population consisted of women professors at Tashkent Institute of Irrigation and Agricultural Mechanization and Engineers (TIIAME). Of the 572 total professors at TIIAME, approximately 80 were women. Four to five were full professors, 35 were associate and 40 assistant professors. TIIAME is the fourth largest agricultural university in Uzbekistan and is known throughout Central Asia for its extensive research in irrigation.

A purposive sampling method was used to derive the sample. The Director of the Graduate College at TIIAME recommended a list of women professors that fit the criteria outlined in the purpose of this study. Professors were recommended based on the following criteria:

1. Professor at TIIAME (their equivalent to Assistant, Associate, Full Professor);
2. Uzbek or Russian nationality and;
3. Taught an agricultural or related subject.

Each interviewee was given a code name for the sake of confidentiality and were asked their permission to conduct the interview. The interviewees were asked by the Director of the Graduate College to participate in this study and a time was set to meet with the researcher and conduct the interview.

### **Instrumentation**

Data for this study were collected through the use of interviews. The questionnaire schedule was developed based on the literature review and the practical use of instruments developed by Kresha Eastman (1988) and Annette Kiefer (1994).

The interview schedule consisted of three parts:

1. The first part consisted of nine open-ended questions to identify specific roles and responsibilities of female faculty members. Specifically, their role and responsibilities at THIAME, with other professors and their department as a whole, among students, as well as, their responsibilities outside the institute.

2. The second part consisted of seven open-ended questions and four close-ended questions to identify perceptions regarding the role of women in agricultural professions. The close-ended questions were added and closely mirrored the first seven questions. This was done for two reasons. First, after conducting the first interview the respondent seemed confused, unsure of the questions and very hesitant. Based on that experience, the interview schedule was evaluated for readability and understandability. Upon reviewing the questions, the researcher decided to add several questions to enhance the interview schedule. Secondly, additional questions were added as a way to insure what they had said in the previous seven questions was consulted. The close-ended questions used a Lickert-type scale, which included strongly agree, agree, indifferent, disagree, and strongly disagree to measure the level of agreement with the statement. In addition, two open-ended questions were added to gain

further insight into what specific agricultural professions they thought were viable for women.

3. The third part of the questionnaire was to develop a demographic profile of women agricultural educators. The following are the variables in this section:

- \* Age
- \* Martial Status
- \* Number of children
- \* Religion
- \* Social Status
- \* Classes taught
- \* Number of students taught; male and female
- \* Number of other women educators known personally

The interview schedule was reviewed by the graduate committee overseeing the study.

Appendix A includes a copy of the interview schedule. After corrections were made, the interview schedule along with a brief description of the procedures used, were submitted to the Human Subjects Review Committee at Iowa State University which approved the study (Appendix B).

### **Observations**

The first three weeks in Tashkent were primarily set aside for cultural adjustments and language training for the researcher. Meetings were arranged with the administration at



TIAME and others outside the institute. In addition, observations were continuous throughout the researchers time in Tashkent. Observations were conducted on campus, in the *stoloviya* or school cafeteria, at the open markets and near vendors on the streets. This was done to get a sense of the people and their daily life. The researcher was a guest at a traditional Muslim wedding and visited Namangan, a heavily Islamic city in Eastern Uzbekistan. The researcher, also spent many afternoons throughout Tashkent casually observing people: the steps of *Mustakalik Madon* (Independence Square), in Amur Timur Park or on Broadway.

### **Analysis of Data**

The data were entered into Ethnograph 4.0, a qualitative analysis program. The data were then coded and analyzed on the basis of code words. Complementary phrases were highlighted among the 14 respondents for each code word. Furthermore, the interviews were read through many times to become familiar with the data and to note similarities, as well as differences in the data.

### **Validity**

The following procedures were conducted to assure validity. Triangulation was used by conducting historical research, interviews and observations. All three helped in confirming conclusions drawn from the data. Furthermore, follow-up interviews assured the researcher that what was said by the respondent, was in fact translated correctly, honestly, and

accurately by the translator. Due to unforeseen circumstances, the researcher did not have follow-up interviews with 3 of the 14 respondents.

### **Limitations of the Study**

The study may have been influenced by the following limitations:

1. The study was limited to purposively sampled women educators at TIIAME in Tashkent, Uzbekistan.
2. The study was limited to the degree to which the respondents interpreted, viewed, and described their perceptions regarding the agricultural industry for women.
3. The interview schedule was limited in scope and may not have identified all relevant perceptions of the women in this study.
4. The researcher was not fluent in Russian or Uzbek, therefore a translator was needed. All the interviews were conducted in Russian language and then translated into English.
5. Translation consistency was a concern, as a second translator was used mid-way through the fourteen interviews conducted.
6. The time allowed for each interview was 1.5 hours. Considering the translation from English to Russian and then Russian back to English, much time was taken in translation alone. More time would have allowed more follow-up and feedback with each respondent.
7. There was limited time to conduct follow-up interviews with each respondent. The study was conducted in early to mid-summer, when many professors started to leave for summer vacation. Therefore, some follow-up interviews were not conducted.

8. Observations of women as educators and those in production agriculture were limited. TIIAME classes ended just as this study began, so observing women educators in their various roles was limited. Observing women in production agriculture and in other work, was limited due to logistical constraints.
9. There was limited contact with both translators upon returning to the States, as one was killed in a car accident three days prior to the researcher's departure.
10. It cannot be inferred that the findings of this study apply to any or all other women agricultural educators in Uzbekistan.

#### **Assumptions of the Study**

The following basic assumptions were made for the purpose of this study:

1. The participants in this study fully understood the purpose and objectives of this study.
2. The participants in this study were honest, accurate and objective in their responses.
3. The interviews would be tape-recorded and transcribed at a later date. Due to problems with the tape recorder, there was no choice but to take detailed field notes.
4. The translator understood the purpose of the research and the questionnaire.
5. The translator would be accurate, honest and objective with each interview.
6. There would be only one translator and the individual would be female, considering the nature of the study.
7. A qualitative study was the best means to obtain the necessary information.

8. The findings would be useful to the women and others involved in policy-making, organization and implementation of programs for women in Uzbekistan and other developing countries.

### **Conclusions**

In conclusion, the purpose of this study was to identify perceptions of female educators regarding the role of women in agriculture in Uzbekistan and to draw implications to agricultural education. The specific objectives were to identify: 1) specific roles and responsibilities of female faculty members; 2) perceptions regarding the role of women in agricultural professions; 3) a demographic profile of women agricultural educators.

This study is qualitative in nature and grounds itself in philosophical explanations which are broadly interpretivist. The researcher, as the instrument, dictates the interpretation which encompasses how the subject is perceived, understood, experienced, or produced (Mason, 1996:4). This study was approached by looking at several areas (WID, agricultural and extension education, adult education and women in higher education) and bringing them together to create a synergistic whole which was holistic in nature and addressed the objectives of the study (Campbell, 1993:115).

By conducting the study in this fashion, a theory emerged which draws largely on the relationship between the philosophies of women in development, the philosophies of feminism, the philosophies of agricultural and extension education, adult education, and those

of women in higher education. It is the mixture of these philosophies that help explain the nature of the 14 women agricultural educators interviewed in this study.

## CHAPTER IV. FINDINGS

### Purpose

The purpose of this study was to describe the role of women in agriculture as perceived by educators at the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers in Tashkent, Uzbekistan. The study focused on implications of the data to agricultural and extension education. Specific objectives of this study are to (1) identify specific roles and responsibilities of women agricultural educators at this institute (2) identify perceptions regarding the role of women in agricultural professions; (3) develop a demographic profile of women agricultural educators.

This chapter presents the results and findings of this study. The findings reported in this chapter were based on qualitative interviews with 14 women professors at the Tashkent Institute of Irrigation & Agricultural Mechanization Engineers in Tashkent, Uzbekistan. Each interview lasted approximately one and a half hours. The interviews were conducted with the use of a translator and each interview was translated while it was taking place. The data will be presented in three general areas based largely on the objectives of the study. These are 1) demographic characteristics of the respondents 2) roles and responsibilities of women professors at TIIAME 3) perceptions of women professor at TIIAME towards women in the agricultural industry in Uzbekistan.

To establish reliability of the answers given, follow-up interviews were conducted with nearly all respondents. During the follow-up, responses were translated back to the respondent and confirmed for clarity.

All participants were given code names for the sake of confidentiality. The data will be presented in the order they were collected. The demographic data will follow a brief description of each interviewee. The following are the names of participants, as referenced throughout this chapter: Anne, Beth, Claire, Elaine, Ellen, Jacqueline, Jennifer, Karen, Kimberly, Lauren, Liz, Sarah, Sophie, Valerie.

### **The Interviewees**

**Anne:** Growing up around agriculture, it was always Anne's ambition to pursue a career in agriculture. Her father was a combine operator and working with him in the cotton fields increased her interest in her now chosen profession. Now an Assistant Professor at TIIAME, Anne, teaches machinery usage for both cotton and wheat. She teaches 37 students with 11 being female. She has been at TIIAME since 1981 or 15 years. Anne is 46 years old, married since 1950, Muslim, and has two daughters aged 12 and 18.

**Beth:** Living 30 km from Tashkent, Beth grew up in the country. As a young girl she worked in the cotton fields and wanted to study agriculture in her future. After her undergraduate education, she wanted to pursue higher education in her field of study, but because of her gender she had difficulties gaining admission to Saratov Agricultural Institute to pursue her graduate degree. Through perseverance and family support, she is now an Assistant Professor at TIIAME in machinery usage. She teaches 16 students with no women in her classes. Beth is 40 years old, Muslim, and married with one 4 year old boy.

**Claire:** One of the biggest motivating factors for Claire to enter agriculture was the fact that her mother was a professor at TIIAME and was one of the first women to work with hydraulics. She worked in this field for many years and inspired Claire to enter into a similar career. Claire is a *Docent* or Associate Professor at TIIAME and Assistant Head of her department. Her field of expertise lies in agricultural irrigation and has been at TIIAME since 1979. She teaches around 100 students with few female students. Claire is 56 years old, married with 2 children and is atheist because of the communist influence throughout the time of Soviet rule. She will retire in one year.

**Elaine:** Sitting in her office, Elaine is surrounded by pictures of dams she helped construct during the course of her career. She has been a part of some of the largest canal and dam projects in Uzbekistan spanning the past 20 years. In addition to her role as an engineer, she is also a teacher and teaches 40 students with 5 of them female. Elaine is 47 years old, married twice, but now single. She has one daughter, who is 26 years old. Elaine is the only Russian of the 14 interviewed in this study.

**Ellen:** For 26 years, Ellen has been a teacher. Twenty of those 26 years have been in the capacity of *Docent* at TIIAME in the field of Agricultural Melioration. Melioration is studying the changes occurring within the soil. She teaches 50 students of which 5 are female. She is 56 years old, married for 20 years and has one son, who is 18 years. Ellen is one of the two atheists in the study.

**Jacqueline:** Upon entering high school, Jacqueline's intention was to specialize in agriculture. While taking a Russian literature class, she declared her desire to be an agronomist



someday. She went on to get her degree and spent nearly 20 years at a research institute. After finishing there, she came to TIIAME and is a *Docent* in Agricultural Economics. She teaches 50 students with 5-8 being female. Jacqueline is 50 years old, married with a daughter and a son, ages 23 and 25 respectively and she practices Islam conservatively.

**Jennifer:** A graduate from Odessa as an Engineer in Cooling Systems, Jennifer went on to work at the Ministry of Dairy and Meats for 34 years. Following this experience she transferred to TIIAME, where she is currently a *Docent* providing lectures and advice for students in cotton engineering. She teaches 36-45 students of which 4-5 are females. Jennifer is 50 years old and has been married for 22 years. She has one 22 year old daughter and is Muslim.

