

CIFE/FEESD

Fisheries Extension

MFSc Syllabi 2014

***Board of Studies in Fisheries Extension
Fisheries Economics, Extension and Statistics Division
Central Institute of Fisheries Education(ICAR)
Versova, Mumbai***

M.F.SC. - FISHERIES EXTENSION

Course Structure

Course No.	Course Title	Credit Hours	Minimum Credit Requirements
A	A1 MAJOR - CORE COURSES		12 Credits
1	FEX 501 Perspectives and Practices of Extension	2+1	
2	FEX 502 Extension Communication and Methods	2+1	
3	FEX 503 Diffusion and Adoption of Innovations	2+1	
4	FEX 504 Extension Management and Human Resource Management	2+1	
	A2 MAJOR - OPTIONAL COURSES		8 Credits
5	FEX 505 Community Organisation and Entrepreneurship Development	2+1	
6	FEX 506 Gender, Livelihood and Development	1+1	
7	FEX 507 Development Journalism	1+2	
8	FEX 508 Planning and Management of Development Programs	1+1	
B	MINOR COURSES (Courses outside major discipline / from other relevant disciplines)		9 Credits
C	SUPPORTING COURSES		5 Credits
Total Course Work Credits			34 Credits
D	MASTERS' SEMINAR		1 Credit
	FEX 591 Masters' Seminar I	0+1	
E	FIELD TRAINING		2 credits
	FEX 551 Field Training / Internship	0+2	
F	MASTERS' RESEARCH		20 Credits
	FEX 599 Masters' Research (Semester III)	0+10	
	FEX 599 Masters' Research (Semester IV)	0+10	
Total Minimum MFSc Program Credits			57 Credits

MFSc - FISHERIES EXTENSION
Course Contents

FEX 501 PERSPECTIVES AND PRACTICES OF EXTENSION 2+1

- Objective:**
1. To gain analytical insights about different concepts, principles, praxis, recent changes and emerging challenges in fisheries extension
 2. To acquire skills required to practice various fisheries extension approaches.

Theory

Unit I Understanding extension education, extension research, and extension service; overview of historical and emerging extension in India and world; formal, informal, adult, continuing and distance education systems; overview of fisheries research and extension systems in India (NARS & NAES); scope and importance of fisheries, agriculture and veterinary extension in rural development.

Unit II Principles and approaches of fisheries and aquaculture extension: overview and their critique; extension gap; learning theories, pedagogy and andragogy; epistemology of indigenous *vis-à-vis* scientific knowledge; attitude - meaning, characteristics and factors affecting attitude change.

Unit III Extension/ToT programs of ICAR/SAUs: FLD, OFT, KVK, TAR-IVLP, ITD-SREP, ATIC, NAIP, FSR&E; CDP and IRDP; extension system of State Fisheries and Agri. Departments; extension approach of BOBP-IGO, FFDA, ATMA and NGOs; Market led extension approaches; Globalization, IPR and Extension; Extension policy and National Mission on Agricultural Extension and Technology.

Practical Case studies on extension approaches practiced by select state DoFs, FFDA's / BFDA's, select NGOs; Marianad model, Versova model, BENFISH model; AMUL model; International cooperation in agriculture & fisheries - SAIC, Commonwealth, FAO, USAID, DFID and CGIAR system; Extension systems of select countries (USA, UK, Japan, Philippines, Israel); Exercise on co-learning approaches; Field exposure on extension activities by DoF and other agencies; Production to consumption and end-to-end innovative approaches.

- Suggested Readings**
1. C. Ramchandran, 2004, Teaching not To F(in)ish: A constructivist Perspective on Reinventing a Responsible Marine Fisheries Extension System, CMFRI, Kochi
 2. Dilip Kumar, 1996, Aquaculture Extension Services Review: India, FAO Fisheries Circular No. 906, FAO, Rome
 3. Ray, G. L.(2006). Extension, Communication and Management. Sixth edition, Kalyani Publication (PD)
 4. Van Den Ban and Hawkins, 2002. Agricultural Extension (2ndEdn), CBS Publishers, Delhi.
 5. Malhotra, S.P. and Sinha, V.R.P. 2007. Indian Fisheries and Aquaculture in a Globalizing Economy Part II, Narendra Publishing House (RS)
 6. Chandrasekhar (Ed.), *Privatization of Agricultural Extension in India*. MANAGE, Hyderabad.

