

Gender Analysis for Sustainable Agricultural Development

Chekene, Mohammed Buba
Department of Agricultural Technology
Federal Polytechnic Bali, Nigeria

Abstract:- Creating interest and excitement around gender study has become an important part of agricultural development. Government and other stakeholders are giving more priority to gender issues and support their investment to empower women and diminish discrimination between genders. In Nigeria Women in agricultural extension (WIA) was established in other to increases voice and share of women in agricultural sector. Unfortunately this development comes with challenges and limitation that increases gender inequality. Gender system is diverse and complex as they determine by environmental norms and value. This paper review the evidence that is in public domain in relation to limitation of WIA in access to agricultural land resources, cultural belief and tradition of the people in the social system. It had been found that the women in agricultural approach resulted to gender differences and promotes gender inequality as it did not consider norms and value of the community. Therefore Women and development approach should change with Gender and Development (GAD) approaches. Policy makers and government at all levels should serve as driving tools in promoting gender and development approach and the implication for supporting (WIA) may result to gender bias that may affects societal culture, belief and tradition that may resulted to total rejection of the program and consequently it may cause a serious threats to agricultural development of the country.

Keywords:- *Women in Agriculture, Gender and Development, Gender equality, agricultural development.*

I. INTRODUCTION

Gender equality has a strong concern globally and its interest was to address differences among men and women in relations to their needs and responsibilities. Though gender inequality is a multidimensional and complex (Alkire *et al.*, 2013). Although women produce more than half of world food (FAO, 2011). And 43% of agricultural labour (Doss, 2014). Women invest more than men on family well-being especially on; child education, health and nutrition (Duflo, 2012). Meanwhile women empowerment has a non-stop effects on agricultural productivity and household food security (Sraboni *et al.*, 2014). Gender Equality is the sharing of resource opportunities, support and encouragement without any injustice on the basis of sex or among men and women. It also refers to woman having the same chances in life with man. For example, the

ability to participate in developmental projects. If genders were giving the same chances, the equalities may attained.

➤ *Gender Analysis*

Gender investigation is a methodical way of collecting facts on gender inequality and its relationship with the aim of understanding and equalise the dissimilarities (Reeves and Baden, 2000). Gender study was to examine the relations between men and women's role, right and duties as they have dissimilarities in their performance such as understanding, wants, neediness, ability and skill (UNESCO, 2003). In agricultural organisation, Gender study gives a comprehensive understanding on how to describe the roles and tasks between men and women in processing and production (Doss, 2013). Gender study analyse the role and duty that fit man or woman. For example females were characterised by non-violent and honest than men (Cornell *et al.*, 2007). However, overemphasising women desirable quality may resulted to gender inequality (Davids *et al.*, 2014). Gender study is related to so many factors such as class, age, sex, race, culture, belief, region, and political interest among others (Phoenix and Pattynama, 2006; Davis, 2008). Meanwhile how does the gender issue start?

➤ *Evolution of Women's Development*

The concept of promoting women's developmental project had started a long way. The project and time of introduction is far back as 1950, when women welfare was introduced, women economic self-reliance 1960, efficiency in women resources 1970, the projects of women equity and empowerment started in 1985. The concepts that brings these issues are; women poverty, special needs, vulnerability of women, underemployments, unproductive and dependence, under-development in human capital, improve access to capitals, structure of disparity, discrimination in access to loan, schooling and land, gender power relation, social and political resistance. (World Development Report, 2010). However, the concept of solution comes to provides support facilities to health, nutritional diet, child care, encourage self-reliance and independence, provide creative skills, boost enterprises, identify women's actual roles and rearrange the gender division of work, females access to innovation and capitals, implementation of equal chance for women in school, access to elements of production, increase women involvement in development project, control over productive means and use approaches of mobilisation for joint action (World Development Report, 2010). What are the global gender so far?