**Karen:** Feels very strongly about higher education and sees socialism as the vehicle that has allowed women to progress. For nine years, Karen served on the Government Council on Planning and Forecasting, dealing primarily with women's issues and credits socialism for the strides made by women. Since then she has worked at TIIAME for 10 years as a *Docent* and 5 years as a full professor. Karen is 58 years old, married for 25 years, has three children with 2 daughters and 1 son, and 5 grandchildren. She is a practicing Muslim.

**Kimberly:** Kimberly did not believe she would have a career at TIIAME. Initially she wanted to be a mathematician and was for nearly 10 years, but fate would dictate otherwise. She has been in her current position, as a *Docent*, for three years. She teaches about 120-160 students related to her discipline of hydro construction of which 12-16 are

female. Kimberly is 40 years, married with 2 children, a girl of 15 and a boy 17 and is Muslim.

**Lauren:** Due to her father's persistence and motivation, Lauren gained her Ph.D. in economics and water management and is currently a *Docent* at TIIAME. She has been at TIIAME since the summer of 1995 and teaches close to 80 students with less than 10 females. Lauren is 39 years old, married with 4 children, 3 girls and 1 boy and is Muslim.

**Liz:** With a specialization in water supply & sewage, Liz has been teaching for 11 years and nine years at TIIAME. She teaches 60 students with 5 females in her classes. Liz is 52 years old, married with two children, a daughter of 25 years and a son of 23 years, and 2 grandchildren. Liz is Muslim.

**Sarah:** Currently a *Docent* at TIIAME and has been for two years, Sarah currently teaches agricultural economics to approximately 140 students. Of those, 42 or 30% are females. She is 33 years old and has a 5 year old son. Sarah is the only interviewee not married.

**Sophie:** With a young family, Sophie entered graduate school and finished in three years. Time did not allow much time for her and her family. Today she is teaching automation and technical processes at TIIAME and has been a *Docent* for the past six years. She has been teaching for nearly 13 years. Sophie is 45 years old, Muslim, and married with two children, a daughter age 11 and a son 18 months old.

**Valerie:** Has been a faculty member since 1987 and was an Assistant Professor until 1993. At that time she was promoted to *Docent* and has been since that time. Valerie works

in the department of chemistry and teaches inorganic chemistry. She teaches nearly 270 students with nearly 66 or 25% female. Valerie is 45 years old, married with one 10 year old boy and is Muslim.

### **Demographic Data**

Findings reported in this section were generated from Part C of the interview schedule. Participants in the study were all women in their mid-30s to late 50s. The ages ranged from 33 to 58 with a median age of 46.7 years. Claire, aged 56, said she would retire in one year. She also, noted that in Uzbekistan, women retire at the age of 55, while men retire at age 60; that was the general rule. In her case she decided to wait and retire at a later age.

All of the participants were married, except for Elaine and Sarah. Elaine had been twice divorced and was now single with a 26 year old daughter, whereas Sarah was not married, but did have one 5 year old son.

All the women had children, with the number of children ranging from one to three. The children ranged in age from a 4 year old son to a 26 year old daughter. Six women had only one child, four had sons and two had daughters. The remaining eight women had two or more children. Anne had two daughters and no sons, uncharacteristic for a Muslim household in that a son was highly desired. Karen and Lauren both had three children; each with two daughters and one son.

The majority of the participants practiced Islam, but in varying degrees. Lauren believed in Islam, but said she will practice more diligently when she is older. She has a few

problems which take a considerable amount of her energy. She provides and cares for her children and has many responsibilities with her position as a *Docent*. Both responsibilities have increased her overall workload. Whereas Beth and Valerie believe in Islam, but did not follow the Muslim tradition of praying five times per day.

At the other end of the spectrum were those who were strong believers of the Islam faith. Liz was a strong Islam believer and said Islam plays a role in whether or not women pursue careers. Liz's religious beliefs influences her actions and behaviors, as she tries to pursue a career. For her it is difficult to wear the veil because she was afraid of how other students and teachers would perceive her. She did not wear the veil at the institute or while teaching, only to and from the institute did she cover herself. During the interview, Liz demonstrated how the veil is worn by most Uzbek women. A scarf was wrapped around the head and tied under the chin with the entire face showing. None of the other interviewees wore a veil during the interviews.

Sophie was also a strong believer in the Muslim faith and she prayed, but not every day. She believed it was not necessary to cover her head, but rather it was more important to understand the meaning of veiling and why women cover before actually choosing to do so.

Both Beth and Ellen were atheist and Beth said it was the communist influence that turned her away from Islam and feels no one believes in religion anymore. Only Elaine was Russian orthodox.

There appeared to be three different social strata for the interviewees. Social status was compared to level of income and 10 of the 14 women interviewed considered their

---

income as middle. The perception of middle income varied among the interviewees. The monthly income ranged from 1,300 soum (Uzbek currency) to 3,000 soum per month, which at the time was equivalent to \$33.00 to \$75.00 per month.

The academic and honorary degrees received by these women were dominated by the *Grampta* award. This award was given while still under Soviet control to both women and men. The *Grampta* is a standard award given for a variety of reasons. Some examples include: Hard Work, Community Service, Research, and Advising. The following is a *Grampta* that Elaine received several years ago for International Women's Day. It read,

For your contributions in preparing highly qualified engineers and

for your dedication to community service on the occasion of

March 8th - International Women's Day 1993

Monetary awards were often given in conjunction with *Grampta* and several participants preferred monetary awards rather than just a certificate. However, for Karen, she had not received any award because she wasn't a full-time employee and therefore didn't receive many of the monetary awards her colleagues did. This has made conducting her dissertation work difficult, as many used these monetary awards to further their research. Therefore, Karen had to seek outside sources of funding to continue her dissertation research.

The Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME) is divided into seven faculties. For comparison, a faculty is equivalent to a college in an American university. Faculties at TIAME included: Irrigation, Agricultural Engineering, Farm Electrification, Land Management, Agricultural Economics, Foreign

Students, and the Research Farm. Each faculty is divided into several departments. The Faculties of Irrigation and Agricultural Engineering being the largest have 12 to 14 departments each. Table 4 summarizes the participants' areas of expertise. Most of the interviewees were in either the Irrigation or Agricultural Engineering faculties. Three women were from the faculty of Agricultural Economics. The women's areas of specialization were based on the highest degree earned.

All the interviewees taught courses and the number of meetings per week ranged from 4 to 15. Each course was two hours in length and was either a lecture or *pratika* (or lab work). A typical day of teaching would consist of lectures in the morning from 8:00 am to 11:20 am with a ten minute break. Faculty and students alike would have a forty minute lunch break until noon. At noon, lab work or *pratika* would begin and go until 3:00 pm. According to Beth this included teaching students how to plant and harvest cotton. Beth taught the basic principles of machinery usage and this subject relied heavily upon the *pratika* or lab work/internship practice in the cotton field. Elaine taught the principles of dam construction and this subject, also, relied upon the *pratika* to teach practical skills.

The number of classes depended on the interviewee's responsibilities to their department. All of the interviewees taught at TIIAME, whereas only several of the fourteen women conducted research. Beth, Claire and Elaine all spent 25% or less of their time conducting research.

The number of students taught ranged from 16 to 270 students and this number

---

**Table 4.** Areas of specialization for interview participants (N=14)

	<b>No. of Women</b>
Machinery Usage	2
Water Providing (Irrigation)	1
Hydro-Technical Construction	2
Agricultural Melioration	1
Agricultural Economics	3
Cotton Engineering	1
Construction Engineering	1
Automation/Technical Processes	1
Agricultural Economics/Water Management	1
Inorganic Chemistry	1

depended largely on the number of classes taught. The number of women in these classes averaged 10% of the total students. However, Sarah's class in agricultural economics had females represent 30% of total students.

### **Roles and Responsibilities**

One of the major objectives of this study was to identify the roles and responsibilities of female faculty members at TIIAME. The following section projects the findings on academic rank, years in academic rank, subjects taught, duties and responsibilities as a professor, role among undergraduates, work environment and responsibilities outside of TIIAME.

### Academic Rank

The respondents were grouped according to the rank achieved at TIIAME. When asked for their academic rank, a majority of the interviewees were Associate Professor or *Docent*. Table 5 describes what rank the 14 interviewees had.

### Number of Years in Academic Rank

Table 6 shows the range of years held by the 14 interviewees. The distribution was wide spread with women in the Associate Professor rank. The number of years ranged was from 1 to 20 years. The average number of years held in each rank was 8 for Assistant Professor, 7.2 for Associate, and 5 for the one Full Professor.

**Table 5.** Academic rank of interviewees (N=14)

	No. of Women
Assistant Professor	2
Associate Professor	11
Full Professor	1

**Table 6.** Number of years in academic rank (N=14)

	Range of Years
Assistant Professor	1-15
Associate Professor	1-20
Full Professor	5

### Subjects Taught

The subjects taught corresponded to their area of expertise. Table 7 indicates the interviewee areas of specialization and subjects taught. Only Jennifer taught subjects different from the degree she had earned. Her area of expertise was Cotton Engineering, but



**Table 7.** Areas of specialization and subjects taught for interview participants

<b>Name</b>	<b>Area of Specialization</b>	<b>Subjects Taught</b>
Anne	Machinery Usage	1. Basic principles of how to use machinery
Beth	Machinery Usage	1. Theory of mechanization 2. Basic principles of how to use machinery
Claire	Water Providing (Irrigation)	1. Agricultural water providing: includes water usage and conservation practices.
Elaine	Hydro-Technical Construction	1. Principles in constructing dams, reservoirs construction for rivers and lakes. Electricity technology.
Ellen	Agricultural Melioration	1. Agricultural melioration
Jacqueline	Agricultural Economics	1. Agricultural economics 2. Farm Management
Jennifer	Cotton Engineering	1. Cooling systems technology 2. Cooling & ventilation systems 3. Cooling & heating pumps for the preservation of food.
Karen	Agricultural Economics	1. Regulation of social & economic problems in Uzbekistan 2. Productive forces of raw materials
Kimberly	Hydro-Technical Construction	1. Basic research methods
Lauren	Agricultural Economics	1. Water management economics 2. Water construction economics
Liz	Construction Engineering	1. Conservation practices to improve water quality 2. Water & sewage treatment systems
Sarah	Agricultural Economics/ Water Management	1. Agricultural economics 2. Water management
Sophie	Automation & Technical Processes	1. Basics of automation
Valerie	Inorganic Chemistry	1. General chemistry

due to the considerable amount of time she worked for the Ministry of Dairy & Meats, her area of expertise changed from the Ph.D. she had earned.

### **Professorial Duties and Responsibilities**

The interviewee's responsibilities at TIAME were similar in nature. A day would consist of lectures and *pratika*. *Pratika* refers to both teaching lab work at TIAME or completing an internship. The *pratika* were linked to the lectures. The lectures were provided as foundation material for the *pratika*. The interviewees said that the *pratika* was an opportunity to apply the theory and principles learned in the lecture.

Internships consisted of 3-4 weeks in the field for students to assist with the harvesting of cotton and many of the respondents were responsible for coordinating and overseeing these internships. In addition, as Liz pointed out, for every internship undertaken the student had to write a course paper which was then graded.

