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G.S.T.E.P.S

Gender Science, Technology and Economic Paradigm Shift

GASAT Introduction & Background

The beginning of the third millennium has already witnessed unprecedented changes in the domain of science, technology and the new economic order and the world of work. Different kinds of world socio-economic and political forces have brought about increasing pressures on the growing issues of gender within the developed and developing world. New paradigm orders are rapidly shifting their importance with respect to the overall welfare of humankind and thus **GASAT** has become a well-organized association which aims to contribute through Science and Technology to the promotion of greater equity and distributive justice.

BACKGROUND

Gender And Science And Technology (GASAT) Association is an international association of people concerned with issues arising from interactions between gender and science and technology.

The objectives of the **GASAT** Association are:

- To encourage research into all aspects of gender differentiation in science and technology education and employment.
- To foster gender equality in science and technology education.
- To facilitate the entry of women into employment in the fields of science and technology and their progress within such employment.
- To foster socially responsible and gender inclusive science and technology.
- To provide a forum for dissemination and discussion of research findings and experiences of those in the field.
- To provide a support network for those working towards the objectives outlined above.

GASAT international conferences are held every two to three years and have been central in establishing strong and influential networks of individuals and organisations that are engaged in research and grassroots activities with a view to promoting gender equity in science and technology.

The contributions and proceedings of **GASAT** conferences provide an important source of information on research and interventions in the field of gender, science and technology. In addition, **GASAT** provides an international forum for sharing research findings and strengthening global networks.

GASAT has its origin following the International Conference in the Netherlands in 1981. The subsequent conferences were held in: 1983 Oslo (Norway); 1985 London (UK); 1987 Ann Arbor (USA); 1989 Haifa (Israel); 1991 Melbourne (Australia); 1993 Waterloo (Canada); 1996 Ahmedabad (India); 1998 Accra (Ghana); 2001 Copenhagen (Denmark).

This is the first time that the **GASAT** international conference will be held in a small island state.

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PARADIGM SHIFTS OF NIGERIAN WOMEN TOWARDS SCIENCE AND TECHNOLOGY ADVANCEMENT: A CASE STUDY OF GENDER SOCIALIZATION PATTERNS OF IBIBIO SUB –CULTURE

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Abstract

The study aimed at determination of a paradigm shifts of Nigerian women in gender socialization patterns of Ibibio sub-culture towards science and technology advancement in Akwa Ibom State of Nigeria. It adopted a survey design, used Paradigm Shifts Questionnaire (PSQ) instrument and employed mean for data analysis with 2.0 as the benchmark. 23 socialization practices were identified as features of Ibibio traditional society prior to independence with 2.01 obtained as the lowest mean. 15 changes in current gender socialization practices of Ibibio sub-culture were determined with 3.05 obtained as the lowest mean. In the determination of Ibibio women participation and contribution towards Paradigm Shifts in Science and Technology considering the pre and post independent periods, 12 contributions were identified with 2.10 as the lowest mean.

1. INTRODUCTION

Background

The Beijing Platform for Action (PFA) was one of the major summits aimed at achieving the goal of women's advancements and development. Prompted by the provision of the United Nations document of Convention on Elimination of all Forms of Discrimination Against Women (CEDAW), the Federal Government of Nigeria has put in place national and local plans of action for implementation of CWDAAW. The Federal Ministry of Women Affairs and Social Development in collaboration with the United Nations Development System (UNDS) recently commissioned national baseline Survey of the Positive and Harmful Traditional Practices for Monitoring of progress towards this global initiative (Ministry of Women Affairs and Social Welfare 2001). "It was a taboo for Ibibio woman to participate in any programme affecting the welfare of her environment but, today, there are unprecedented and acknowledged changes in the Ibibio society" (Abbe 1989). It therefore becomes necessary to catalogue the changes in gender socialization practices and their reflections in the defined aspects of women societal development.

