



Directorate of Research on Women in Agriculture
(Indian Council of Agricultural Research)
Bhubaneswar

Vision 2030

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Compilation

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सचिव एवं महानिदेशक
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FOREWORD

The diverse challenges and constraints as growing population, increasing food, feed and fodder needs, natural resource degradation, climate change, new parasites, slow growth in farm income and new global trade regulations demand a paradigm shift in formulating and implementing the agricultural research programmes. The emerging scenario necessitates the institutions of ICAR to have perspective vision which could be translated through proactive, novel and innovative research approach based on cutting edge science. In this endeavour, all of the institutions of ICAR, have revised and prepared respective Vision-2030 documents highlighting the issues and strategies relevant for the next twenty years.

The Directorate of Research on Women in Agriculture, Bhubaneswar is a unique institution which is working to understand the role and problems of women in agriculture and their implications for agricultural development, and informed the researches and policy makers with inputs for gender based decision making. It has envisioned the challenges and opportunities for women in agriculture and drawn a road map in the form of Vision 2030 to strengthen gender research in agriculture and make women vibrant partners in agricultural development.

It is expected that the analytical approach and forward looking concepts presented in the 'Vision 2030' document will prove useful for the researchers, policymakers and stakeholders to address the future challenges for growth and development of the agricultural sector and ensure food and income security with a human touch.

Dated the 9th June, 2011
New Delhi

(S. Ayyappan)

PREFACE

The world community today sincerely recognizes the role of women in agriculture and the constraints that they face in earning a decent and sustainable livelihood. There is growing evidence suggesting that women's underdevelopment has adverse bearing on growth and development of agriculture. Therefore time has come for us to make concerted efforts to address gender issues and provide support for social, technological and economic empowerment of women. One of the important steps in this direction is integration of gender perspective in agricultural research, extension and policies so as to make women an important partner in sustainable agricultural development. The Vision 2030 document of DRWA narrates the broad strategy to be adopted by DRWA for addressing gender issues and empowering women as an important human resource for agriculture.

I am highly grateful to Dr. S. Ayyapan, Secretary, DARE and DG, ICAR for his invaluable guidance in preparing *DRWA Vision 2030*. I am thankful to Dr. K.D Kokate, DDG (AE), Indian Council of Agricultural Research for his kind support and encouragement. I thank my fellow scientists for giving their inputs in developing the vision 2030 document.

Dated the 9th June 2011
Bhubaneswar



(KRISHNA SRINATH)

Director

Directorate of Research on Women in Agriculture

Preamble

The association of women with agriculture dates back to the day crop production started on earth. Since then, agriculture has undergone a sea change through conscious and unconscious interventions of human beings and the actions of nature. The horizon of agriculture sector has expanded with adoption of new scientific knowledge and technologies for production and processing. Past decades witnessed a move towards more intensive agriculture with application of modern inputs to meet the growing food needs of a burgeoning population. However, the process has been accompanied by some unintended and undesirable changes that are threatening the sustainability of agriculture sector. The share of agriculture and allied sectors in country's GDP has been declining continuously. In India, it has come down to about 15% in 2009-10. The performance of agriculture sector across the developing world has not been encouraging. Since agriculture continues to be the pivotal sector for achieving high economic growth, employment and food security in India as well as in other developing economies, the big question is how to make agricultural development sustainable and inclusive in the face of rapid socio-economic transformation and emerging challenges? In the midst of such changes what has perhaps not changed much is the nature and contours of women's participation in agriculture. Even though over years, the proportion of women workers in agriculture has declined, yet at global level they are a significant workforce for agriculture in the sense that they constitute about 43% of economically active population in agriculture. Looking region-wise, agriculture supports very high proportion of economically active women, particularly in Asia and Africa. In India, agriculture supports more than 60% of economically active women.