Liz stated that lectures must be taught in both Russian and Uzbek, but accommodating this demand for both languages has been difficult to undertake considering the extra hours needed to translate lectures and texts. For the past 70 years, the official language in Uzbekistan has been Russian. With independence in 1991, there has been a gradual shift in the use of Uzbek language. It has become more dominant in daily use. Newspapers, libraries, museums, and universities are switching texts from Russian to Uzbek. TIAME has begun offering lectures in Uzbek and has started converting their libraries. Translating all the materials to Uzbek has been a daunting task, coupled with the fact that not all faculty speak

Uzbek. This has made finding substitute teachers difficult. To better accommodate this transition, Liz said the strategy was to offer the first and second year classes in both Russian and Uzbek and all the third, fourth and fifth year classes in Russian.

The feeling that teaching occurs inside and outside the classroom existed among many of the interviewees in this study. Sarah considered herself to be a teacher outside the classroom because she felt it was her nature to be so. Lauren stated, 'students will not understand if a teacher only teaches,' noting that she felt compelled to help outside the classroom because she believed advising was important. As for Jennifer, she felt like a mother towards her students, 'if they have a personal problem, they (the student) come to her'.

Furthermore, many women in this study were required to serve as *curator* once a week. This position was advisory in nature and required a faculty member to visit a dormitory floor once a week. The *curator* was assigned students they had in class, so as to build on the student/teacher relationship. These meetings were designed for a faculty member to visit with students in the dorms and to see how they were doing. If a student resided in Tashkent, that meant he/she lived at home. Valerie did not have to serve as a curator, as all her students were from Tashkent.

Another responsibility of the respondents was research. The amount of time spent doing research was considerably less when compared to teaching lectures and labs. For both Beth and Claire 15-20% of their time was spent doing research, whereas Elaine said she spent close to 25% doing research with the remaining left for teaching. Lauren conducted research

in her specialization of agricultural economics. For the past 17 years she had served on the Council for Research and Construction Commission. In Claire's department, faculty members were paired and together worked on various research projects. As for Jacqueline, she helped students prepare their research findings and give paper presentations at scientific conferences.

### **Role among Undergraduates**

The duties and responsibilities as a professor directly related to the role professors have in helping undergraduates. The women in this study taught and advised undergraduates, about the 'diploma works' or thesis required of each undergraduate. They said the main responsibility was to teach, but a majority of the interviewees believed informal teaching via advising and working with students on a one-on-one basis was an integral part of teaching.

Several of the respondents referred to their position as *curators*, as a 'requirement', meaning it was part of her duties. The *curator* position was a requirement of all faculty. Both Beth and Claire viewed the position as an opportunity to interact with students. A majority of the interviewees in this study enjoyed their weekly visit to the dormitory, as a way of getting to know the students better and providing a better education for them. On the other hand, Jacqueline viewed the dormitory duty as a requirement and something she would prefer not to do. Jacqueline believed this required her to enforce the rules and to 'get tough' in the dormitories, especially the 'no fights, no getting drunk' policy. The only students

living in the dormitories were non-residents of Tashkent. Students from Tashkent lived at home and traveled to and from the institute every day.

### **Work Environment**

The interviewees indicated that the work environments within their respective departments was good and positive. The relationships among faculty members was strong, especially in the social aspect of their work. The interviewees viewed their co-workers like family with the work atmosphere being pleasant. The women in this study celebrated birthdays, anniversaries and other celebrations within their respective departments.

### **Responsibilities outside TIIAME**

Domestic duties consume a majority of the respondent's responsibilities outside the institute. Several women pointed out that domestic duties are largely based on tradition and a way of thinking that has been passed down over many generations. Domestic duties consisted of cooking, cleaning, laundry, shopping at the bazaar for food and other necessities, caring for children, and helping their children with homework. Kimberly stated that she spends 60% of her time outside of TIIAME doing housework. Housework takes up a large majority of Kimberly's time with the remaining time spent shopping at the bazaars. According to Karen, women devote a great deal of time to their families. They are mothers by nature and thus felt a great deal of responsibility towards rearing their children.

Jacqueline agreed, stating that women do all the housework, which is a daily task and on-going throughout the week. However, among Uzbeks the domestic responsibilities vary from family to family. Women still continue to do much of, if not all the housework and care for the children, but traditionally girls and daughters-in-law help with many of the domestic chores. Jennifer mentioned that in her family, her son's wife does all the housework. Housework consisted primarily of cleaning. When a son marries, his wife becomes a part of his family. Extended families are common and often dictated by economics and tradition. Being the newest female member of the family, many household duties become her responsibility. These responsibilities are often shared with young females in the family, but the biggest burden often accrues to the new bride.

### **Involvement in Women Groups or Organizations**

While in her early 20s, Karen served on the Government Council for Planning and Forecasting, focusing primarily on women's issues. She worked there from 1958-1967 and helped increase the participation of women in labor markets and in higher education. Karen felt that socialism played a large role in liberating women by offering them access to more education and to have more freedom of choice. In fact, she mentioned that the 1996 Assistant Vice-Prime Minister of Uzbekistan was a woman. Women have made significant strides because more women have sought degrees in higher education which has allowed them more choices. Karen is no longer involved in any women's organization, as she is close to retirement.

On the other hand, Valerie spearheaded the Women's Union at TIIAME. This initiative was put forth by President Karimov and supported by the Rector at TIIAME to bring women's issues to the forefront. This initiative coincided with the Fourth UN World Conference on Women held in Beijing in 1995. The purpose of the Women's Union was to provide a network for women at TIIAME and to assist with summer activities for their children. Attending one meeting, eight members were observed discussing several ideas for summer language camps for their children. Members discussed whether to continue working with Peace Corps volunteers or to start their own program. Membership has been given to any woman interested in joining and meetings have been held twice a month. There were 18 members and 3 of the 14 interviewees were members.

A majority of the interviewees stated they had no time to get involved with a women's organization because of their work and family responsibilities. However, several women mentioned their need to get together with friends periodically, whether informally or in an organized group. Valerie has met once a month with her closest friends from the Chemistry faculty, since her graduation in 1973. For her it is an opportunity to see her friends, as well as share experiences from work and family. Jennifer has been part of the Union of Veterans Choir for 40 years meeting together provided an opportunity for her friends to get together at someone's house, read poetry, listen to Pusknik, play piano, and drink tea. These gatherings are an informal opportunity for Jennifer and her friends to see one another. Two respondents mentioned their involvement with the *machalar*, which is an

integral and important part of the city government throughout Uzbekistan. Involvement in the *machalar* was viewed as an informal opportunity to see and visit with other women.

### **Perceptions of Women Educators**

One of the objectives of the study focused on the perceptions of women agricultural educators toward the agricultural industry in Uzbekistan. Part B of the interview schedule provided insight into the objective.

### **Viability of Agriculture as a Profession for Women**

All but two interviewees indicated that agriculture was a viable industry for women. Ann responded with ‘if a woman is competent, agriculture or any career is possible’. Beth, Jacqueline, and Liz indicated that it was the decision of the individual to enter an agricultural profession. If a woman had a strong enough desire to succeed in this profession (agriculture), then it was possible. Beth added, that she really enjoyed her profession and did not witness any pressure upon entering her profession of machinery usage and had not experienced any since .

Valerie said that the role of women in agriculture was very important and that women can attain success in the agriculture profession. While the Republic of Uzbekistan was under Soviet rule, Valerie had three publications and was very successful during this time period. Whereas Sarah reported that agriculture was viable and women can succeed in this industry, but believed much of the profession was centered around men. Lauren added that she thought



that men were usually found managing farms and that women were best suited for jobs that entail persuading and convincing others to consider an issue, such as health and water quality. She indicated that women can analyze a situation and use compassion in making their point. Furthermore, Claire reported that agriculture was a viable industry, but that the parent's role was important in the career choice of children or young adults. Parents have some influence on their daughters and sons when choosing a career, but as Claire emphasized, parental influence is especially important if the parents come from farming/agricultural backgrounds. This rural upbringing would allow the children, especially the daughter, to have some experience in agricultural production.

On the other hand, both Jennifer and Karen indicated that women were involved in agriculture because society has dictated it economically. As Jennifer stated, it was inevitable that women have entered agriculture, referring to the cotton monoculture that was established in Uzbekistan throughout much of the past century. Karen felt that agriculture was a profession in its own right, but that women need to consider other areas, too. Production agriculture was too difficult for women and that finding alternative areas in agriculture was better.

### **Professions in Agriculture**

To gain a better understanding of the perceptions regarding professions in agriculture, every woman in this study was asked to provide examples of professions they deemed viable for women in the agricultural industry. The most common position identified by the

interviewees included work on *kolkhozes* in capacities such as: bookkeepers, accountants, construction, and chairs or heads of the *kolkhozes*.

Both Kimberly and Sarah indicated these professions were better because they did not require women to work the land. Other common responses included agronomists and researchers both on and off the farm.

Complimentary statements were made by Jennifer, Valerie and Lauren. Both Valerie and Lauren felt food processing and canning were viable professions for women. However, Jennifer claimed that processing factories involved in products such as wine, sugar, and bread were dangerous because of the poisonous gases emitted. Jennifer added that pregnant women and those women nursing young children were extremely susceptible to these gases.

Additionally, several interviewees discussed feminized professions such as: teaching, nursing and being a doctor. Karen believed that becoming a doctor or a kindergarten teacher was very prestigious for women. Sophie believed more women were needed in the medical profession. Both made no mention of agriculture.

As educators themselves, no women from this study mentioned education as a viable profession for women. In fact, Liz stated that education is very difficult for women considering the long hours every day. She considered her job as an educator difficult, but not impossible. Overall, the professions noted among the interviewees were very much linked to production agriculture and feminized professions.

### **Respect in Agricultural Professions**

All but two of the interviewees perceived themselves to be respected and treated with equal respect when compared to men. Elaine indicated that women are respected. If women are professional in their work, they will be respected, although she indicated this may not be the case in production agriculture. Women working in production agriculture may not have the same respect she receives in her work, as a professor. As a Russian, she has never experienced any disrespect from her colleagues, but she feels the opposite may be true for Uzbek women. Considering nationalities, both Ellen and Elaine mentioned that respect may be weaker for Uzbek women and men.

As for Lauren, she was one of the first combine operators in Uzbekistan and earned the 'Hero of Socialist Work' award as a combine operator back in the 1970s and 1980s. She showed her colleagues what women could do in agriculture and had strong feelings that women are respected and treated equally in the profession of agriculture. Karen, also, believed women were equally respected and that the government rewarded women monetarily and praised them in the newspapers and on television. Although this sentiment was similar among many of the women interviewed, not all shared in this belief.

Sophie indicated that women are not respected, especially those that work in production agriculture. She reported that the value of women's labor was of little consequence, despite the long hours many women spend under the sun.

### **Prove Capabilities**

The concept of women having to prove themselves in agricultural professions to a greater extent than men varied among the women in this study. Showing capability on an equal basis or to a greater level than men has been tied to success and achieving it. Several women in the study said that it wasn't necessary to "prove themselves". Claire stated she isn't interested in lots of success. She didn't want to work harder to "prove herself" and didn't see this as necessary for women. Jacqueline had similar thoughts saying that women do not have to "prove themselves" and that if a woman is capable it's immediately apparent to those around her.

Elaine, being single, relied mostly on herself and working harder depends more on family commitments and responsibilities than success. If she had a husband, she would have to provide for him and their children. Elaine saw it as her responsibility to help her husband to succeed and to do that, they must work hard together. Furthermore, Lauren stated that her responsibilities at home were of primary importance. She wanted to work at the institute and spend the remaining time with her family. Therefore, Lauren stated that it was not worth her time to push herself harder. Valerie contended that what was most important for her was to be a good mother and concentrate on her children.