➤ *Global Gender Gap*

The Global Gender Gap (GGG) was 68%. This wide gap comes as a result of some of the countries hold belief and tradition so tied. That restricts some of the opportunities of women. The factors that considered by GGG/WEF are four (4) 1. Economic participation between gender scored (58%), 2. Educational attainment scored (95%), 3. Health and survival rate scored (96%), 4. Political empowerment (23%) (GGG/WEF, 2017).

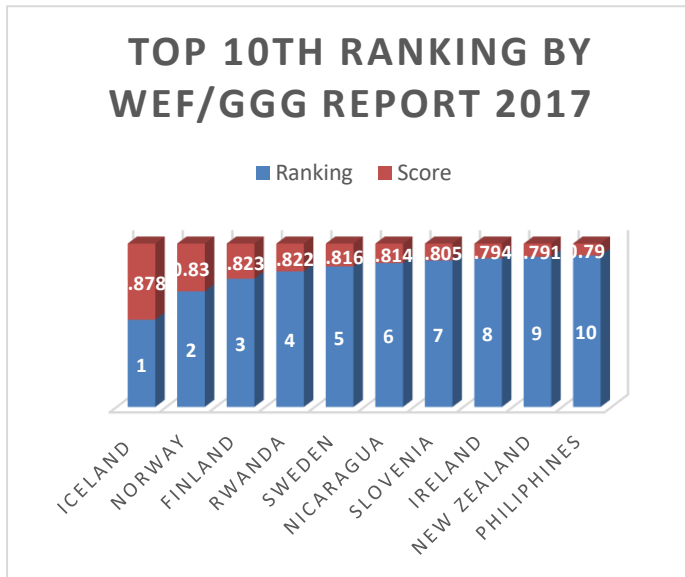


Fig 1

The figure 1 above shows top ten countries in ranking by WEF/GGG Report 2017 and Iceland is the first in the list follows by Norway, Finland and Rwanda 2nd 3rd and 4th respectively. This shows that closing gender gap is all about justice within the gender not being developed or developing countries. As Rwanda hold number four in GGG ranking.

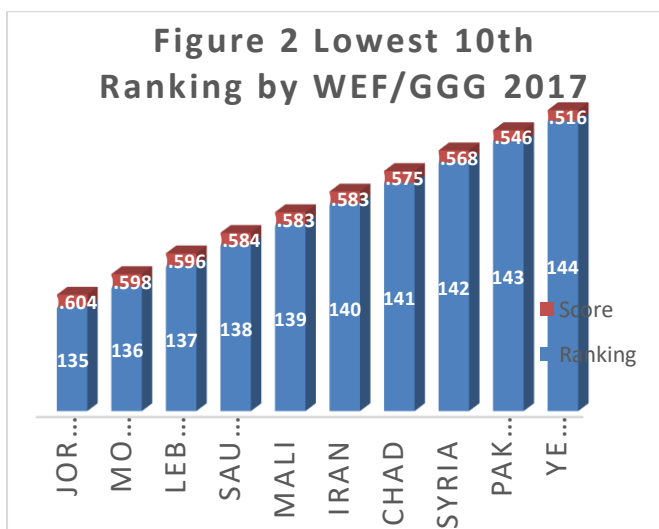


Fig 2

The figure 2 above shows that Yemen was the lowest in ranking with a total score of 0.516 among 144 countries that have been assessed by the GGG report of 2017 by

world economic forum (WEF) of World Bank. The major reasons for not closing their gender gap are cultural belief, and tradition of the people in their social system. The lowest 10 in ranking majority of them were Arab nations that shared the same belief, tradition and culture. Yemen is the roots of most of the Arabian countries while even Mali is influences by Arabian cultural belief and that influences their ways of doing things.