Research studies across the countries have made us to realize that gender issues are an important subject of concern in the context of agricultural development. This is not only because women are an important human resource for agriculture but also because they constitute an important socio-economic group who bear the brunt of, and are vulnerable to the development ills of the sector that may have long term impact on the sector itself. Some issues such as persisting gender gap in access to various resources like land, credit, technology, opportunities and different social and market related services and socio-cultural barriers have constrained majority of women from realizing their productivity in agriculture. Ironically, despite several sector and economy based measures in India and other developing nations, gender issues have continued to shadow the development of not only women but also sectors like agriculture and rural development. Realizing the continued socio-economic backwardness of women in many developing

countries and its consequences for development, the United Nations has set 'gender equality and women empowerment' as a millennium development goal, which more than 140 signatory member countries have to strive for.

The relation between gender and agricultural R & D process is complex that needs to be properly understood for contemplating context-specific action to empower women and address gender issues in changing scenario. It is therefore paramount that gender research in agriculture be strengthened to explore and find sustainable solutions to the prevailing and emerging gender issues confronting agriculture sector. While agricultural researchers need to be provided with gender based inputs for generating new knowledge, technologies, practices and processes suitable for women, planners and policy makers would need inputs to enhance effectiveness of interventions for higher, sustainable and gender inclusive development of agriculture.

Directorate of Research on Women in Agriculture (DRWA), formerly known as National Research Centre for Women in Agriculture, Bhubaneswar, established in 1996, is a unique institution that is devoted to gender research in agriculture. Since its inception, this institution has undertaken a number of research studies to identify and address gender issues, and came up with concepts, models and knowledge for dissemination and application. This institution has also been looked upon as an important agency for consultancy and advocacy in the field of women empowerment and gender mainstreaming in agriculture. As gender roles are dynamic, so also gender issues. With the demand for gender related inputs in programme planning, technology development & assessment and policy making increasing, DRWA prepares itself to take up the responsibility of meeting those demands. DRWA has developed approaches for strengthening the gender perspective in agricultural research and create an enabling environment in NARS. Based on the past research experiences, the Directorate envisions the challenges and opportunities for women vis-à-vis the agriculture sector, and identifies priority areas of research. Attention is also given to overcome the supply & demand side constraints by bolstering the institutional capacity through various measures such as appropriate institutional and policy frameworks, whereby a more favourable and larger space can be created for women in agriculture to tap the opportunities by harnessing the power of science and technology.

The Vision 2030 document of DRWA touches upon some of the key the challenges and opportunities for women in agriculture in next two decades, discusses a R& D strategy on gender and the role of Directorate of Research on Women in Agriculture thereof in strengthening gender perspective in agricultural research and development for achieving sustainable and gender equitable development of agriculture.

Women and Agriculture : The Scenario

Agriculture is pivotal for economic development and food security. Good performance of agriculture is crucial to eradicate poverty and hunger. But agriculture is underperforming in many developing countries for a number of reasons; one being low productivity of women engaged in agriculture due to several gender-specific constraints. Poor performance of agriculture has heightened the risk and uncertainty that has affected the poor including women. In fact poor economic status of women is linked to poor performance of agriculture depending on extent of participation. Therefore it is important to strengthen women's participation in agriculture so that they can contribute more effectively and benefit equitably. Moreover, it has become imperative to empower farmwomen, who are an important human resource for agriculture, with scientific knowledge and technology, and bridge the gender gap in access to productive resources.

Work participation

World over, about 42% of women workers are engaged in agriculture. However, there is considerable difference across countries and regions of the world. In India, about 60% of women workers are in agriculture. An interesting feature of women's participation in India is the variation across regions (that increases from north to south), socio-cultural and economic groups and across agro-ecological and production systems. Importantly, they carry out a wide range of activities. In India, the work participation rate among women has increased from just 12% in 1971 to over 25% in 2001 while among men it has remained just over 51%. High female work participation rate was reflected in more number of women workers in agriculture as evident from increased share of women workers in total agricultural workers that stands at about 40%. However, the number of marginal female workers has increased manifold. Another notable point is that, among Indian states, there is considerable gender gap in work participation rate. While some of the north eastern states, Himachal Pradesh and Chattisgarh have narrow gender gap in work participation, other states, particularly in northern and eastern India have wider gender gap. This calls for creation of more opportunities and a favourable environment for women to participate in agriculture. Considerable agricultural and occupational diversification has taken place in rural areas during last decade, particularly with promotion of micro enterprises. Extensive training and demonstrations coupled with favourable policies in agriculture might encourage women's participation in agriculture.