However, Kimberly believed that women have to prove themselves at a higher level when compared to men involved in similar positions. As Table 8 points out Kimberly's opinion reflects the majority of the respondents in this study. She stated that the need to prove oneself in the agriculture profession rested largely on the fact that many women were

**Table 8.** Interview participants' belief that women must work harder to prove themselves (N=14)

	<b>No. of responses</b>
Strongly agree	0
Agree	9
Indifferent	2
Disagree	3
Strongly Disagree	0

employed in production agriculture. Kimberly believed that agriculture is for men and that women should pursue careers in medicine and teaching.

### **Lower Expectations of Success**

Selected questions focused on asking interviewees in this study if women in agricultural professions have lower expectations of success than men. For many, the expectation of achieving success was lower when compared to men and Kimberly compared this to the 'burdens' placed on them. The burdens she referred to were those of family and domestic responsibilities. Several women noted that duties related to the family and household were often their primary concern in comparison to their work at the institute. For Karen, raising her children and her responsibility to the nine or ten children in her extended family attested to her belief that women naturally have lower expectations of success because of these responsibilities at home. According to Sophie, men often have more expectations of success because of their role in society. She added that men are expected to succeed in Uzbek society by being providers for the family and there is often more pressure on them from society to do so.

**Table 9.** Interview participants' belief that success is attainable for women in agricultural professions (N=14)

	<b>No. of responses</b>
Strongly agree	4
Agree	8
Indifferent	1
Disagree	1
Strongly Disagree	0

Furthermore, as Liz stated very few women enter into agriculture because they know it is difficult to achieve success. According to Liz, agriculture is not a “feminized” profession, which makes other professions more appealing than agriculture. She considered education, medicine and the textile industry “feminized” professions and believed that more women were pursuing careers in these fields rather than agriculture. Liz stated that women pursue these career routes largely because it places them close to their families by keeping their working hours to a minimum and emphasizing their domestic responsibilities.

Despite the fact that many interviewees focused on women having lower expectations of success than men in agricultural professions, the interviewees believed that success is attainable for women in agricultural professions. This finding seems to contradict what was previously stated, but not entirely (Table 9). Valerie pointed out that women have a deep responsibility to their families and although juggling both career and family is difficult, but success is attainable.

## **Educational Needs**

Selected questions focused on educational needs of women included in this study.

Each interviewee was asked whether educational settings such as lectures and seminars should provide more information about agricultural professions for women. Secondly, each interviewee was asked what educational needs should be addressed and implemented.

Six respondents were in favor of providing more educational opportunities to share information about agricultural professions, whereas five were against and one had no opinion. Those interviewees against this idea indicated that providing such information was not necessary or that there was enough. For example, Anne stated that meetings or seminars to disseminate information about agricultural professions was not necessary because women have been participating in 'medicine meetings'. These "medicine meetings" were an opportunity for women to learn how to sew, how to give injections, take birth control and other 'things' that are necessary for women. Kimberly indicated that information on agricultural professions was not necessary because there were enough women in agriculture.

However, several women felt that more information was needed to help young women understand agriculture as a profession. Jacqueline stated that there is a direct need to increase the information about careers in agriculture as a way to inform young women about opportunities in agriculture. Secondly, Jennifer mentioned that the government needs to step in and offer workshops at the government level that are permanent and on-going. These would provide information about the profession and inform young women about career opportunities. Furthermore, Karen added that women do indeed play an important role in

society as she is a member of the organization titled 'For a Healthy Generation'. This allows Karen to participate in educational workshops on health for women and children that affect the current generation of women, as well as future generations.

### **Encouragement**

In terms of encouragement, the women in this study were asked the question, should women be encouraged to seek careers in agricultural professions. Over half of the interviewees believed that women should not be encouraged to seek careers in agriculture and for a variety of reasons. Sarah said that young women should not be encouraged to enter this profession because of the hard work involved, referring to the production side. However, if production agriculture was her background while growing up, it seemed only natural for her to pursue a career in this field. Karen agreed partially with what Sarah had mentioned, noting that women who enter into this profession often do not have a choice, rather, their career options are dictated by society. In the rural areas, working in agriculture is a matter of survival with choosing of a profession or furthering ones education not really an option. Finally, as Kimberly stated, there is a relatively low demand for women in agricultural professions. In her opinion, women are not encouraged to seek these careers areas.

According to the interviewees women are both encouraged and not encouraged to seek careers in agricultural professions. However, those opinions did not go unchallenged. Half of the respondents believed that women are encouraged through awards given periodically at the institute and throughout the country. Especially on March 8, International Women's Day,



the institute rewards women through monetary awards, as well as through other certificates throughout the year.

### **Barriers**

Finally, the women in this study were asked if there were any barriers for women seeking careers in agriculture. The respondents mentioned children and domestic responsibilities as barriers for women pursuing careers. When Sarah was working on her dissertation, she was raising her first child. For her it was extremely difficult to handle both jobs. Without her mother's support she probably would have quit. Therefore, she said it was very difficult to pursue a career when there was a family to consider. As for Elaine, it is hard for her to imagine a woman devoting 100% of her time to her work, considering her responsibilities to her family and home. According to Beth, the barriers are not always evident or explainable. She added barriers exist, but are subtle in nature and difficult to explain. Beth mentioned that the Vice-Prime Minister was female, but the number of women in higher government was relatively low.

In addition, Lauren said that women have tangible barriers such as a lack of money, that hold women back. Gaining access to credit has been difficult for her as her husband's support is needed when obtaining credit.

Tables 10 and 11 in many ways summarize the findings from this study. Table 10 indicates a mixed view on the significance of women in agricultural professions.

**Table 10.** Interview participants' response to women's significance in agriculture (N=14)

	No. of Responses
Strongly agree	1
Agree	7
Indifferent	2
Disagree	4
Strongly Disagree	0

Eight of the women agreed or strongly agreed that women play a significant role in agriculture, whereas six disagreed or were indifferent.

Overall, interviewees appeared to support the belief that equality exists between men and women in the agricultural professions. Two of the fourteen respondents were indifferent to this question. Table 11 summarizes their responses.

**Table 11.** Interview participants' belief that equality exists between men and women (N=14)

	No. of responses
Strongly agree	3
Agree	9
Indifferent	2
Disagree	0
Strongly disagree	0

### Conclusions

An analysis of the findings indicate that the majority of women were married with one to three children. The average age of the respondents was 46.7 years and they described their social status as middle-income. The predominant religion among the respondents was Islam.

Eleven of the fourteen interviewees held the Associate Professor rank with the number of years in their respective ranks varying among the women in this study. Their roles and responsibilities were as teachers, advisors (*curator*) and researchers with fields of

specialization largely in the technical sciences. Their responsibilities outside the institute were very much tied to the home, their children and husbands. Their involvement in women's organizations varied. Three were involved in formal organizations such as the Women's Union at TIIAME and several others described their involvement in informal meetings with women friends and colleagues. Several women noted their domestic responsibilities allowed no time for outside organizations.

The interviewees revealed with some hesitation that the agricultural industry was a viable profession for women. Several women believed that pursuing a career in agriculture was a matter of character, determination and desire. However, nearly half of the interviewees believed that women did not hold a significant role in agricultural professions. The women in this study cited male dominance of the agricultural profession, domestic responsibilities, and the desirability of other, more "feminized" professions as reasons for women not pursuing careers in agriculture.

Their examples of professions in agriculture showed a perception that agriculture is very much linked with work on *kolkhozes* and production agriculture. For the most part, women are respected in agricultural professions. However, two interviewees believed that Uzbek women and those women in production agriculture have found it more difficult to earn respect from their male counterparts. The interviewees reported that success in agricultural professions was attainable, but that women had to work harder to achieve it than men. They believed their domestic responsibilities were among their biggest barriers and balancing both

family and career was difficult. Generally, the women in this study believed that women were equal when compared to men.

## CHAPTER V. DISCUSSION

The purpose of this study was to describe the role of women in agriculture as perceived by educators at the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers in Tashkent, Uzbekistan. The study focused on implications of the data to agricultural and extension education. Specific objectives of this study are to (1) identify specific roles and responsibilities of women agricultural educators at this institute (2) identify perceptions regarding the role of women in agricultural professions; (3) develop a demographic profile of women agricultural educators.

This chapter is organized and presented under the following sub-headings:

- 1) demographic characteristics of the respondents;
- 2) roles and responsibilities of the respondents and ;
- 3) perceptions regarding the role of women in agricultural professions.

Overall, the respondents in this study indicated that the agricultural industry was viable in varying degrees and that success was attainable in agricultural careers. To achieve success carried the double burden of balancing career and family, noting that domestic responsibilities many times limited what they could and could not do.

### **Demographic Characteristics of the Interviewees**

An analysis of the data revealed the respondents to be approximately 46.7 years of age, married and Muslim. Their ages ranged from 33 to 58 years. There were four women that were 40 and younger and six were 50 and older. Retirement for women is 55 years of age

in Uzbekistan and six of the women in this study will retire in 5 years with several interviewees to follow shortly thereafter. This information reveals the length of time needed to establish themselves professionally coincided with other university professors in higher education.

A variety of backgrounds were represented by the fourteen interviewees. All pursued degrees in higher education in various technical fields and most attained the level of *Docent*. The women in this study consist of the 39% of those in higher education in Uzbekistan (UN, 1995). However, distribution among the various economic sectors indicates that enrollment in agriculture, as a whole, is considerably lower. Therefore the women in this study are among a select few within higher education in agriculture in Uzbekistan.

Common to all interviewees were their roles as either mothers and/or wives. All the interviewees, but two were married with everyone having at least one child. The number of children among the interviewees in this study match the education-fertility theory noted by many WID scholars. This theory states the more education that is acquired, the fewer children a woman will have (Boserup, 1970, Tinker, 1991, UNESCO, 1993). The findings from this study contradict what has been documented throughout Uzbekistan. Educational levels for women in Uzbekistan are similar to those in many industrialized countries, yet birth rates have skyrocketed since 1985 (Griffen, 1995). This contradiction can be explained by the fact that 61% of Uzbek women live in rural areas. Rural Uzbeks are predominately patrilineal, with which marriages being patrilocal, meaning they the bride became a member of

her husband's family immediately following the wedding. The women in this study were not from rural areas, but resided in Tashkent, the capital city.

Of the 14 respondents, 11 were Muslim, only two of which were self-described strong believers. The remaining consisted of two atheists and one Russian Orthodox. These results may be the result of the communist ideology that dominated Uzbek life since the early 1920s, where strong stances were taken to rid Central Asia of Islam. As Claire pointed out, the communist influence affected many lives. *Khudjum* (literally meaning assault) was a common word used during the late 1920s to accomplish the atheist campaigns set out by Soviets (Griffen, 1995). Communist leaders attacked women, in particular because women were the ultimate transmitters of information to children. This was especially true in regards to Islam and its traditions (Bridger, 1987). This may explain why Liz still feels compelled not to wear her veil at the institute and why only two of the eleven Muslim women considered themselves strong believers.

The information garnered from this study did elicit a relationship between their belief in Muslim and the societal changes that have affected their lives during the last 70 years. What is written in the Quaran states that women are equal, but what Muslim society in Uzbekistan has handed down over the years describes a different scenario. A scenario in which women are subservient and thus have had a distinct role in society (Bridger, 1987). The majority of the women in this study were Muslim, but did not seem to practice in any great depth. These women expressed a sense of equality in their professional lives and yet,

inequalities remained in the domestic sphere, as much of their domestic responsibilities remained invisible.

In describing their social status, the majority of the interviewees categorized their social status, based on their monthly income, as in the middle range. Providing no set boundaries for these categories gave way to different perceptions as to what each level of the social status represented. Due to the Sovietization of Uzbekistan, the status of women did increase. This increase supports the socialist transformation that brought equality (in theory) between the sexes and women's increased economic role (Momsen, 1991). However, increasing their economic role has, in turn, doubled their responsibilities within their careers and their families.