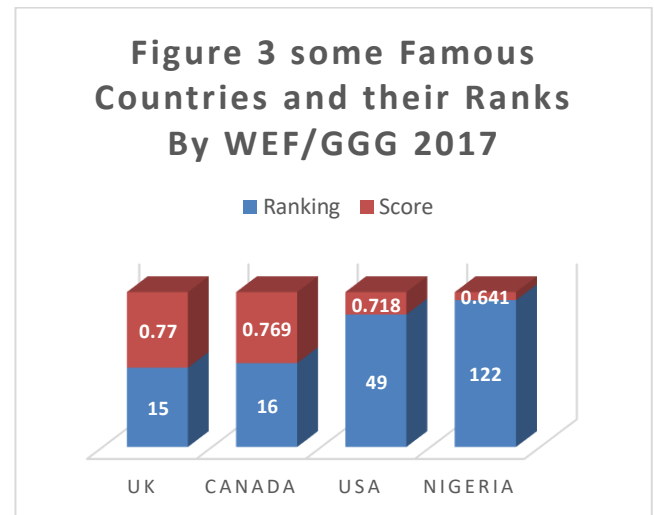


Fig 3

The figure 3 shows the famous countries around the globe with their ranking and score. UK rank 15 had scored 0.77 while Canada score 0.769 rank 16. However, USA largest world economy with a multi-culture and belief score 0.718 rank 49 meanwhile the largest African economy and most famous and largest black nation on earth score 0.641 rank 122 among the 144 countries (GGG, 2017).

Government at all levels and NGOs are progressively pointing females as importance clientele and consolidating their investment to empower them in other to shrink inequality between genders (Gates, 2014). In effort to achieve this objectives in Nigeria, Women in Agricultural Extension (WIA) program was established by the federal ministry of agriculture and World Bank and compacted the program into agricultural development programme (ADP) so as to improve women’s access to agricultural information, resources and decrease gender difference level (World Bank, 2003). This strategy is called Women in Agriculture (WIA). It resulted to a serious challenges of gender disparity in agricultural development programme and the main problem of the program is poor understanding of what gender means. Gender is a major coordinator and regulator of activities between people in agricultural system, demand and supply, production and consumption (FAO, 2004). Meanwhile roles and duties depends on environmental and sociocultural factors of the social system that attached to either man and woman. Inability to understand gender analysis may resulted to gender sightlessness and increases gender inequality. Good understanding of gender equity will help programme planners and policy makers in agricultural development to achieve their objectives. Gender is not a man nor woman

rather how they relate. Gender is a public exercise, impression and qualities giving to male or female (Kingiri, 2010). The aim of this study was to analyse the limitation and challenges of WIA in relation to gender inequality in agriculture.

➤ *Objective of the study*

The purpose of the study was to look into gender issue in agricultural development and address the gender inequality of Women in Agriculture (WIA) as Women in Development Approach (WIDA)

II. METHODOLOGY

Two agricultural gender programs were chosen and examined deeply into the programs and identify the sensitive issues in gender such as; access to land, belief, tradition and culture of the people in a social system. Women in Development Approach (WIDA) was compared with Gender and Development (GAD) Approach.

➤ *Roles of Women in Agricultural Development of Developing Countries*

Women play a significant role in agricultural development. They contributed nearly 60-80% of food and more than half of the global foods were produced by the women (Mehra and Rojas, 2008). They devote 85-90% of labour force on family food handling and preparation (Fontana and Natalia, 2008). Time sharing study shows that women work is incomparable with their men counterpart (Bud lender, 2008). Moreover, girls spend more time in house labour than boys (Sharma *et al.*, 2007). According to Damisa, *et al.*, (2007) 60- 90% of total farm labour was done by females. These comprise a range of activities such as land clearance, ploughing, weeding, establishing and application of fertilizer, harvesting, shelling, threshing, sorting, grinding, transporting and marketing among others. However, agricultural and economic plans give less concern to women (Fabiya *et al.*, 2007). In Africa if gender equality has been implemented appropriately it will increase agricultural output by (20%-30%) and 2.5 – 4.0% increase in global yield and it will reduce global food insecurity by 12-17% (FAO, 2010).