This study was purposed to determine the paradigm shifts of Nigerian women in gender socialization Patterns of Ibibio-sub-culture towards science and technology advancement in Akwa Ibom State. Specifically, to identify the gender socialization practices of the old traditional Ibibio society, determine the current changes in gender socialization practices of the contemporary Ibibios and assess Ibibio women's participation and contributions towards paradigm shifts in science and technology considering the pre and post independence periods. The following research Questions were formulated to guide the study

What are the gender socialization practices of the old Ibibio traditional society?

What are the current changes in the gender socialization practices among the contemporary Ibibio people?

What are the involvements and contributions of the Ibibio women towards paradigm shifts in development of sciences and technology considering the pre and post independence periods.

It is hoped that the findings of this study would possibly influence the attitudes and ideologies of the Ibibios and Nigerians to shift from harmful gender-based cultural practices and be encouraged to participate more effectively in science and technology advancement, contributing to the building of the Nigerian Nation and the African Society.

2. THEORETICAL FRAMEWORK

2.1 Gender Socialization and Paradigm Shifts

Gender socialization practices are the various practices, processes, activities, and methods employed to en-culturize or recruit the males and the females as members of a given organization, institution or society. Paradigm Shift refers to a positive and significant change or alteration from that which has been before towards a modular or exemplar patterns.

2.2 Gender Socialization Practices of The Old Traditional Ibibio Society.

A comprehensive review of literature reveals the following practices as gender Socialization practices of Ibibio traditional society

- Domestic Violence (Wife Battering) (Ekong 1983, Essen 1982)
- The Use Of Cultural Institution As Symbol Of Supremacy (Udo 1983, Ekong 1983)
- Harmful Widowhood Practices (Ministry Of Women Affairs And Social Welfare 2001)
- Women Domestication (Okobi 1988, Okon 2002)
- Sex Preference And Male Dominance (Abasiattai 1987, UNICEF Nigeria Zone A 1998)
- Sex And Career Stereotyping (Akpan 1996, Suara 1999)
- Female None Or Selective Access To Education (Essen 1982, Abasiattai 1987)
- Deprivation Of Right Of Inheritance (Essen 1982).
- Child Abuse (Etuk And Nyong 1993, Okon 2002)
- Polygamy: (Essen 1982, UNICEF Zone A 1998)
- Wife Abandonment (UNICEF Zone A 1998)
- Mutilation Of Female Genital Organ (Essen 1982, Okoko 1988)
- Harmful Delivery Practices (, Ekong 1983, Ekanem, 1992,)
- Early Marriage, Force Marriage And Child Betrothal (Essen 1982, Ekong 1983)
- Girl Withdrawal From School (Nwabah 1996, Amiola And Sule 1996)
- Denial Of Shelter For Women (UNICEF Zone A 1998)
- Women Suppression And Discrimination (UNICEF Zone A 1999)
- Culture Of Women Silence. (Essen 1982)

2.3 Changes In Gender Socialization Patterns Of The Ibibios

Christianization has brought marked changes in the Ibibio traditional society. Gradual changes according to Ekong (1983) and Abasiattai (1987) have been noted in the Ibibio social system and structure. Socialization of the child to a great extent is being removed from the family to the formal institutions and the churches. Added to the traditional marriage rituals now is the court marriage and church wedding. The function of mate selection rests now on the spouse and child betrothal practice is obsolete amongst the present Ibiobios (Ekong 1983). The men now provide for their families and mothers have adopted various birth control methods to reduce family sizes.

The modern Ibibio girls do not appreciate female genital mutilation. The 'Ndam' and 'Nyama' traditional organization that prepared girls for marriage have been denounced by the Christian

doctrines (Essen 1982). Instead of depending solely on traditional birth attendants, the Ibibio pregnant women receive adequate medical attention. Rather than celebrate in market squares after antenatal care, she organizes thanksgiving in church.