The honorary and academic awards received by the interviewees varied depending on their discipline. The most common award was the *Grampta* and was given on special occasions, as well as for excellence in research, teaching, and advising. The *Grampta* supported the communist belief that praise and rewards would make an employee content and happy. As one of the respondents noted, in her career thus far she had received close to 100 *Gramptas*. This information may support the idea that Sovietization did not impact Uzbekistan like it had envisioned, creating a non-religious society, but rather a parallel system which honored those who integrated (UN, 1995).

The teaching load of each respondent ranged from 4 to 15 classes per week and the number of students they taught ranged from 16 to 270 students. Interestingly, the higher the



rank of the individual fewer classes and students. This hierarchy among professors is similar in many ways to university systems in the United States.

The combined responsibility of lecture and *pratika* made for long days for both students and educators. Based on the literature, one would be led to believe their educational system supported a liberal philosophy of adult education which emphasizes content mastery with the educator as the expert (Galbraith, 1990). This philosophy was in fact true when observing both lectures and *pratika*. The educational process was traditional with the educator lecturing and students diligently taking notes. It is important to credit the *pratika*, as it provided an opportunity for the student to apply what was learned in the lectures. However, the *pratika* modeled in many ways the lecture, being traditional in the delivery of information. The delivery of information was often presented with the professor as expert and student then replicated, hands-on, the assignment for that particular day. The level of cognition is mostly at the remembering or processing stages. For example, the problem-solving approach to teaching would possibly allow for more interaction and higher levels of cognition among the students.

The level of education when compared to gender gaps in education were relatively low in Uzbekistan when compared to countries with similar economic conditions. Uzbekistan should be recognized for its relatively low gender gaps in education. University enrollment for females as a percentage of the male population was 78.3 and enrollment for those in natural and applied sciences was 78.5 (UN, 1995). However, the number of students that were female ranged from 5-20% in each class taught by the interviewees. In the technical

sciences, female students have been relatively few in numbers. The current economic situation in Uzbekistan begs the question of whether the country will encourage more females to enter these non-traditional disciplines as the demand for skills beyond the “feminized” professions grows. With the change to a market-driven economy coupled with the ever-pressing environmental and agricultural needs, it is important for Uzbekistan to recognize this untapped resource.

Finally, the respondents stated how many women educators they knew. At TIIAME with only 80 women were in professorial positions, the networks established between these women are important. The respondents personally knew as few as 3 women educators and as many 50. These numbers can be explained based on the number of years at TIIAME. For example, Sophie had been a faculty member for only one year at the time of the interview and knew only three women, whereas Kimberly had been on staff for 10 years and knew twenty. As a minority, at TIIAME these personal contacts, whether close or not, provided a network, a common thread in an institute heavily dominated by men.

### **Roles and Responsibilities**

Analysis of the findings indicated that the majority of the respondents were *Docents*. Two were Assistant Professors and relatively new to TIIAME, whereas only one had acquired Full Professor status. This data may be interpreted in several ways. One possible explanation would be the time and commitment needed to pursue the Full Professor status. To do so, one had to write a dissertation equal in nature to the one awarded for the Doctor of

Philosophy. Also, 10 women in this study had children under the age of 20. Knowing their commitment to the family, especially children, this may help explain the ranks obtained by the interviewees. As Bridger (1987) states, women's promotions in any part of society largely hinges on their domestic responsibilities.

The areas of specialization show a wide variety of disciplines and gives hope to the younger generation of women pursuing degrees at TIAME. These women professors will serve as role models for young women pursuing careers in related fields and offer support and encouragement in a field that is male-oriented.

The subjects taught were one component of their teaching responsibilities. Internships out in the field and in many cases the cotton harvest were the responsibility of the interviewees. Whether in economics or in management, students were required to participate in the cotton harvest during late September through October. This was mandated many years ago by the Soviet government to assure the cotton was picked in a timely manner. Hand-picking cotton was more desirable than using combines. Therefore, the government required students to participate in the cotton harvest despite their area of study. Many of the women in this study had to oversee this work which required both students and faculty to leave the institute for approximately 3-4 weeks every fall.

Marxist theory explains why this requirement was enacted for university students throughout Uzbekistan. The belief that everyone's participation would benefit the country as a whole has been the driving force for this practice to continue. Despite the fact that independence occurred in 1991, students and teachers alike, have had to continue

participating in the cotton harvest. The medical and law schools have discontinued sending students to the fields, whereas TIAME and the National Agrarian University in Tashkent still require students to participate.

Should this top-down approach for the agricultural sector continue, where students and teachers, alike, spend time harvesting for the good of the country? In theory, the beneficiaries of this practice are the people of Uzbekistan, but in practice the government reaps the benefits. Granted the students learn discipline, teamwork, and a host of technical skills, but an internship addressing the needs of the students and teachers should be considered.

In addition, to the lectures and *pratika* responsibilities, the women in this study served as *curators*. Both women *and men* professors at TIAME were required to serve in this capacity. The *curator* was a concept of formal advising outside the institute which affirmed a commitment to students; to assure they were doing well both socially, as well as academically. The women in this study conveyed and facilitated technical information in the classroom and then provided advising both formally and informally outside the classroom. Both are viewed by Galbraith as foundation skills for adult educators (1990). It is the technical proficiency coupled with interpersonal skills that make these women role models for future generations.

The *curator* position is consistent with the strong focus on families, which is very common throughout Uzbekistan. The family unit in Uzbekistan is often one that has several generations living under the same roof. Having a faculty member, assuming the role of parent,

to visit the dormitories supported the strong family ties evident throughout Uzbekistan. Several women in this study expressed that the *curator* position was an extension of their role as mothers from their home to work and truly enjoyed doing this. Whereas those women that expressed the *curator* position as a requirement or duty of their work may be overwhelmed with dual responsibilities of career and family, feeling conflict over spending time with family or the students.

Four women from this study conducted research. These findings lead to two different ideas. As the literature states, teaching is one of several feminized professions (Bridger, 1987 and Griffen, 1995). Therefore, women may have been left out of the practice of conducting research, with the perceived belief that a women's strength is in teaching. Secondly, as Jennifer pointed out, her dissertation research on pesticide management has gained acceptance throughout much of Uzbekistan. These are encouraging words knowing her research was disseminated to many out in the field, but skepticism surfaces as to who actually received this information. In discussions with an extensionist at the Ministry of Agriculture in Tashkent, it seems the dissemination process is weak considering it is common practice to target only the best farms for seminars and workshops. According to Besteman (1995:58), more often than not women are left out of the extension process either by design or by default as a result of traditional beliefs of farmers, male extension agents, and development planners.

Much of the research done in Uzbekistan has been conducted through the Ministry of Agriculture, located in Tashkent. Extension, administered through the Ministry of

Agriculture, plays an important role in linking research with those in need. To incorporate a gender perspective into relevant studies and disseminating that information to all, especially women who make up 61% of the rural population, will be important for the development process.

The role these women had with undergraduates complemented their responsibilities as faculty members at TIIAME. The majority of their duties focused on undergraduates in terms of teaching. Spending individual time with each student was a given for the women in this study. Both formal advising and informal were conducted. As Jennifer pointed out, she felt like a mother to all her students. Helping them get through school and to succeed was her aim. It is evident that for several of the respondents their role as mother spilled over into the classroom.

The roles the women in this study achieved varied among the interviewees. Only one of the 14 held an administrative position. This is consistent with one of three reasons stated by Acker (1994) regarding why women are frequently barred from administrative positions: conflicting demands of family and career, minority status of staffs, and male domination of knowledge. In this case the demands of family and career are very apparent from the interviewees' comments. Many women see the balancing act between career and family as something they must cope with (1994:126). Over and over again, the women in this study made reference to their domestic responsibilities.

Many of the duties outside the institute centered heavily around the home. Caring for children, cleaning, cooking, shopping and gardening in some cases. None of the women

mentioned their spouse in helping or assisting with these domestic chores. According to Bridger (1987), spouses with more education seem to share *more* of the domestic chores.

Furthermore, the comments shared by Jennifer shed light on bridal suicide, one of the biggest problems the women of Uzbekistan have faced in the last decade. Jennifer stated that in her family, her son's wife does all of the housework. Marriages in Uzbekistan are often patrilocal, meaning the brides come to live at the husband's father's home. There is considerable pressure to become a dutiful wife by cooking, cleaning, and caring for any young children, including their own. Thus young brides have the lowest status among the family. They are also expected to bear sons and carry on the male line. This status coupled with the domestic chores places so much pressure on an individual, often young, that they commit suicide by setting themselves on fire.

This problem was very prevalent throughout the 1980s, with as many as 1500 reported suicides in 1985. The comments made by Jennifer bring light to a serious problem that has affected many women throughout Uzbekistan. As women take on new responsibilities, especially young professionals balancing both career and family, it will be important to constantly monitor this situation through government and local intervention, so as to not repeat the mistakes of the past.

The interviewees' involvement in women organizations was limited. Since 1991, women organizations have sprung up throughout Tashkent and Uzbekistan. As Davis et al (1994:20) stated, it is essential for women to establish and build networks that will enhance promotion and provide guidance, support and advocacy for the long-term. The organizations

noted by the women in this study were the Women's Union at TIIAME and the women's committees serving under the local government's *machalar*. The researcher attended one meeting of the Women's Union at TIIAME and was impressed with their commitment and dedication to this union. Despite this sense of commitment, there was an overwhelming feeling that initiatives were handed down by the *Rector* or President of TIIAME and were not grassroots led initiatives. The top-down approach often gets things started, but have the real needs of members been met or addressed? From the meeting the researcher attended, the summer language course for union member's children was an important agenda item. The purpose of the Union addresses their traditional roles as mothers; arranging and coordinating activities for their children. These are important because the demands on these women as mothers and caretakers are great, but issues such as professional development are needed as well. Their roles are double in nature: family and career, and hopefully the union will address the latter in the future.

### **Perceptions of women educators**

Professional employment for women in Uzbekistan varies considerably. The women in this study indicated that the agricultural industry in Uzbekistan was generally viable for women. Three women believed that obtaining employment in the agricultural sector depended greatly on competence, knowledge of the chosen area, and a desire to learn. The remaining respondents believed agricultural careers were viable under certain conditions.



The conditions mentioned included type of work and parental influence. Lauren mentioned that men are found more in managerial positions on *kolkhozes* than women and also, that women are better suited for work in the health professions. These comments support the fact that the proportion of women in higher levels of management in Uzbekistan is only 17.5 per cent, showing that the number of men far outweigh the number of women. Women are by far more visible in the health professions with nearly 76.9 per cent women (Griffen, 1995).

The women in this study generally indicated that agriculture was viable for women and yet the statistics suggest otherwise. The discrepancy may be caused by how agriculture was defined by these women and what they perceived as viable professions. Both Jennifer and Karen felt that women will inevitably enter the agricultural sector because government has placed such a heavy emphasis on cotton production. As Karen added women need to consider alternative employment areas in agriculture rather than production agriculture. Women dominated the production side of agriculture throughout the former Soviet Union as noted by Bridger (1987).

Building on Karen's words, it is important to consider alternative areas because production agriculture is just one segment of the entire industry. However, as Momsen (1991:67) pointed out, most employment statistics collect data based on economic sectors and not job location and thus researchers and the general public are led to believe that only non-agricultural employment exists in urban areas. Women provide a major portion of the work carried out in the informal sector, selling fruits, vegetables and a variety of other foods

and this was clearly evident in the bazaars dotting Tashkent. Furthermore, female professors, research assistants and lab technicians are evident at both agricultural universities in Tashkent. Both employment alternatives to production agriculture does not necessarily support the female marginalization theory in areas of capitalist industrialization. As educators the interviewees have entered a feminized, but what clearly outweighs this idea is the fact these women have broken through the 'glass ceiling' and have garnered university appointments unknown to few women in Uzbekistan.