➤ *Women in Agricultural Development in Nigeria*

In Nigeria, women have done a lot in agricultural development. They contribute nearly 90% of agricultural activities (NAERLS, 2000; Ogunlela and Aisha, 2009). Women offer 80% of labour in agri-business activities and up to seventy percent (70%) of small scale agricultural business (Auta, 2004). Despite their role, females have been ignored in decision making and agricultural plans (Afolabi, 2008). The women's effort has been affected by lack of extension contact (Charles and Willem, 2008). These are among the causes why Nigeria government initiated women in agricultural extension programme (WIAE) so as to rise the women's voice in agricultural system (Tolobonse *et al.*, 2013). On the other hand, women in agricultural approach considered only women and their effort was to increase the level of women involvement in decision making in resource management (World Bank, 2007). This

approach will affect gender issue negatively because it concentrates on women only (Jackson, 1996). Meanwhile, separation of women with men in agricultural activities is difficult. Women work together with men with division of labour. For example, men perform hard work (cutting trees, making ridges) while women are involved in tedious work (planting, harvest, winnowing, shelling, hand weeding, transporting goods, processing and marketing (Lawanson, 2008). Men/women play an important role in agricultural development (Sharon, 2008). Considering only women may lead to gender bias. Any program that supports one side of gender in resource and fiscal policies will increase the level of poverty in the area (World Bank, 2001). The WIA program considers roles played by men in women empowerment (UNESCO, 2003). This may attract new challenges to gender equality. In addition, women in agricultural (WIA) program has shortage of women extension staff, this resulted in difficulty in accessing their clientele, again majority of WIA staff are not agricultural professionals and also the program lacks agricultural development program supports due to poor understanding of gender (Kingiri, 2010).

➤ *Access to Land Resources*

Land is one of the basic resources for agricultural production while WIA program did not give emphasis on the importance of land access to women while land tenure is a major problem to women in developing countries, especially in agricultural societies (Yisimi and Aisha, 2009). In Nigeria women were facing trouble with land access (Oladejo *et al.*, 2011). In the study of rice production in Nigeria found that women access to land is difficult (Ayoola *et al.*, 2011). According to Ojenhomon *et al.*, (2013) in gender approach study found that men take advantage in resource access than women especially land and credit. Although some women accessed land through their men in most parts of Nigeria. However, in accessing loan from financial institutions, land may serve as a good collateral and women lack land for claiming the loan (Sulo *et al.*, 2012). Furthermore, women in developing countries were experiencing a difficulty with land tenure. For example, Santal women in India perceived owning land as a taboo, to the extent that women do not inherit land due to their respect to cultural belief and they embrace this culture so as to retain their identity/integrity as a good woman "Good women do not inherit land" Book title (Rao, 2008). Meanwhile, methods of acquiring land are diverse between man and woman (Doss *et al.*, 2011). For example, in Uganda majority of women engage in joint ownership of land with their husbands but only few of them have the formal document of their land and even those with formal documents they have less control over the land (Bomuhangi *et al.*, 2011). In some cultures of northern Nigeria for example, in case of inheritance land was allocated to men while other wealth to women.

➤ *Cultural Belief and Tradition*

Gender system is diverse and complex. It is determined by environmental culture (Mason and Smith, 2003). The environment and degree of gender inequality and conditions to empower females vary at different locations (Alker *et al.*,

2013). For instance WIA program do not analyses the diverse Nigerian cultural belief in a broad sense. Nigeria has a wider cultural diversity with many ethnic groups and their attachment to culture and belief will not allow them to tolerate the program that comes with woman's program. According to Butt et al., (2010) culture, traditional, belief and family resistance were the main hitches of woman's farmers. Traditional taboo is associated with agricultural labour (from cultivation to husbandary), belief and ethnicity have a tough committed to agricultural production activities (Oladejo et al., 2011). Belief and traditional values affect woman that does not belong to any association in accessing agricultural information (Sulo et al., 2012). In some cases, even a nation with the same faith they comprehend policies otherwise. In Afghanistan for example Sunni Islamic sect women are more restricted than Shi'as Islamic sect's women (Srinivas et al., 2013). Meanwhile, this situation is commonly happen in Nigeria base on location whereby northern women are more restricted than the women from the southern part of the country.