Access to resources & services

Farmwomen suffer from different kinds of access handicaps both in terms of extent and quality of access. It is important to note that inadequate and poor quality access forms an important link in the vicious circle of underdevelopment of farm women. Even though changes have taken place during past years, yet access constraints of women to various resources like land, credit, appropriate technology, opportunities, and different social and market related services still remain the crucial bottleneck in the process of women development. Importantly, what has been missing is access to complete package of facilities and services required by women at a point of time. As a result women continue to work in traditional moulds without much visible changes in their life and livelihood.

Globalization

Globalization has become a reality for countries to experience. Despite a series of negotiations between member countries, amicable solutions to some of the issues confronted by developing countries, particularly with respect to agriculture are not in sight. A major concern today is how and to what extent agriculture would be affected by globalization. Due to major policy shifts in different countries, farmers would be subject to international competitions. Volatility in prices of agricultural commodities both national and international markets, as has been experienced recently, are likely to influence production and market related decisions thereby affecting production of different crops and farm income. In medium and long run it may trigger structural changes including changes in cropping pattern. Structural and technological changes, apart from adversely affecting production and income level of women producers, would also affect work and employment opportunities that could be detrimental to the interest of women workers. Thus farming community, more importantly women workers may get exposed to increased risk and vulnerability as far as their livelihoods are concerned. Extensive research is required to map the impact of such changes on agriculture, farm women and their livelihood, and find both short term and long term solutions.

Food & nutritional Security

Persisting food and nutritional insecurity is a major concern of development for the global community. As reported by FAO, about 1.023 billion people world over were undernourished in 2009, which would come down to 925 million in 2010. Regional spread of undernourished people indicates that about 88% of world's undernourished people are in Asia, Pacific and Sub-Saharan Africa. Women and children are worst affected. Under nutrition among women increases reproductive and maternal health risks, and lowers productivity. This situation contributes to

women's diminished ability to gain access to other assets later in life and undermines attempts to eliminate gender inequalities. Though governments have tried to address the issue through measures such as food and nutritional supplementation, sustainable solutions to the problem still elude us. Sudden spurt in prices of important food items in domestic and global market and its consequences for poor people has once again brought to the fore the fragility of food situation and vulnerability of poor including women and children. Therefore improving the performance of agricultural sector through gender focused agricultural programmes at macro level and Science & Technological innovations (for example for promotion of nutritional gardens in the backyards and community lands) at micro level would hold key to enhance the availability of nutrition-rich food to women and their family.

Natural resource degradation

Depletion and degradation of natural resources are major concerns for human kind today. And, it has largely been the consequence of over-exploitation and mismanagement by human beings themselves. Loss of natural resource base has wider implications for sustainable development and livelihood security of poor, particularly women. Degradation of natural resources such as soil and water is an important cause of stagnating or declining yields, especially in fragile and disadvantaged regions where women are major contributors to family income and food security. Degradation of forest resources has created problems of livelihood security for forest dwellers, particularly the tribal people. In recent years increasing privatization of common property resources and usurp by unscrupulous action have also reduced access of women to these resources. Since the poor women depend heavily on these natural resources for a large part of their livelihood, their loss results in declining economic activities, reduced income and more burden on women. Therefore there is a need for research with focus on gender for well informed policy making and programme development for sustainable management of natural resources.

Labour mobility

Globally, migration of men, both intra- & inter-sectoral and regional, has become an important phenomenon. Of late, there has been migration of women along with men also. Declining prospect of agriculture in many areas and better opportunities in non-agricultural sectors are triggering migration of workers out of agriculture. Most recently, as some reports suggest, government development schemes like MNREGS, are creating adverse effect on labour supply in agriculture. Such a process has a definite bearing on the prospect of agricultural development. There is therefore a need to understand the labour and gender dynamics in the

emerging scenario through holistic research for informed policy making and development of location specific models for agriculture. How to create opportunities in and around villages and how to sustain the farm-household system has become a challenge for researchers.