The present Ibibio wives resist being inherited by their deceased husbands' relations. Access to legal right in the Law court and writing of wills have given the Ibibio woman greater opportunity of inheritance against the customs. Modern Ibibio women now hold leadership positions in the society, and are opportuned to be seen and equally heard against the culture of women silence. Women domestication is succinctly diminishing as husbands and parents realize the need to send their spouses, and female children to schools.

2.4 Participation And Contribution Of Women Towards Paradigm Shifts In Science And Technology.

A. Agriculture: In the past, the presence and contributions of women were not strongly emphasized nor given prominence, but presently as observed by Saito e'tal (1991) there is growing realization of the role of women in agricultural development. This is evident in the Women in Agriculture (WIA) Programme in Nigeria which is an integrated programme of the Akwa Ibom Agricultural Development Projects (AKDEP) of the World Bank, aimed at making women active contributors to economic development of their nation in the agricultural sector, through improved techniques of agricultural production for increase productivity thereby shifting from crude and traditional methods of production. (Ekong 2001).

B. Industry: Reports from Akwa Ibom women NGOs/CBOs and Co-operative indicate that there are 803 women Co-operative Societies and 126 NGOs/CBOs, of which 74% are actively participating and contributing towards the development of science and technology in the state. Ibibio women engaged in Food processing such as palm produce, cassava processing, fish smoking, Rice Milling, Soap and Pomade manufacture, Construction Work, Launderette Services, Timber Work, Land Survey, Pastry, Textile Work, Pottery and Ceramic Works, Shoemaking, Craft and Raffia Work. A reflection at the different types of scientific and technical areas women engage in, show less emphasis on career stereotyping.

C. Education: Reduction of women illiteracy is achieved through campaigns organized by Adult and Non- Formal Education Agency. The promotion of science and mathematics during long vacation programmes for young females are highly commendable. The number of women science teachers have been on the increase in recent years. Women in science-based professions are battling with the issue of education and career stereotyping.

D. Health: Report from the Ministry of Health confirms that remarkable impact have been recorded in the Health sector. Ibibio women are educated on Expanded Programme on Immunization (EPI), Oral Re-hydration Therapy (ORT), Nutrition, Acquired Immune Deficiency Syndrome (AIDS) and Sickle Cell. Women receive treatments at the family life center at Mbribit Itam, Uyo – Akwa Ibom State for Vesico Vagina Fistula (VVF). Under the Better Life Programme (BLP), significant number of children and pregnant women received immunization and vaccinations against diseases. (Abasiattai 1987). The Family Support Programme (FSP) pursued vigorously such programmes as the girl child programme, the drop out projects, among others. The Nigerian nation selected Akwa Ibom state women as the third best state, in the State FSP implementation programme under Mrs. Aisha Bako in 1997. The BLP and FSP brought a sure reality of rural transformation.

3. METHODS

3.1 Research And Area of Study Design:

The study adopted survey design was conducted in Akwa Ibom State, lying at the south-east corner of Nigeria territorial expanse, covering a land area of 7,246.499 sq km, The State is made up of 31 Local Government Areas (LGAs) categorized into three Senatorial Districts of Eket, Uyo and Ikot Ekpene, with a population of over 4 million.

3.2 Population, Sampling Techniques and Sample Size:

The population of the study comprised of Ibibio women in science and technology with specific reference to women Non Governmental Organizations, (NGOs), Women Corporate Body Organisations (CBOs), Women Corporative Societies and Government officials dealing directly with women in science, industrial and technological activities in Akwa Ibom State.

Purposive Sampling Technique was employed in the study. The sample yielded a total of 180 subjects drawn from 30 Women NGOs/CBOs (3 members each) across the three Senatorial Districts out of the 126 NGOs/CBOs in the state and 90 government officials were selected from five government ministries. Viz: Ministry of Women Affairs and Social Welfare, Bureau of Science and Technology, Ministry of Commerce and Industry, Ministry of Agriculture and UNDP Akwa Ibom State office. 18 Officials were selected from each Ministry.