➤ *Religions and Gender*

Differentiation which is the practice of distinguishing categories based on some attributes in the fundamental way of assigning roles in human race. Although religion practice equality of human being in the sight of GOD, but Islam and Christianity preaches that the woman should submit herself to the man. In contrast with the understanding of great Islamic commander and political leader Uthman Dan Fodio in his book Nur al –alub (the light up the way). *The right of women and corresponding responsibilities of men thus: "Most of our educated men leave their wives, their daughters morally abandoned without teaching them what Allah prescribed to them. They thus leave them ignorant of the rules regarding ablution, fasting, business dealing and other duties which they have*

to fulfil and which Allah commands that they should be taught" (Musa, 1992). He further stated that *"Men seek only their own satisfaction, and why they impose upon you such task which the law of Allah never specially assigned to you.*

There is a story in the Bible (John 8:2-1) that says a women was caught red handed in an act of adultery: and she was brought to Jesus for judgement and possible prosecution. The problem is that, the woman was brought by men and they did not present the man who committed adultery with the woman. Therefore if any program give only priority to woman then the program may suffer a setback.

➤ *Gender and Development approach (GAD)*

The Gender and Development (GAD) gives priority to both men and women and they look at how they interact with one another (IFAD. 2000:4). This approach may decrease gender disparity, encourage gender equality, authority sharing and brings answer to developmental problems (Nyamu, 2000). This approach (GAD) considered gender at the centre focal point of development and is gender related approach (Bradshaw et al., 2013). This approach addresses women that experience restrictions in accessing resources, empowerment and participation through equal treatment given to all (Narciso and Henrique, 2010). Gender and development approach deliberate men/women relation, address differences that hinder growth, and this will promote sustainability (UNESCO, 2003). It is all-inclusive approach that has a great impact on multi-developmental agenda (IFAD, 2000). Therefore, Agricultural production system is impossible to distinct between woman with man.

➤ *Women in Agricultural development and Gender and Development Approach*

	Women in Agriculture	Gender and Development
The Approach	Seeks to incorporate females into the development	Pursues to invest women and transform imbalanced relations between woman and man
The Focus	Females	Relations between men and women
The Problem	The exclusion of females from the development projects	Imbalanced relation of authority that prevent equitable development and women's full involvement
The Goal	More proficient and active development to women	Rightful, sustainable development female and men sharing policymaking and control
The Strategies	Implements women's project, incorporated project that improve women efficiency and earning	Recognise and address immediate needs resolute by women and men to improve their situation Categorise and address women's and men's lasting needs

Table 1

III. CONCLUSION AND RECOMMENDATION

Conclusively, Gender and Development (GAD) approach is more comprehensive and respectful program to people's socioenvironmental factors and it's socially correlated approach as it considers who deserve roles and responsibilities among members in an agricultural system. The gender and development approach is more important in addressing gender related issue than women in agricultural approaches as it redress the developmental issues between man and women, this may stabilise the relationship in policymaking, access to resources, division of labour and respect to people's belief and tradition while Women in agriculture (WIA) may promote gender bias because it only consider women in it programme.

The study recommended that

- The project planners should consider the gender equality in resource access such as land, agricultural inputs and advisory services.
- The government/private sector should promote; Gender and Development Approaches as they can't separate man-woman in agricultural system.
- The policy makers should compact women in agriculture into gender in agriculture that respects cultural belief among the members of the social system.