Climate Change

The effects of global warming and the concomitant climatic changes loom large over agricultural sector. There are debates and discussions on how the crop and livestock systems would be affected and the possible ways to mitigate the impact. It is believed that global warming would increase frequency of extreme conditions such as drought, flood, cyclones that may adversely affect prospect of agriculture in many regions of the globe, even though some positive effects may be expected in certain areas. Poor prospect of agriculture would mean loss of farm income to cultivators and agricultural labourers. Women, being an important work force, could be the worst sufferers.

Furthermore, changing hygrothermal conditions might adversely affect human health and well-being depending on degree of heat stress. Farm women in particular may become more vulnerable as they are involved in more drudgery prone activities. With a large chunk of farm women suffering from malnutrition, the impact of climatic change could be more severe on women's health, working capacity and participation in agriculture. In this connection it is important that the adaptation and mitigation strategies must contain gender perspective so as to address concerns of women and agriculture.

Invisibility of women

Women play an important role in agriculture including animal husbandry, fisheries etc. But they have remained invisible due to various reasons. Women are largely concentrated outside market related and remunerative work domains. Moreover, they are normally engaged in multiple tasks. They belong to a contingent of unpaid family workers in family enterprises. All these have made proper accounting of women's contribution difficult. Conceptual and methodological obstacles in netting women's work and persisting gender bias in our society have also contributed to undervaluation and invisibility of women's contribution. Research should focus on developing methodologies of quantifying women's contribution within households and in different crop and livestock based systems.

DRWA & Gender Research

The National Agricultural Research System of India comprising 97 ICAR research institutions and 51 State Agricultural Universities and their Regional Research Stations, 4 Deemed Universities, one Central Agricultural University, agricultural faculties of 5 Central Universities and 592 KVKs is the one of the largest research systems in the world engaged agricultural research and education.

Having realizing that the research information and the technologies developed in the ICAR Institutes and State Agricultural Universities rarely incorporated the farmwomen perspective and there was, therefore, a gap in the technology available at the research stations and the technologies suitable for farmwomen, the Working Group on Agricultural Research and Education constituted by the Planning Commission for the formulation of the Eighth Five Year Plan (1992-97) recommended establishment of National Research Centre for Women in Agriculture to undertake research relevant to the needs of women in agriculture and home management and for generation of jobs involving flexibility in time, duration and place of work for women. Accordingly, National Research Centre on Women in Agriculture (NRCWA) was established in 1996 at Bhubaneswar. Now called the Directorate of Research on Women in Agriculture, this unique institution is expected to play a catalyzing role in making agricultural R & D institutions gender aware and enabling them strengthen gender perspective in their programmes.

Mandate

Carry out basic, strategic and applied research to identify gender issues and test appropriateness of available farm-technologies, programmes and policies with women perspective ; to undertake training and consultancy for promoting gender mainstreaming in research and extension for empowerment of farmwomen and capacity building of scientists, planners and policy makers to respond to the needs of the farm women.

Objectives

- Undertake studies to assess farm technologies, programmes, institutions and policies with gender perspective
- Understand the dynamics of gender role in different agro-ecological and production systems and its linkages with agricultural development

- Identify and understand drudgery related issues and other constraints among farmwomen and suggest measures for increasing their work efficiency
- Create and maintain a database on gender in agriculture to meet information needs of stakeholders
- Develop gender sensitive science & technology based models and institutional innovations for sustainable livelihood security and empowerment of women.
- Capacity building of R & D professionals for addressing gender issues in agriculture
- Documentation and dissemination of gender based knowledge among the stakeholders

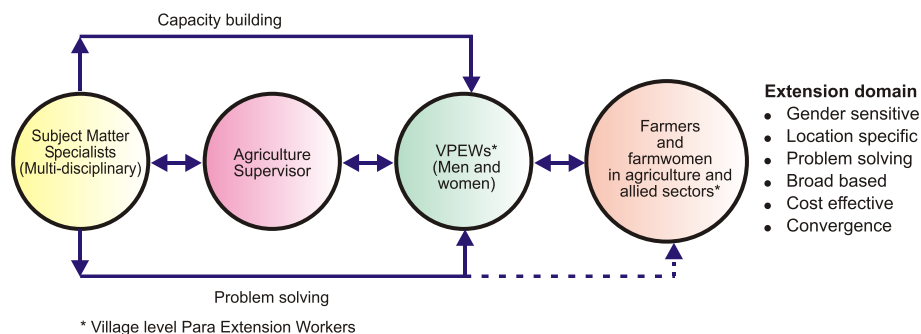
Since its inception, DRWA has been engaged in undertaking research on gender issues and techno-economic opportunities for women in agriculture. It has focused on participatory action research in different technology based theme areas involving rural women to test gender suitability of technologies and suggest for their refinement. DRWA, through networking and collaboration with various Agricultural Universities and ICAR institutions, has reached out to a wider spectrum of clientele in different parts of India and undertaken R & D activities for strengthening gender perspective in agricultural research and development.