The women in this study perceived agriculture in the traditional sense. Throughout Uzbekistan, a majority of women have been employed in underpaid, jobs requiring little education. When asked about professions viable for women in agriculture, the overwhelming responses were in production agriculture, factory work or in noted 'feminized' professions such as teaching, nursing, and medicine.

As for production agriculture, the professions mentioned included: bookkeeping, accounting, construction, and managers on *kolkhozes*. The key word in this statement is *kolkhozes*, meaning the perception of agriculture is still very much tied to the land. Agriculture in Uzbekistan is very much tied to the land, but as the economy grows more opportunities should arise for women to pursue careers in agriculture. However, according to the Griffen (1995) employment in agriculture grew at a rate of 4.6 per cent, up from previous years and agricultural output declined 3.8 per cent. Therefore, the agricultural industry currently is unable to meet the employment demand for both women and men.

The current privatization of farming throughout Uzbekistan could seriously impact women. With fewer jobs available throughout the agricultural industry and increases in individual farming (Griffen, 1995), the future of women in agriculture could revert to taxing their current duties even more. According Griffen (1995), household production which includes selling crafts and garden produce has risen from 10 to 12 per cent from 1991 to 1992. This increase in household production could lead to a third area of responsibility.

Furthermore, Valerie felt factory work which included food processing and canning were viable professions. What Valerie stated holds true as many women are employed in this capacity. However, two points argue against what Valerie stated. First, contradictory to Valerie's statement is what Jennifer claimed. There are many dangers associated with food processing conducted in Uzbekistan. Deadly gases are emitted in wine, sugar, and bread production and without the proper protection the ramifications are severe. Secondly, traditional forms of expertise such as food processing, canning, and sewing can be taken out of the factory and into the home, as witnessed by the researcher last summer. Individual or small business ventures have started and can be seen in the open markets throughout Tashkent and Samarkand, but these small-scale ventures have difficulty in getting started due to obtaining credit, purchasing raw materials, and marketing their output (Griffen, 1995).

Also, three professions completely unrelated to agriculture were mentioned as viable to the agricultural industry: kindergarten teaching, nursing and doctors. Karen mentioned how 'prestigious' a kindergarten teacher was. These comments may indicate an unawareness

of the different professions available for women in agriculture and that their perception of agriculture is equivalent to production agriculture.

These findings on viability conflict with the findings in a study conducted in the U.S. by Annette Kiefer (1994) on the perceptions regarding the status of women in selected careers in agriculture. According to Kiefer (1994), the agriculture industry was seen as a viable career area and that the status of women in agricultural careers tended to be neutral to positive. The disparities with Uzbek and U.S. agriculture coupled with cultural, economic, and political differences make comparing the findings from both studies difficult. Yet, the bottom line indicates Uzbek women hesitate to call the agricultural industry viable for women and their status seems to lean towards the production end of agriculture.

Respect is a universal issue and that was the message conveyed by the women in this study. They believed they were respected in their profession but on a conditional basis. If they were professional, if they were competent, if they had knowledge of their field, they were respected. What happened to respect for the individual, despite these conditional statements? It seemed these women molded themselves around a model of what was expected of them as women. It is the researcher's contention that women in the US struggle with this same issue. Individuality is important and was noted by several of the interviewees. All of these women were unique in their own respect, and yet seemed to believe that respect meant equality among the sexes.

The question about women proving their capabilities to a greater extent than men was derived from a study conducted in the US and adds a more competitive nature to the

question. At the time of this study Uzbekistan was no longer under socialism and was transforming into a more market-driven, capitalistic country. Remnants of the old system still exist, as was noted in several of the women's responses. Under socialism there was no need for competition and so several responses can be interpreted from this vantage point because several of the women in this study felt it wasn't necessary to prove themselves, thus supporting this idea.

However, many women believed that proving themselves to men or anyone for that matter, was dependent on their family. Again their responsibilities as mother and wife were very apparent, as Valerie made clear, her most important responsibility was for her to be a good mother and to concentrate on her children. As for Kimberly, her adamant nature was considerably stronger towards proving oneself in an agricultural profession, especially production agriculture. She felt that it was necessary to prove oneself as competent for the job.

Kimberly's determination was mirrored by all the women in study. Not only must women prove themselves at the workplace, but women provide gender balance because women are needed in agriculture, just as in any profession. Gender balance is important as both women and men complement one another in the workplace (INSTRAW, 1996).

When asked the question regarding women having lower expectations of success in agricultural professions when compared to men many of the interviewees said yes. Their responses collectively drew on the 'burdens', referred to by Kimberly, as family and domestic responsibilities. Women's expectations were often lower because they felt a need

to take care of their family and husband. These expectations were a common theme throughout the study. The interviewees responsibility toward their families was great and may limit and/or slow achievements in their professional careers. It is apparent that several of the women in this study felt hindered by their responsibilities at home.

As educators, the responses were mixed regarding the need to provide additional information about agricultural professions. Several women felt more information was needed, whereas some felt the institute (TIAME) and other universities already offered enough. As Anne pointed out women have been participating in ‘medicine meetings’ for many years. These “medicine meetings” allow women to enhance or gain skills in sewing clothes and administering first aid. Again these comments reinforce the women in this study’s role as mother and caretaker. These skills are important to learn, but why aren’t men sitting beside these women learning similar skills? If men attained these same skills, domestic responsibilities could be shared, but tradition is a significant factor in the roles women have assumed in Uzbekistan.

In addition, Karen stated that 30-40% of Uzbek women are involved with the organization called “For a Healthy Generation”. This non-governmental organization pursues issues related to children, family planning and education (Griffen, 1995). It serves as a network and support service to women throughout Uzbekistan, as leaders of this organization extend their outreach services. This type of opportunity offers hope as the women of Uzbekistan deal with the transition to a market economy.

In addition, several interviewees indicated that young women entering into the agricultural professions needed more information. Jacqueline noted that young women need to be made aware of the opportunities in agriculture. Students are consumers of an university education and ultimately want a degree that will earn them a job. Agriculture does not only encompass production agriculture, but a host of other areas. Workshops or seminars on the different career options would help broaden the view of agriculture as defined by many of the women in this study.

Likewise the responses to the next question were mixed. Half of the interviewees believed that women were encouraged through awards given throughout the year. Especially mentioned were the awards given on March 8th, International Women's Day. These awards may be interpreted that women and men were rewarded as a socialist ploy to keep people happy (Bridger, 1987). However, Uzbekistan should be complimented as they have recognized this important day and the accomplishments of women throughout Uzbekistan, unlike many universities and businesses in the U.S.

On the other hand, the interviewees indicated that young women should not be encouraged to enter this profession because of the laborious work involved. This response is a clear reference to production agriculture, both in the fields and in food processing. As Sarah stated, women are not encouraged, but rather have been forced into production agriculture because of the needs of the agricultural sector. Women's participation in production agriculture is clearly documented throughout the increase in cotton production earlier this century (Bridger, 1987, Griffen, 1995). Under the conditions noted throughout Bridger

(1987), women *and men* should not be encouraged to work in agricultural practices witnessed in Uzbekistan. The environmental disaster that threatens much of rural Uzbekistan has had serious ramifications on the water and food supplies and health of its citizens. With women consisting of 61% of the rural population, measures need to be taken to insure their the working conditions are safe and for the children they bear.

Who will encourage them, when the majority of the professors at TIIAME are male? Women in this profession are the best role models for future generations of women, but reaching out to all takes a concerted and organized effort by everyone in higher education.

As adult educators, the women from this study take on two new roles. New economic, political and social structures will emerge with the breakdown of the centrally-controlled government. Women will be agents of change as they become learners, by building on the old system that teaching is not only lecturing. By educating themselves on the new educational system that is taking shape and by seeking professional development to further their knowledge, these women will make an impact on the next generation. It is the women from this study that can be the impetus for encouraging the next generation of young women into the field of agriculture by providing alternatives to production agriculture, as history has proven its negative impacts on women.

Secondly, as educators they will have the abilities to help shape the lives of the next generation of women entering agricultural disciplines. The women in this study were also early adult learners and formulating and shaping their thoughts will be largely based on the role of their educators.



Finally, the barriers noted by the women in this study coincide with much of what these women have expressed thus far. Their commitment to their families and domestic responsibilities was unwavering. Having a career gave them a set number of hours each day they were away from their home and their families. Under socialism, child care was provided, but as independence takes hold, many of the benefits reaped under socialism will probably disappear (Griffen, 1995). It is noteworthy to add, that women in cities, like Tashkent, have a distinct separation between home and work, which limits networks of families and relatives (Momsen, 1991:76). This has led to many women joining women support groups so as to share domestic responsibilities. Overcoming many of these barriers may be difficult in the future, as Uzbekistan struggles to overcome economic, political, and cultural hurdles.

The women in this study gave the impression that women had a significant role in agricultural professions throughout Uzbekistan. However, much of this role had to do with production agriculture. This finding supports much of what the literature states, that women are an integral and important aspect to the agricultural economy, although much of this effort is in producing food (Boserup, 1970; Tinker 1990). Finally, the interviewees strongly believed that women in agricultural professions were equal to their male counterparts. This equality is more in theory than in practice. Equality under Marxism was derived more for its economic purposes and differs greatly from the definition derived elsewhere.

## CHAPTER VI. SUMMARY, CONCLUSIONS & RECOMMENDATIONS

This chapter will present a summary of the study, its major findings, conclusions, recommendations based on the findings, with implications to Agricultural and Extension Education.

### Summary

Economic, political and cultural changes have swept the Uzbekistan in the last century. The prosperity witnessed during the Silk Road era vanished. What was left was a republic struggling with environmental effects from intensive agriculture that now threatens the water quality, food supply, and health of the citizens of Uzbekistan.

The agricultural 'emancipation' that evolved throughout Uzbekistan had a dramatic effect on women. This 'emancipation' witnessed over the past century has increased their role in the labor force, but in turn emphasized their domestic responsibilities. More women became visible on state farms or *kolkhozes* and in the overall production of cotton. However, what remained invisible to many were women's domestic duties. The policies of agrarian development implemented throughout Uzbekistan promoted inequalities as more women were seen working the land. These women were most vulnerable to the environmental disaster that now plagues much of rural Uzbekistan.

The status of Uzbek women has advanced, but inequalities still exist. The women of Uzbekistan still do not have equal access to credit, education, and employment. In agriculture, women dominated production agriculture for many years, but with increases in

technology and mechanization women were (and still are) marginalized into the informal sector, as well as other areas.

Women in development advocates have been pushing for nearly 30 years to make visible the invisible work of many women in developing countries. There is a need to look at the development process through a gendered lens. The women in Uzbekistan share many of the same struggle with women around the world. This study should add to the information on women in development by providing insight into a geographical area unknown to many. Agriculture is the context for much of the research conducted on women in development. Understanding the role of women in agriculture in Uzbekistan will aid in developing policies and programs at the national, regional and local levels throughout Uzbekistan. Addressing the needs of women in agriculture will impact future generations of agriculturists, as we strive to educate with a gender perspective in mind.

### **Purpose**

The purpose of this study was to describe the role of women educators at The Institute of Irrigation & Agricultural Mechanization Engineers (TIAME) in Tashkent, Uzbekistan and to determine the implications for agricultural and extension education. Specific objectives were to 1) identify roles and responsibilities of female agricultural educators at the institute; 2) identify perceptions regarding the role of women in agricultural professions and; 3) develop a demographic profile of female agricultural educators.