REFERENCES

- [1]. Abdoulaye, T., Amaza, P. S., Olanrewaju, A. S. and Ellis-Jones, J. (2012). Promoting the adoption of innovation through participatory approaches. Example from the northern Nigeria. *Tropicultura*, 30 (3), 155-160
- [2]. Afolabi, M. M. (2008). Women as pillars of national economy in Nigeria: A study of economic activities of rural women in six local government areas of Ondo State. IAFPE summer conference, *International Association for Feminist Economics*, Toronto, Italy, 19th June – 21th July.
- [3]. Auta, S. J. (2004). Performance of Women Groups in Agricultural Activities in Kaduna State Unpublished Ph.D Thesis, Department of Agricultural Economics and Rural Sociology, Ahmadu Bello University, Zaria
- [4]. Ayoola, J. B., Dangbegnon, C., Daudu, C. K., Mando, A., Kudi, T. M., Amapu, I. Y., Adeosun, J. O. and Ezui, K. S. (2011). Socio-economic factors influencing rice production among male and female farmers in Northern Guinea Savannah Nigeria: lessons for promoting gender equity in action research. *Agriculture and biology Journal of North America*, 2(6), 1010-1014
- [5]. Beaman, L., and Dillon, A. (2012). "Do Household Definitions Matter in Survey Design? Results from a Randomized Survey Experiment in Mali." *Journal of Development Economics*, 98(1), 124–135
- [6]. Bomuhangi, A., Doss, C. and Meinzen-Dick, R. (2011). Who Owns the Land? Perspectives from Rural Ugandans and Implications for Land Acquisitions. *IFPRI Discussion Paper 01136*. Washington, DC: International Food Policy Research Institute
- [7]. Bradshaw, S., Castellino, J. and Diop, B. (2013). Women roles in economic development: overcoming the constraints. *Sustainable Development Solution Network, United Nation*
- [8]. Budlender, D. (2008). The statistical evidence on care and non-care work across six countries. Geneva: United Nations Research Institute for Social Development (UNRISD).
- [9]. Butt, T. M., Hassan, Z. Y., Mehmood, K. and Muhammad, S. (2010). Role of rural women in agricultural development and their constraints, *J. Agric. Soc. Sci.*, 6(3), 53–56
- [10]. Charles, A. and Willem, Z. (2008). Participation in Agricultural Extension, The World Bank participation sourcebook, Appendix II, *Working Paper Summaries*.
- [11]. Cornwall, A., Harrison, E. and Whitehead, A. (2007). Gender myths and feminist fables: the struggle for interpretive power in gender and development. *Development and Change*, 38(1), 1–20
- [12]. Damisa, M.A. and Yohanna. M. (2007). Role of rural women in farm management decision making process: Ordered probit analysis. *Trends in Applied Science Research*, 2(3), 241-145
- [13]. Damisa, M. A., Samandi, J.R. and Yohanna, M. (2007). 'Women Participation in Agricultural Production: A probit analysis', *Journal of Applied Sciences*, 7(3), 412-414
- [14]. Davids, T. and van Driel, F. (2005). The Gender Question in Globalization: Changing Perspectives and Practice. Ashgate, Aldershot
- [15]. Davids, T., van-Driel, F. and Parren, F. (2014). Feminist change revisited: gender mainstreaming as slow revolution. *Journal of International Development*, 26, 396-408
- [16]. Davis, K. (2008). Intersectionality as buzzword. *Feminist Theory*, 9(1), 67–85.
- [17]. Deere, C. D., Alvarado, G. E. and Twyman, J. (2010). Poverty, Headship, and Gender Inequality in Asset Ownership in Latin America. *Working Paper 296*. East Lansing, MI, US: Centre for Gender in Global Context, Michigan State University
- [18]. Doss, C. (2013). Data Needs for Gender Analysis in Agriculture. *International Food Policy Research Institute Discussion Paper 01261*. Washington, DC.
- [19]. Doss, C., Truong, M., Nabanoga, G. and Namaalwa, J. (2011). Women, Marriage, and Asset Inheritance in Uganda. *Working Paper 184*. Chronic Poverty Research Centre. Manchester, UK:
- [20]. FAO (2010). Roles of women in agriculture. Prepared by the SOFA team and Cheryl Doss. Rome. <http://www.fao.org/docrep/013/i2050e/i2050e.pdf> accessed 29/06/2014