Gender sensitization is the first step towards strengthening gender perspective in research and development. DRWA has developed a conceptual model on gender sensitization process involving different stages and resource material for trainers.

Through a number of aquaculture based interventions, DRWA has created a significant impact on the lives of women in several villages of coastal Odisha. The Directorate has come up with extension innovations to augment supply of quality fish seeds in the localities with the participation of rural women has demonstrated the aquaculture potential of small back yard ponds, community ponds and derelict water bodies in enhancing the fish production and consumption. DRWA introduced innovations using locally available low cost earthen tanks for promoting ornamental fish production by women and worked on different marketing models.

The Directorate has been engaged in research to identify gender issues in agricultural extension system and develop gender sensitive extension models for providing effective extension delivery mechanism to rural women. It has developed and tested a Village Level Para-Extension Workers (VPEWs) model that has been found effective in meeting extension needs of both men and women. Above all, the model can provide a strong village level extension institution and the

VPEWs can serve as positive conduits between village and government departments in formulation and implementation of micro-level programmes. The model has been suggested to the Planning Commission for up-scaling.



DRWA has identified nutritional and livelihood security of women and children as an important domain of research. Through its research efforts, the Directorate has developed a sweet potato based weaning food for the infants.

Availability of women friendly tools and equipment is very crucial for women to carry out the activities at home and in the farm efficiently without much drudgery. DRWA has so far evaluated 55 farm tools developed by different institutions for their gender friendliness. A gender-friendly maize dehusker-cum-sheller based on ergonomic considerations has been developed which is ready for commercialization.



Maize dehusker-sheller

Other areas of research at DRWA include development of horticulture based cropping models to meet the needs of farmwomen, gender work participation, gender & agricultural policies, women agricultural workers, livelihood of women etc.

Capacity building of agricultural R & D professional has been an important activity of the Directorate. Through different trainers' training programmes and sponsored courses, DRWA has been imparting training and orientation to R & D professionals to educate them on the subject and enable them identify and address gender issues in their own domain. Consultancy and advocacy services to government departments on gender based programmes and policies are important activities of DRWA.

A key institution under Indian Council of Agricultural Research, DRWA has been consistently working to address gender issues in agriculture. As the subject of gender is becoming more and more important in the context of sustainable and inclusive development, this Directorate would have to play a more important role in the coming years.

Thrust areas of DRWA Research

- Gender disaggregated data and documentation
- Technology assessment and refinement
- Gender issues in farming system
- Drudgery assessment and reduction
- Gender sensitive extension & institution
- Agricultural policies and gender issues
- Research methodology and approaches

International efforts

A number of international research and development institutes in the field of agriculture and development have long started realizing the importance of gender and need for focusing on women. Along with their core activities of research and development, they have consciously tried to add gender focus in order to create wider impact and make results gender inclusive. UN organizations like FAO, UNDP, WB and CGIAR institutions have worked to create and mobilize opinion of professionals, academicians and policy makers to look at women. They are forging collaboration with national governments and organizations to move ahead towards achieving women empowerment with gender inclusive policies and programmes. Countries like Canada, Norway are well ahead with gender focused strategy and are good examples for others. In India, DRWA under Indian Council of Agricultural Research is the pioneer in institutionalizing gender research in agriculture. Success in some areas such as research methodology and interventions has been achieved. But there are many things to achieve. DRWA will seek greater linkage and collaboration with such departments and international research institutes for mutual exchange and sharing of knowledge and to create new opportunities for women in agriculture.