### **Procedures**

The research design used in this study was qualitative. Three qualitative research techniques were used to accomplish the objectives of this study: historical research, in-depth interviews and observations. A brief review of the history of women in Uzbekistan from the early 1900's was conducted. Fourteen interviews were conducted during the summer of 1996 in Tashkent, Uzbekistan at The Institute of Irrigation & Agricultural Mechanization Engineers. A set of questions was developed for an interview schedule and interviews were conducted over a two month period. A purposive sampling method was used due to the uncertainty of the conditions in Uzbekistan. Observations of women in a variety of different settings were made throughout the researcher's visit to Uzbekistan.

Findings were analyzed using Ethnograph 4.0, a qualitative computer program. The fourteen interviewed were typed as individual interviews, but analyzed on a per question basis. The data was coded and analyzed based on complementary phrases, as well as differences.

### **Findings**

An analysis of the findings indicate that the majority of women were married with one to three children. The average age of the respondents was 46.7 years and they described their social status as middle-income. The predominant religion among the respondents was Islam.

Eleven of the fourteen interviewees held the Associate Professor rank with the number of years in their respective ranks varying among the women in this study . Their roles and responsibilities were as teachers, advisors (*curator*) and researchers with fields of

specialization largely in the technical agricultural sciences. Their responsibilities outside the institute were very much tied to the home, their children and husbands. Their involvement in women organizations varied. Three women were involved in formal organizations such as the Women's Union at TIAME and several others described their involvement in informal meetings with women friends and colleagues. Several women noted their domestic responsibilities allowed no time for outside organizations.

The interviewees revealed with some hesitation that the agricultural industry was a viable profession for women. Several women believed that pursuing a career in agriculture was a matter of character, determination and desire. However, nearly half of the interviewees believed that women did not hold a significant role in agricultural professions. The women in this study cited male dominance of the agricultural profession, domestic responsibilities, and the desirability of other, more "feminized" professions as reasons for women not pursuing careers in agriculture.

Their examples of professions in agriculture showed a perception that agriculture is very much linked with work on *kolkhozes* and production agriculture. For the most part, women are respected in agricultural professions. However, two interviewees believed that Uzbek women and those women in production agriculture have found it more difficult to earn respect from their male counterparts. The interviews reported success in agricultural professions was attainable, but that women had to work harder to achieve it than men. They believed their domestic responsibilities were among their biggest barriers and balancing both

family and career was difficult. Overall, the women from this study believed that women were equal in their capabilities pertaining to work in agriculture.

### **Conclusions and Recommendations**

1. The results of this study indicate the interviewees balance the responsibilities of both career and family. It is recommended that traditional roles in the household be looked at and that alternative methods of supporting women in both roles are addressed. Educational workshops, seminars and informational meetings need to be held for both women *and men* that can address traditional roles, stereotypes and gender differences.
2. The study found three women involved in formal women's organizations and several involved in informal gatherings. Whether informal or formal, these meetings are apparently supportive atmospheres for women. It is recommended that involvement in these types of 'networks' increase through recruitment and encouragement by women currently involved, university and institute administrators, and public officials.
3. The findings from this study indicate that women's perceptions regarding agriculture lean largely towards production agriculture and the *kolkhozes* that still exist throughout much of Uzbekistan and yet, women are involved in a variety of careers. It is recommended that a broader view of agriculture be considered. Agriculture encompasses a wide variety of individual industries. Workshops or seminars on the different career options would help broaden the view of agriculture as defined by many of the women in this study. This

dissemination process could be conducted through agricultural educators and printed material distributed throughout universities, institutes, and secondary schools in Uzbekistan.

4. This study indicated that on the continuum of success, a career in agriculture was viewed as being somewhat neutral for women. Therefore, educational programs should be developed to increase awareness of gender roles in agriculture in primary, secondary, and institutions of higher learning. To achieve a gender perspective in agriculture and to encourage more women to be involved in professions, it is recommended that men and women be actively involved in establishing policy for agricultural development at the local, regional and national levels.

5. The perceptions of the interviewees led to a belief that women play a significant role in agriculture. This finding coupled with the fact that many women are employed in the agricultural industry, and that many reside in rural areas indicates a need to address the role of extension in Uzbekistan and to assure that a gender perspective is incorporated into workshops, seminars and research and that women are not overlooked in the dissemination of information.

6. Despite the women's belief that agriculture was generally a viable industry and that success was attainable, professions in medicine and teaching were frequently mentioned. It is recommended that the role of women of in the workplace be addressed via a gendered lens. There is strength in gender diversity and therefore, it is important to have women employed in both agriculture and those 'feminized' professions. Promoting agriculture as a viable career choice will be key in accomplishing this recommendation.

### **Recommendations for Further Research**

1. The study was limited to fourteen women at the Tashkent Institute of Irrigation and Agricultural Mechanization Engineers. Studies of women at this institute and others throughout Uzbekistan are recommended to compare and contrast this system with others.
2. This study was qualitative in nature. Incorporating a quantitative perspective may provide further insight for all women agriculturists in Uzbekistan.
3. This study looked at the perceptions of women in agriculture in Uzbekistan. The findings indicated perceptions of women in agriculture were largely on the production end of agriculture. It is recommended that a study address women working in production agriculture in Uzbekistan.
4. A comparison study, comparing Uzbekistan's perspectives on women in agriculture and those of other developing countries and those of the West would allow one to better compare and contrast the systems.

### **Significance and Implications to Education**

This study serves as a point of inquiry and opportunity to further study for both faculty and students in the department of Agricultural Education and Studies (AGEDS) at Iowa State University. This period of transition for Uzbekistan could provide insight into the area of adult education as Uzbek women grasp hold of new ideas and make decisions about their future and those of their students.



As agricultural educators, this study can serve as a point of reference for women's issues around the world. The information from this study can be incorporated into the curricula in the Agricultural Education & Studies department at Iowa State University. Incorporating a gender perspective into such classes as administration, curriculum, leadership, and teaching methods would be invaluable to both undergraduates and graduate students in AGEDS. Disseminating the information in this manner would ensure that gender issues were addressed across the curricula.

Furthermore, this study adds to the breadth of research conducted in AGEDS and in agricultural education across the nation. With only 14 women at the professorial level in agricultural education in the United States and only one in AGEDS at Iowa State University, there is little doubt that educating the majority (white male) on gender issues is a must. Failing to recognize gender issues may marginalize young women at the secondary level, university and those attaining university posts. Young women who have not adjusted to the male-oriented atmosphere may struggle or eventually leave the profession because 1) the only mentor/advisor available was male and; 2) that individual was not gender-sensitive. Therefore, providing workshops and seminars on gender issues becomes increasingly important as more women enter agriculture at secondary and post-secondary institutions.

Sharing these educators' perceptions on women in agriculture provides valuable information for agricultural development in Uzbekistan. Educators should promote the idea that students, whether at the secondary or university level, be cognizant of women's issues. Agricultural and extension education has an important opportunity to inspire and assist

women to become leaders for agricultural development through extension activities and programs at the local level. Well-educated women can become strong models and advocates for education for other women as they gain further access to the agriculture industry at all levels not just at the level of production.

As educators it is necessary to help students to be cognizant of women's issues. Both female and male students need to be aware of the subtle or overt discrimination and the various inequalities that still exist, namely because of our socialization during the child-rearing years. Research on this issue and its importance has been forthcoming since the early part of this decade, but it is disturbing that the 30 year struggle to include women in all aspects of society is still ongoing as we near the 21st century.

**APPENDIX A. HUMAN SUBJECTS REVIEW  
COMMITTEE APPROVAL FORM**



**APPENDIX B: INTERVIEW SCHEDULE**

### **Statement to be Read to Participants Prior to Interviews**

The role women play in our society is gaining strength throughout the world. The impact they have on other women is an important aspect of understanding their role in society. Several studies have focused on the role of women agricultural educators in university settings, but few have added an international dimension to this area. This area of research is relatively unexplored and the views and attitudes towards the role of women in agricultural education will be very important in understanding women in an international setting.

This interview will be approximately one hour in length. Your participation in this interview is completely voluntary. Your non-participation will not affect the evaluation of the subject. You may stop your participation in this interview at any time. The information you provide will be strictly confidential and your anonymity will be protected. While the interview will be tape-recorded, the tapes will be erased following analysis. Do I have your permission to include you in this survey?

### **Interview Questions**

#### **A. Identify specific roles and responsibilities of female faculty members**

1. What is your academic rank?
2. How many years have you been in this academic rank?
3. What specific subject(s) do you teach?
4. What are your duties and responsibilities as a professor at this institute?
5. What role do you play among undergraduates?
6. What role do you play among faculty and staff?
7. What are your administrative responsibilities within your department, college and institute?
8. What are your responsibilities outside the university?
9. Are you involved in any women's groups or organizations? Describe.

**B. Identify perceptions regarding the role of women in agricultural professions.**

1. Do you believe the agricultural industry in Uzbekistan is seen as a viable profession for women? Please explain.
2. Please give 3 examples of professions that you would deem viable for women in the agricultural industry.
3. Do you believe women are respected in agricultural professions?
4. Do you feel men and women are treated with equal respect in agricultural professions?
5. Do you feel women have to prove their capabilities in agricultural professions to a greater extent than men?
6. Do you believe women in agricultural professions have lower expectations of success than men?

To what degree do you agree or disagree with the following statements.

8. Women play a significant role in agricultural professions in Uzbekistan.

_____ Strongly Agree	_____ Disagree
_____ Agree	_____ Strongly Disagree
_____ Indifferent	

9. Women have to work harder to prove themselves in agricultural professions.

_____ Strongly Agree	_____ Disagree
_____ Agree	_____ Strongly Disagree
_____ Indifferent	

10. Success is attainable for women in agricultural professions.

_____ Strongly Agree	_____ Disagree
_____ Agree	_____ Strongly Agree
_____ Indifferent	

11. Equality exists between men and women in agricultural professions in Uzbekistan.

_____ Strongly Agree	_____ Disagree
_____ Agree	_____ Strongly Agree
_____ Indifferent	

12. Should educational settings (lectures, programs) provide more information about agricultural professions for women?
13. What do you think are some educational needs for women in agricultural professions?
14. Should women be encouraged to seek careers in agricultural professions?
15. Do you feel there are barriers for women seeking careers in agriculture?

**C. Develop a demographic profile of women agricultural educators.**

1. What is your age?
2. What is your marital status? Single \_\_\_\_\_ Married \_\_\_\_\_  
Divorced/Widowed \_\_\_\_\_
3. How many children do you have, if any?
4. What is your religion?
5. How would you describe your social status? High, Middle, Low income
6. Name all the academic and honorary degrees you have received thus far.
7. What is your area of expertise?
8. How many classes do you teach per week?
9. How many students are in these classes?
10. How many of those students are female or male? Female  
Male
11. How many other women educators in agriculture do you personally know?