- [21]. FAO (2004). *Building on Gender, Agrobiodiversity and Local Knowledge*. Training Manual. FAO, Rome, Italy.
- [22]. Fabiyi, E. F., Danladi, B. B., Akande, K. E. and Mahmood, Y. (2007). 'Role of Women in Agricultural Development and their constraints', *Pakistan Journal of Nutrition*, 6 (6), 676-678
- [23]. Fisher, M., Reimer, J. and Carr, E. (2010). "Who Should Be Interviewed in Surveys of Household Income?" *World Development*, 38 (7), 966–973.
- [24]. Fontana, M. and Natali, L. (2008). Gendered patterns of time use in Tanzania: Public investment in infrastructure can help? *Paper prepared for the IFPRI Project on 'Evaluating the Long-Term Impact of Gender-focused Policy Interventions*.
- [25]. Gender and Agriculture: unlocking African potential. *A case of Nigeria: giving voices to women farmers*. http://womenthrive.org/sites/default/files/images/agfa_ctsheet.nov17.pdf%20.pdf accessed 03/07/2014
- [26]. IFAD. (2000). International Fund for Agricultural Development. Gender Perspective: Focus on Rural Poor. An overview of gender issues in IFAD-assisted projects. IFAD, Rome. Available at <http://www.ifad.org/pub/gender/engl.pdf>
- [27]. Jackson, C. (1996). Rescuing Gender from the Poverty Trap. *World Development*, 24 (3), 480-504
- [28]. Kabeer, N. (1994). *Reversed realities: Gender hierarchies in development thought*. Verso London and New York.
- [29]. Lawanson, O. I. (2008). Female labour force participation in Nigeria: 'Determinants and Trends', Oxford Business and Economic Conference Program, Oxford, United Kingdom. June 22 - 24th, 2008.
- [30]. Mehra, R. and Rojas, M. H. (2008). "A Significant Shift: Women, Food Security and Agriculture in a Global Marketplace," International Centre for Research on Women (ICWR), <http://capacity4dev.ec.europa.eu/hunger-foodsecurity-nutrition/document/women-food-security-and-agriculture-global-marketplace-significant-shift> accessed 02/07/2013
- [31]. Moser, C, Moser, A (2005). Gender mainstream since Beijing. A review of success and limitation in international institutions. *Gender and development*. 13 (2) 11-22
- [32]. NAERLS. (2000). An assessment of contribution of women to family farming in north- eastern Nigeria. Report of a research sponsored by the National Agricultural Research Programme, Abuja, Nigeria. National Agricultural Extension and Research Liaison Service, Ahmadu Bello University, Zaria, Nigeria.
- [33]. Nasiciso, V. and Henriques, P. (2010). Women and land in Timor-Leste: issue in gender and development. *Indian Journal of Gender Studies*, 17(49), 59-72
- [34]. Nyamu, C. I. (2000). How human right and development should responds to cultural legitimisation of gender hierarchy in developing countries. *Harvard International Journal*, 4 (2), 381-418
- [35]. Odebode, S. O. (2008). Appropriate Technology for Cassava Processing in Nigeria: *Users*
- [36]. *Point of View Journal of International Women Studies*, 9(3), 269 – 283
- [37]. Odurukwe, S.N., Matthews-Njoku, E. C. and Ejioku-Okereke, N. (2006). Impacts of the women-in-agriculture (WIA) extension programme on women's lives: implications for subsistence agricultural production of women in Imo State, Nigeria. *Livestock Research for Social Development*, 18(2), 301-314
- [38]. Ogunlela, Y. I. and Aisha A. M. (2009). Gender Issues in Agriculture and Rural Development in Nigeria: the Role of Women. *Humanity & Social Sciences Journal*, 4(1), 19-30
- [39]. Ojehomon, V. E. T., Ayinde, O. E., Adewumi, M. O. and Omotesho, O. A. (2013). Determinant of technical efficiency of new rice for Africa (NERICA) production: gender approach. *Ethiopian Journal of Environmental Studies and Management*, 6(5), 435-460
- [40]. Oladejo, J. A., Olawuyi, S. O. and Anjorin, T. D. (2011). Analysis of Women Participation in Agricultural Production in Egbedore Local Government Area of Osun State, Nigeria. *International Journal of Agricultural Economics and Rural Development*, 4(1), 1-11
- [41]. Peterman, A., Quisumbing, A. R., Behrman, J. and Nkonya, E. (2011). "Understanding the Complexities Surrounding Gender Differences in Agricultural Productivity in Nigeria and Uganda." *Journal of Development Studies*, 47(10), 1482–1509.
- [42]. Phoenix, A. and Pattynama, P. (2006). Intersectionality. *European Journal of Women's Studies*, 13(3), 187–192.
- [43]. Quisumbing, A. R. (1996). Male–female differences in agricultural productivity: methodological issues and empirical evidence. *World Development*, 24(10), 1579–1595.
- [44]. Rao, N. (2008). *Good Women do not Inherit Land: Politics of Land and Gender in India*, Social Science Press and Orient Black swan, New Delhi, India.
- [45]. Reeves, H. and Barden, S. (2000). Gender and development: Concept and definition (DFID). <http://www.bridge.ids.ac.uk/reports/re55.pdf> accessed 12/07/2014
- [46]. Sharma, S., Nagar, S. and G. Chopra. (2007). Household responsibilities of adolescent girls in Kangra and Kullu Districts in Himachal Pradesh. *The Anthropologist*, 9(3), 199-201
- [47]. Sharon, B.H. (2008). 'Rural Women and Food Security' FAO Participation in Panel *Discussion on the occasion of the International Day of Rural Women* held in New York; 15th October, 2008.
- [48]. Srinivas, T., Malika, A., Aden, A., Rishkowsky, B., Tibbo, M and Rizvi, J. (2013). Gender roles in Agriculture: the case of Afghanistan. *Indian Journal of studies*, 20(1) 111–134