DRWA 2030

The Directorate of Research on Women in Agriculture, since its inception, has tried to reach out to different parts of the country to explore gender issues and understand the status of women's participation in different production systems. Through a number of capacity building programmes, it has created a pool of gender sensitive functionaries. It is very much aware of its responsibilities as a catalyst to bring about a positive change in the lives of women who are struggling to wrest a decent living from agriculture and unable to escape the vicious circle of livelihood insecurity. There are also a large section of women who are a great prospect for agricultural sector but sitting on the edge and trying to find space in agriculture. As a responsive organization, DRWA would work closely with other stakeholders to create opportunities for women in agriculture.

Vision

Emerge as a leading centre for gender research and serve as a catalyst for gender mainstreaming and women empowerment in agriculture to realize enhanced productivity and sustainability of agriculture.

Mission

Generate and disseminate knowledge to promote gender sensitive decision making for enhancing efficiency and effectiveness of women in agriculture.

Focus

To accomplish the vision and mission, DRWA recognizes 'farmwomen' as an important partner in sustainable development of agriculture and strongly advocates gender sensitive agricultural R & D strategies to address gender issues. Drawing upon lessons of past years, DRWA would strive hard to make R & D stakeholders gender sensitized and the present National Agricultural Research System gender-aware so as to strengthen gender perspective in agricultural research. Similarly, DRWA is readying itself to meet the growing demand of R & D institutions for gender based inputs with innovative approaches. It would focus on the following key areas.

- Promote gender sensitization & capacity building of stakeholders in agricultural R & D to appreciate and address gender concerns
- Strengthen the institutional capacity to understand socio-economic, technological and policy issues affecting women

- Promote effective and sustainable management of available resources involving women for livelihood security
- Strengthen the gender database to meet the requirement of students, researchers and other stakeholders
- Foster collaboration and linkage with public and private institutions both at national and international level to share and learn new knowledge and experiences
- Promote S & T based innovations to empower women for meeting diverse gender needs
- Develop mechanisms to facilitate integration of gender perspective in agricultural R & D initiatives

Farm and home are inseparable, so are men and women,
like two wheels of a cart.

Science & Technology for women

Advancement of science and technology in different fields has created new vistas for progress and well-being of humankind. Agriculture is one such field that continues to benefit from new knowledge and technological breakthroughs. An important aspect of all these changes that was missing earlier, but has gradually been realized is the scope and opportunities of agricultural knowledge & technologies for women. There are many technologies developed and standardized for agriculture by the National Agricultural Research System. But their potential for women and agriculture has not been adequately demonstrated. Directorate of Research on Women in Agriculture would strive to harness the potential of science and technology by empowering women and demonstrating the benefits. Subsequently, the technology based models would be up-scaled for wider impact. Some of the areas that would be focused for empowerment of women are:

- **Crop production and diversification :** adoption of varieties with improved and acceptable traits for both home and market, eco-friendly management practices such as integrated pest management practices, cropping/farming systems, conservation technologies etc.

- **Horticulture & floriculture** : improved, dwarf, high yielding varieties/ hybrids, nursery technologies, protected cultivation, meadow orcharding, inter-cropping and management practices, INM & IPM, use of bio-technology, micro-irrigation etc.
- **Livestock production & management** : feed management using locally available materials, health management, farming systems, small ruminants and poultry, use of improved socially acceptable breeds /varieties etc.
- **Aquaculture** : low cost technologies including poly culture, integrated fish farming, nursery rearing, management of backyards and community ponds through women groups, etc.
- **Tools and equipment** : evaluate, refine and develop women friendly tools and equipment for drudgery reduction in agricultural operations.
- **Post-harvest management and value addition** : low cost, eco-friendly storage practices, packaging and processing etc.
- **Home management** : human development, energy saving practices, time and resource management, recycling of household wastes, inner environment etc.
- **Food and nutrition** : assessment of nutrition gap, development of module for nutritional education, develop and standardize models of nutrition gardens etc.

The processes of liberalization, globalization & climatic changes might have pushed the farming community into a situation of increased the risk and uncertainty emanating from structural changes, dwindling crop prospect, technological changes, market volatility,, institutional constraints etc. But at the same time, new and expanding opportunities also galore that need to be tapped through more and more use of scientific knowledge and technology.