3.5 Instrument, Validation and Data Collection.

A 50 item structured questionnaire "Paradigm Shifts Questionnaire (PSQ), with four point rating scale response options was developed validated by women experts in science professions and used for data collection by members of the research team.

4. DATA ANALYSIS AND RESULTS:

Data were presented and analyzed based on the research questions and mean was employed to answer the three research questions 1, 2, and 3 using 2.0 point as the bench mark for decision making.

4.1 Research Question 1: What were the gender socialization practices of the Ibibio traditional society prior to 1960?

TABLE 1

N = 180

S/N	ITEMS OF SOCIALIZATION PRACTICES IN IBIBIO SUBCULTURE	X	REMARK
1	Mutilation Of Female Genital Organ	3.78	*
2	Sex Preference And Male Dominance	3.84	*
3	Women Domestication	3.31	*
4	Gift Wife Practice (Donation Of Girls As Gift)	3.12	*
5	Polygamy	3.84	*
6	Wife Abandonment	3.13	*
7	Large Family Size	3.36	*
8	Child Abuse	3.24	*
9	Deprivation Of Right Of Inheritance	3.49	*
10	Harmful Delivery Practices	3.13	*
11	Early Marriage (Teenage Marriage)	3.53	*
12	Forced Marriage	3.23	*
13	Child Betrothal	3.46	*
14	Denial Of Shelter For Women	2.01	*
15	Women Suppression And Discrimination	3.32	*
16	Culture Of Silence Among The Women	3.37	*
17	Use Of Cultural Institution As Symbol Of Supremacy	3.30	*
18	Harmful Widowhood Practices	3.44	*
19	Wife Battering (Domestic Violence)	3.41	*
20	Female None Access Or Selective Access To Education	3.77	*
21	Inadequate Sex Education	3.12	*
22	Girl Withdrawal From School	3.26	*
23	Preparation Of Young Girls For Marriage By Some CBO ('Ndam' And 'Nyama' Traditional Organisation)	2.25	*

Note: * Accepted Gender Socialization Practices of Ibibio Sub-culture. Cut off point at 2.0 point and above.

Table 1 reveals all the items in S/N 1 – 23 with mean above 2.00 the cut-off base. It is evident therefore that the 23 items were the gender socialization practices of the Ibibio sub-culture during the pre-independence period (Pre 1960)

4.2 Research Question 2: What are the current changes in the gender socialization practices among the contemporary Ibibio people?(post 1960)

TABLE 2

N = 180

S/N	ITEMS OF CHANGES IN GENDER SOCIALIZATION PRACTICES	X	REMARK
24.	The need to formally educate both the female and the male child is now appreciated.	3.76	*
25.	Ibibio women leadership positions are seen and heard against the custom.	3.36	*
26.	The Ibibio man shoulders great responsibility in producing for his family than before.	3.18	*
27.	The function of socialization is gradually removed from the family to educational institutions.	3.14	*
28.	Ibibio women appreciate and enjoy modern general medical services.	3.63	*
29.	There is reduced rate of female genital mutilation among the present day girls.	3.55	*
30.	Girls are now taught by their mothers and the church on how to be good house wives.	3.19	*
31.	Pregnant women today receive post-natal and pre-natal care hospitals.	3.49	*
32.	Ibibio women inherit their husbands' property through legal means.	3.44	*
33.	There is less emphasis on career stereotyping as more women are coming into science and technological based professions in Akwa Ibom State.	3.18	*
34.	Women domestication seen to antagonize scientific attitudes is succinctly diminishing.	3.34	*
35.	Ibibio traditional birth attendances are now trained on improved medical standard.	3.05	*
36.	The subject of child betrothal is a past story in the practices of Ibibios.	3.49	*
37.	The individual right of the woman is not deprived in the process of make-selection.	3.40	*

*Note: * Accepted changes in Gender Socialization Practices of Ibibio sub-culture Cut off point is 2.0 and above.*

Table 2 indicates that 15 items (S/N 24 – 38) have mean above 2.0 benchmark implying that these are the changes in gender socialization practices of the Ibibio sub-culture from post independence to the contemporary Ibibio society.