- [49]. Sulo, T., Koech, P., Chumo, C. and Chepng'eno, W. (2012). Socioeconomic factors affecting the adoption of improved agricultural technologies among women in marakwet country Kenya. *Journal of Emerging trends in Economics and Management Science*, 3(4), 312-317
- [50]. Tologbonse, E. B., Jibrin, M. M., Auta, S. J. and Damisa, M. A. (2013). Factors influencing participation of women in agriculture (WIA) programme of Kaduna state agricultural development project, Nigeria. *International Journal of Agricultural Economics and Extension*, 1(7), 47-54
- [51]. UNESCO. (2003). Gender mainstreaming implementation framework. <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/BSP/GENDER/PDF/1.%20Baseline%20Definitions%20of%20key%20gender-related%20concepts.pdf> Accessed 12/07/2014
- [52]. World Bank. (2003). Nigeria: Women in agriculture, *In: Sharing Experiences—Examples of Participating Approaches*. The World Bank Group. The World Bank Participating Sourcebook, Washington, D.C. <http://www.worldbank.org/wbi/publications.html>
- [53]. World Bank (2007). The world bank participation sourcebook. Nigeria: women in Agriculture. <http://www.worldbank.org/wbi/sourcebook/sb0212htm> World Bank (2009). *The Food and Agriculture Organisation of the United Nations (FAO) and the International Fund for Agricultural Development (IFAD). Women in Agriculture Sourcebook*