A viable strategy could be harnessing the untapped potential of women and promoting gender mainstreaming in agriculture. Some positives favouring such a strategy are emerging technological and market opportunities, increasing literacy among women, more favourable policy environment, increasing attention to women with incentives, good number of schemes in agriculture with gender focus and increasing investment in agriculture etc.

Strategy and Framework

A 6-point strategy would be adopted by the Directorate of Research on Women in Agriculture to accomplish its vision and mission.

❖ **Develop a strong human resource base in the institution**

- Strengthen scientific manpower base by including more number of scientists from the discipline of agricultural economics and extension;
- Work out areas of specialization among scientists and identify key areas of training for scientists in national and international organizations;
- Facilitate exposure of scientists to international scenario and develop mechanism for regular exchange of knowledge, ideas and experiences;
- Create an enabling environment for scientists to harness their talent and promote creativity;
- bring in organizational reforms and adopt new technologies for better management and improving efficiency.

❖ **Improve research efficiency and relevance**

- Better research planning to identify priority areas of research and take up research on issues having both immediate and long term implications;
- link research to development needs and challenges of farmwomen and agriculture;
- Encourage team research with multi-disciplinary and multi-stakeholder approach and promote healthy interaction among scientists ;
- Establish mechanism for regular scientist-clientele interface to get feedback on changes and problems for new research perspective;
- Develop mechanism to monitor and evaluate research progress by linking research success to both quantity and quality of output and its utility for end-users

❖ **Facilitate accelerated dissemination of gender based information & knowledge**

- Organize workshops and interfaces to inform stakeholders of new knowledge, ideas and concepts;

- Dissemination of gender related messages among wider spectrum of audience warranting public and stakeholder attention and action;
 - Improve documentation to generate quality knowledge products based on research for different stakeholders;
 - Strengthen the ICT capability to create network of end users and prompt sharing of knowledge ;
 - Create a flexible mechanism to meet the demand of stakeholders for gender based knowledge, products etc.
- ❖ **Create a large pool of gender sensitized and competent professionals**
- Organize regular gender sensitization programmes and need based training for institution heads and R & D professional with more emphasis on outreach programmes for R&D stakeholders;
 - Develop quality training modules in relevant areas for better understanding and appreciation of gender issues in agriculture ;
 - Develop mechanism to create a group of first rung professionals in different regions with capability to address gender issues
- ❖ **Expand the reach of DRWA to broad base the R & D activities**
- Develop networks and linkages with interested and relevant institutions for collaborative research
 - Identify areas of common interest; prepare clear guidelines acceptable to institutions on share responsibilities and resources among institutions
- ❖ **Strengthen the gender information system**
- Acquire equipment with latest technology and necessary software for the data centre to meet the requirement of next 20 years;
 - Develop new modules for creating databases and enrich database through regular updating with latest information from diverse sources;
 - Develop mechanism to compile information from different resources ;
 - Create user-friendly information retrieval system.

Epilogue

The Directorate of Research on Women in Agriculture is prepared to face the challenges of addressing gender issues, and create opportunities for women in agriculture in the face of rapidly changing agricultural scenario. We envision that educated, informed and empowered women can contribute to sustainable and inclusive development. Therefore a two-way approach; focusing on women's need & capability and focusing on exigencies and opportunities in agriculture will be paramount. DRWA is committed to create an environment of greater gender sensitivity and a culture of gender parity within NARS and outside. It will work towards strengthening gender perspective in agricultural research so as make output of research more relevant and appropriate, and there is enhanced scope for appreciation and application of findings.

Concerted efforts will be made to create gender sensitized and capable professionals who would be instrumental in guiding gender based action. S&T based innovations and institutions would be developed to reduce the vulnerability of women against shocks. DRWA has developed a well-thought strategy to reach out to stakeholders, institutions and join hands for harnessing the benefits of Science and Technology. We are sure, with participation of all the stakeholders, DRWA can bring a great difference in the system and in the lives of women in agriculture.

Gender mainstreaming is the current international approach for advancing gender equity and equality in the society. It involves incorporating gender perspective into policies, plan, programmes and projects to ensure that these impact women and men in an equitable way.