4.3 Research Question 3: What are the involvements and contributions of the Ibibio women towards paradigm shifts in sciences and technology advancement in Akwa Ibom State considering the pre & post independence period?

TABLE 3

N = 180

S/N	ITEMS OF WOMEN PARTICIPATION AND CONTRIBUTIONS IN SCIENCE AND TECHNOLOGY	X	REMARK
39	Akwa Ibom women have now achieved increased food production due to improvement of technology compared to pre-independent period.	3.33	*
40.	Manual processing techniques have been replaced by machine e.g. grinding machines, etc.	3.22	*
41.	Women are now involved in launderette (cleaning) service.	2.98	*
42.	They are now involved in land survey as professional than before.	2.10	*
43.	They now involved in the manufacturing of soaps and creams more than the pre-independence days	3.31	*
44.	They engaged in pottery and ceramics with improved technology	3.43	*
45.	Women appreciate family planning and seek to down on family sizes	3.84	*
46.	Female are realizing the need to take up science and technology courses in schools	3.63	*
47.	Women appreciate and subject themselves and their children to immunization/vaccination exercise	3.75	*
48.	Ibibio women were actively involved in health developments under the BLP/FSP	3.27	*
49.	Ibibio women were actively involved in industrial developments under the BLP/FSP.	3.29	*
50.	Ibibio women were actively involved in agricultural developments under the BLP/FSP.		

*Note: * Accepted participation and contribution towards paradigm shifts in Science and Technology Advancement Cut off point 2.0 and above.*

Data presented in Table 3 highlights 12 items (Nos. 39 – 50) of women participation and contributions towards paradigm shifts in Science and technology advancement in Akwa Ibom State. All had mean above the baseline of 2.00.

Discussion

[1] Gender Socialization Practices of Old Ibibio Sub-culture

The results of the study on gender socialization practices of the Ibibio sub-culture presented in Table 1 are in consonance with the numerous literatures on sub-heading 2.2 of this paper. The results indeed attest to the then suppression of the natural endowment and potentials of women, which could have been harnessed for sustainable development of the society. The situation calls for intervention to reverse the trend in line with universal development patterns.

[2] Current Changes in Gender Socialization Practices of Ibibio Sub-culture

The results presented in Table 2 confirm the reviewed paradigm shifts, articulated from literature in sub-heading 2.3 of this paper. The results support the theory of sustainable development, which stresses improvement over traditional societal practices. The changes in socialization practices forms the framework for re-orientation of women in science, technological development and ensures the relevance of Ibibio women in socio-economic, political cultural and educational scheme of affairs.

[3] Women Participation and Contributions Towards Paradigm Shifts in Science and Technology Considering the Pre and Post Independence Period.

The result of this study on women participation and contributions towards paradigm shifts in science and technology in Akwa Ibom State presented in table 3 authenticates literatures reviewed on women and their contributions in science and technology on subheading 2.4 of this paper. The result indicates participatory human development activities considering the women as key elements in the process. This conforms Ibibio women model shifts in science and technology and their efforts at sustainable development.

5. CONCLUSIONS AND RECOMMENDATION

The traditional negative gender socialization practices of the pre-independent Ibibio sub-culture had been a prominent bane in the wheel of overall development of Akwa Ibom society. The practices had negated the recognition of the status and roles of women in development process, but with modern education, science and technology, significant paradigm shifts as it affects the women have been recorded. It is imperative therefore to call for global cooperation with sub-cultures to put in place relevant policies and legislation for positive gender socialization patterns and practices for an assured societal development at sustainable level.