## REFERENCES CITED

- Acker, S. (1994). *Gendered education: Sociological reflections on women, teaching and feminism*. Open University Press; Buckingham, UK.
- Ahmed, L. (1992). *Women and gender in Islam: Historical roots in modern debate*. Yale University Press; New Haven, CT.
- Akner, S. (Ed.) (1996). *Central Asian Quarterly. The Labyrinth*. vol. 3 no.1  
Poliakov, (1992).
- Atkinson, D., Dallin, A., & Lapidus, G. (Eds.) (1978). *Women in Russia*. Hassocks, Sussex, UK.
- Barr, J. & Birke, L. (1995). *Cultures and contexts of adult learning: The case of women and science*. *Studies in the Education of Adults* vol. 27; 2 October.
- Benhabib, S. & Cornell, D. (1986). *Feminism critique on the politics of gender*. University of Minnesota, Press, Minneapolis, MN.
- Besteman, C. (1995). *Agricultural Systems: Income & Credit*. IN Henderson et al (Eds) (1995). *Gender and agricultural development: Surveying the field*. The University of Arizona Press; Tucson, AZ.
- Braker, (1989). *The Sovietization of Central Asia*. IN Malik, H. (Ed) (1994). *Central Asia: Its strategic importance and future prospects*. St. Martin's Press; New York, NY.
- Brett, B. (1991). *Pathways for women in the sciences*. Wellesley College Center for Research on Women; Wellesley, MA.
- Bridger, S. (1987). *Women in the Soviet countryside: Women's roles in rural development in the Soviet Union*. Cambridge University Press; Cambridge, UK.
- Boserup, E. (1970). *Woman's role in economic development*. George Allen & Unwin Ltd; London, England.
- Campbell, S.M. (1993). *An analysis of the philosophy of international agricultural and extension education: A post-positivist approach*. Unpublished doctoral dissertation. Department of Agricultural Education & Studies. Iowa State University; Ames, Iowa.
- Craumer, P. (1995). *Rural and agricultural development in Uzbekistan*. Royal Institute of International Affairs; London, England.
- Critchlow, J. (1991). *Nationalism in Uzbekistan: A Soviet republic's road to sovereignty*. Westview Press; Boulder, Colorado.
- Davis, S., Lubelska, C. & Quinn, J. (Eds) (1994). *Changing the subject: Women in higher education*. Taylor & Francis; London, England.
- Delamont, S. (1996). *A woman's place in education*. Ashgate Publishing Limited. Hants, England.

- Dugger, W.M. (1989). *Radical institutionalism: Contemporary voices*. Greenwood Press; New York.
- Eastman, K. (1988). *Mentoring and career development of university agricultural education faculty in the United States*. Unpublished doctoral dissertation. Department of Agricultural Education & Studies. Iowa State University; Ames, IA.
- Eickelman, D.F. (1993). *Russia's muslim frontiers: New directions in cross-cultural analysis*. Indiana University Press; Bloomington, Indiana.
- Elabshir, K. (1996). *Perceptions held by leaders of the National Young Farmers Educational Association regarding international agriculture: Implications for agriculture & extension education*. Published doctoral dissertation. Iowa State University, Ames, IA.
- Galbraith, M.W. (Ed) (1990) *Adult learning methods: A guide for effective instruction*. Robert E. Krieger Publishing Company; Malbar, FL.
- Griffen, K. (Ed.) (1995). *Social policy and economic transformation in Uzbekistan*. International Labour Office. United Nations Publication. Geneva, Switzerland.
- Guba, E.G. & Lincoln, Y.S. (1981). *Effective evaluation: Improving the usefulness of evaluation results through responsive and naturalistic ways*. Jossey-Bass Publishers; San Francisco, CA.
- Haghighi, M. (1995). *Islam and politics in Central Asia*. St. Martin's Press; New York, NY.
- Henderson, H.K. & Hansen, E. (Eds) (1995). *Gender and agricultural development: Surveying the field*. The University of Arizona Press; Tucson, AZ.
- Humm, M. (1992). *Feminisms: A reader*. Harvester Wheatsheaf; New York, NY.
- INSTRAW Publication. (1996). *Gender concepts in development planning: Basic approach*. United Nations; New York, NY.
- Jahan, R. (1995). *The elusive agenda: mainstreaming women in development*. Zed Books Ltd.:London, England.
- Johanson, C. (1987). *Women's struggle for higher education in Russia, 1855-1900*. McGill-Queen's University Press; Kingston & Montreal, Canada.
- Khoury, N.F., & Moghadam, V.M. (Eds) (1995). *Gender and development in the arab world: Women's economic participation, patterns and policies*.
- Kieffer, A. (1994). *Perceptions regarding the status of women in selected careers in agriculture: Implications to agricultural education*. Unpublished Master's thesis. Iowa State University; Ames, IA.
- Leahy, M.E. (1986). *Development strategies and the status of women: A comparative study of the United States, Mexico, the Soviet Union, and Cuba*. Lynne Rienner Publishers, Inc.; Boulder, Colorado.

- Lycklama a Nijeholt, G. (1991). *Towards women's strategies in the 1990s*. Nacnukkab Academic & Professional Ltd.; London, England.
- Malik, H. (Ed) (1994). *Central Asia: Its strategic importance and future prospects*. St. Martin's Press; New York, NY.
- Medlin, W., Cave, W.M., & Carpenter, F. (1971). *Education & development in Central Asia: A case study*. E.J. Brill:Leiden, Netherlands.
- Merriam, S. (1988). *Case study research in education: A qualitative approach*. San Francisco; Jossey-Bass Publisher.
- Mesbahi, M. (1994). *Central Asia and the Caucasus after the Soviet Union: Domestic and international dynamics*. University Press of Florida; Gainesville, Florida.
- Micklin, Philip P. (1992). *The aral crisis: Introduction to the special issue*. Western Michigan University Publication. vol. 33(5) pp. 269-282.
- Miles, M.B. & Huberman, A.M. (1994). *Qualitative data analysis*. Thousand Oaks, CA; SAGE Publications.
- Mlay, F.J., Roy, K.C., Tisdell, C.A. (1996). *Women and development in Sub-Saharan Africa with special references to Tanzania*. IN Roy et al (Eds). (1996). *Economic development and women in the world community*. Praeger Publishers; Westport, CT.
- Moghadam, V.M. (Ed) (1994). *Gender and national identity: Women and politics in muslim societies*. Zed Books, Inc.; London, England.
- Momsen, J.H. (1991). *Women and development in the third world*. Routledge; London, England.
- O'Connell, H. (1994). *Women and the family*. Zed Books Ltd; London, England.
- Olcott, M.B. (1996). *Central Asia's new states: Independence, foreign policy, and regional security*. United States Institute of Peace Press; Washington, D.C.
- Ostergaard, L. (1992). *Gender and development: A practical guide*. Routledge; London, England.
- Peers, J. (1985). *Workers by hands and womb: Soviet women and a demographic crisis*. IN Holland, B. (Ed.) (1985). *Soviet sisterhood*. Indiana University Press; Bloomington, Indiana.
- Pietila, H. & Vickers, J. (1990). *Making women matter: The role of the United Nations*. Zed Books Ltd; London, UK.
- \_\_\_\_\_. (1994). *Making women matter: The role of the United Nations*. Zed Books Ltd; London, England.
- Penson, M. (1996). *Uzbekistan*. Benteli Verlags AG; Wabern-Bern.

- Peterson, J. & Brown, D. (1994). *The economic state of women under capitalism: institutional economics and politics*. Edward Elgar Publishing; Hants, England.
- Pomfret, R.W.T. (1995). *The economies of Central Asia*. Princeton University Press; Princeton, N.J.
- Rywkin, M. (1982). *Moscow's muslim challenge: Soviet Central Asia*. M.E. Sharpe, Inc.; Armonk, NY.
- Rhoda, U., & Crawford, Mary. (1992). *Women and gender: A feminist psychology*. Temple University Press: Philadelphia.
- Roy, K.C., Tisdell, C.A., & Blomqvist, H.C. (Eds) (1996) *Economic development and women in the world community*. Praeger Publishers; Westport, CT.
- Rule, W. & Noonan, N.C. (Eds) (1996). *Russian women in politics and society*. Greenwood Press; Westport, Connecticut.
- Saito, K.A. (1990). *Agricultural extension for women farmers in Africa*. World Bank: Washington, D.C.
- Stephens, M.D (1990). *Adult education*. Cassell Educational Limited; London, England.
- Sunstein, Cass R. (Ed.) (1990). *Feminism & political theory*. Jossey-Bass Publishers. Thousand Oaks, CA.
- Tinker, I. (Ed) (1990). *Persistent inequalities: Women and world development*. Oxford University Press; New York, NY.
- Tong, R. (1989). *Feminist thought: A comprehensive introduction*. Westview Press; Boulder, Colorado.
- United Nations Publication. (1995). *From Nairobi to Beijing: Second review and appraisal of the implementation of the Nairobi-Looking Strategies for the Advancement of Women*. Report of the Secretary-General. United Nations, New York.
- United Nations Publication. (1995). *Women in a changing global economy: 1994 world survey on the role of women in development*. United Nations; New York.
- United Nations Statistical Yearbook 1993. (1995). *Department of Economic and Social Information and Policy Analysis: Statistical Division*. United Nations; New York.
- van den Hoonaard, W.C. (1997). *Working with sensitizing concepts: Analytical field research*. SAGE Publications; Thousand Oaks, CA.
- Wallace, T. & March, C. (Eds). *Changing perceptions: Writings of gender and development*. OXFAM; Oxford, England.
- Whelehan, Imelda. (1995). *Modern feminist thought*. New York University Press: New York.

Whitehead, T.L and Bloom, V.R. (1992). Gender constructs and social issues. University of Illinois Press; Urbana, Illinois.

Wilson, Margaret Atwood's fairy-tale sexual politics / Sharon Rose Wilson.

Published:

Jackson : University Press of Mississippi, c1993.

World Bank (1993). Uzbekistan: An agenda for economic reform. World Bank.

Young, K. (1993). Planning development with women: Making a world of difference. St. Martin's Press; New York, New York.

Young, K. (Ed.) (1988). Women and economic development: Local, regional and national planning strategies. Berg Publishers Limited; Oxford, UK.

## ACKNOWLEDGMENTS

Sincere thanks extended to Robert Martin, my major professor, for providing support, guidance and a gentle push when needed. Your words of wisdom both academically and professionally will long stay with me. Our paper in Washington, DC, this past April will definitely be a high point of my graduate studies at Iowa State. To my committee members David Acker, it has been an extreme pleasure working with you. I cannot express how much of a role model you have meant to me. Your undoubting belief in my abilities have taught me a great deal about life and the profession we're both involved in. Thanks so very much! And to my other committee member, Gail Nonnecke. From Ag Council until now, it has been something short of wonderful to know you. To walk into your office and to see your sense of spirit and enthusiasm has always been a treat. You have encouraged and supported me in more ways than you know and I can only hope to model after you.

Thanks to the people at TIIAME that made this study possible. A very special thanks to Svetlana, my coordinator. Without your persistence, commitment, and constant support, this study may have fallen a bit short. To my translators Natalia and Bulat. Natalie thanks for devoting your summer to this project. It is through your help and commitment that I have data to report. To Bulat, my other translator, thanks for all your help. Your life is a memory that was written within the pages of this thesis. May we never forget you.

Special thanks to my fellow graduate students. From conferencing in DC, Cincinnati, St. Louis and the much anticipated Las Vegas, it has been a rewarding experience. With all the

seminars, meetings, social functions and the office chit-chat, I couldn't have asked for better colleagues or friends! I thank you for your support and friendship!

Thanks to the staffs of IAP and AGEDS. Working in both departments have offered me challenging and exciting opportunities. A special thanks to Eduarda Becerra and Cheryl Abrams for your support and friendship during the last two years.

A very special thanks to my best friend, Michelle Cox in Wichita, KS. You are a true inspiration and have made me a stronger person having known you. Our teaching days in Nitra will long live with me, as well as our travels through Europe. I wish you all the love and happiness the world can give you. Thanks for everything, Miska!

Finally, a big thank you to my family back in St. Donatus, Iowa. Kevin and John, may you both find happiness and love. To Kim, good luck in your education and reach for the stars. Remember you have proven to yourself and others that you are not only beautiful, but talented and gifted! A special thanks to my aunt Mary for your support and all the cards!! And finally, a special thanks to my mom and dad. Your support through all my worldly travels and education may have waived at times, but you've always been there for me. You have made who I am and I will be forever grateful for that. Love Always, Julie.