References

- Abasiattai A. (1987) *Better Life For Rural Women Dweller*. Better Life Publication. Uyo Nigeria.
- Abasiatai M. B. (1987) *Akwa Ibom and Cross River States. The Land, The People and Their Culture*. Wusan Press, Calabar – Nigeria (p. 224).
- Abbe P. E. (1989) *The Journey So Far: Abasiatai A. (ed): Better Life for Rural Dweller. Better Life Publication. Government Printing Press, Uyo, Akwa Ibom State, Nigeria.*
- Akpan P. A. (1996) *Gender Imbalance In Access To Education: Implementation For South Eastern Nigeria in Oruwari Y ed. Women Development and The Nigerian Environment. Vantage Publishers International Ibadan, Nigeria (p 171 – 180).*
- Ameila B. F. and Sule H. O. (1996) *Culture and The Girl Education. Gender Issues In Education and Development. Books of Reading. University Trust Publishers. Enugu, Nigeria. Vol. 8 (p. 81 – 84).*
- Ekanem I. A. (1992) *Female Malignancies in South Eastern Nigeria, Kisekka M. N. (ed) Women Health Issues in Nigweria. Tanazer Publishers Company Ltd. Zaria (p. 39 – 48).*
- Ekong A. O. (2001) *Access To Finance Facilities For Improving Agricultural Production By Women in Agriculture In Akwa Ibom State. A Ph.D Thesis, University of Nsukka, Nigeria*
- Ekong E. E. (1983) *Sociology of The Ibibios, Scholars Press Nig. Ltd. Calabar – Nigeria. P. 107 - 111*
- Essen A. J. A. (1982) *Ibibio Profile – A Psycoliteracy Projection. Press and Book Ltd. Calabar – Nigeria.*
- Etuk and Nyong (1995) *The Plague Called Teenage Pregnancy. Government Publishing Press, Uyo, Nigeria. Uforo Iban Akwa Ibom Vol. 1 No. 1 (p. 26 – 27).*
- Ministry Of Women Affairs And Social Welfare Akwa Ibom State. (2001). *Report On Harmful Traditional Practices Affecting Women And Girls In Akwa Ibom.*

- Nwaba G. N. (1996). *Improving female Gender Capabilities. A Case Study for Renewed Emphasis*. Oruwari Y. (ed) Women Development and The Nigerian Environment. Vantage Publishers International, Nigeria (p. 16 – 23).
- Okon U. A. (2002) *Gender Disparity In Science, Mathematic And Technology in Akwa Ibom State. A Paper Presented At The National Conference Hosted By Institute of Education, University of Uyo, Uyo – 13th – 16th March*.
- Okobi V. (1998). *The Girl Child: The Nigerian Women*: National Commission for Women Publishers Abuja, Nigeria (p. 28 – 30).
- Okoko E. U. (1988). *Ubiom History, Customs and Culture, Calabar: Pico Ltd. (Press and Book) (p. 50 – 60)*.
- Saito, A. K. Mokonnen, H. & Spurling, D., (1994). *Raising the productivity of women farmer in sub-saharan Africa*. Washington D.C. The World Bank
- Suara J. (1999). *Gender Dimension in Equalizing Education Opportunity in Nigeria*. Aghenta J. A. and Isamail T. (ed) The Nigeria Academy of Education. Tarnaza Printing Company Ltd. Zaria, Nigeria (p. 161 – 175).
- United Nations 1995 Draft Platform For Action Fourth World Conference On Women. Beijing 4/15 September
- United Nations 1993 The Nairobi Forward/ Looking Strategies For The 'Advancement Of Women. UN Department Of public Information New York, September.
- United nations General Assembly (1981) *Convention on the Elimination of All Forms of Discriminations Against Women*.
- Udo E. U. (1983). *Who Are The Ibibios*. African Feb Publishers Limited. Onitsha, Nigeria.
- UNICEF Nigeria Zone A. (1998). *Gender and Development Awareness and Sensitization: Afrobis Publishing ltd. (P. 26 – 27)*.