Objective:	<ol style="list-style-type: none"> 1. To learn about different communication strategies used in group and mass communication 2. To learn about application of extension methods and communication aids
Theory	Communication: concept, process, scope, channels and models; message: meaning, dimensions, characteristics, treatment and effectiveness; intrapersonal and interpersonal communication; group and mass communication; credibility, fidelity, empathy and feedback in communication
Unit I	
Unit II	Communication: problems, barriers, distortion, noise, overcoming barriers, homophily and heterophily; traditional media; organizational communication
Unit III	Extension teaching methods: selection, planning, use; demonstration, exhibition, farmers fairs, field days, tours; basics of agricultural journalism
Practical	Audio Visual aids: classification, selection; communication skills: public speaking; Photography: principles and use in extension; designing extension materials: publications, bulletins, folders, leaflets, booklets, newsletters, popular and scientific articles; script writing
Suggested Readings	<ol style="list-style-type: none"> 1. Van Den Ban, A.W., Communication for Rural Innovation: Rethinking Agricultural Extension, Blackwell Pub. 2. Harry A. Carey, Food & Agriculture Org., Communication in Extension: A Teaching and Learning Guide 1999 3. Francis Xavier Moakley, Handbook of audio-visual aids, Publisher: Harcourt Brace Jovanovich (1973) 4. R K Samanta (1990) Development Communication for Agriculture. D.K. publishers. New Delhi 5. K B Mathur (1994) Communication for Development and Social change. Allied Publishers Limited, New Delhi 6. Lesiskar, R.V. and Pettit, J.D., Business Communication, Tata Mc Graw- Hill 7. Locker, K.O. & Kaczmark, Business Communication-Building Critical Skills, Ta McGraw Hill

Objective:	<ol style="list-style-type: none"> 1. The participants will be able to identify the elements of diffusion process in fisheries sector&state the role of change agents and diffusion systems 2. The participants will be able to explain the role of ICT in diffusion process.
Theory	Elements of diffusion; diffusion research; innovations in fisheries – innovation development process; Identification, characterization, documentation and validation of ITKs; factors affecting innovation and attributes of innovation; Concept and elements of diffusion and adoption for social change; Diffusion process, adoption process, models of diffusion and adoption, adopter categories and their characteristics; Factors influencing adoption and attributes of innovations; Concept, stages, and criticism of Innovation-decision process;
Unit I	
Unit II	Concept and theories of rural leadership; opinion leader – meaning, characteristics, types and their measurement; Rapport building; Training / communication skills for development of local leaders and key communicators; Change agent – meaning, roles, factors of success; Centralised and decentralised diffusion systems; innovation in organisations; Consequences of innovations - model and classification; Social and technological changes;
Unit III	Concept of ICT and its role in rural development, ICT tools, print and electronic media, recent communication technologies - web based technologies, video conferencing, computer assisted instructions, information kiosks, cyber extension / e-extension, Village Resource Centres, e-Governance and NEGP; kisan call centres; community radios; basics of audio and video technology; mobile communication. Networking system of information and challenges in use of ICTs, types of network- PAN, LAN, WAN, Internet, AGRINET, AKIS/MAKS, Agripedia, ICT programmes in fisheries development; Use of expert systems.
Practical	Concept mapping;describing fisheries technologies; explaining case study of the diffusion process of select fisheries innovations; identifying success storeis where ICT is used in diffusing knowhowlike aquachoupal and e-sagu projects, Warana project and Gyandoot project; identifying important ITKs in fisheries.
Suggested Readings	<ol style="list-style-type: none"> 1. Rogers, Everett M. (2003). <i>Diffusion of Innovation, Fifth Edition</i>. New York, NY: Free Press.ISBN 0-7432-2209-1 2. Davies, Stephen (1979). <i>The Diffusion of Process Innovations</i>. Cambridge University Press. Cambridge 3. Grenier, Louise (1998): 'Working with Indigenous Knowledge', International Development Research Centre, Canada 4. Warren, Michael D and others (1995): 'The Cultural Dimension of Development: Indigenous Knowledge Systems', Intermediate Technology Publications, London. 5. Warren, Michael D, G.W.von Liebenstein and Slikkerveer (1993). Networking for indigenous knowledge. In Indigenous Knowledge and Development Monitor. Vol. 1 (1) pp 2-4. 6. http://www.youtube.com/watch?v=B5Kx0hV6jhY

Objective: To familiarize the students with basic concepts of HRM, OB and Training with special reference to organizations in fisheries sector.

Theory
Unit I Concept and principles of administration and management, classical and modern theories, schools of management thought. Functions of management – planning, organizing, staffing, directing and leading, controlling, coordinating, reporting and budgeting. Concept of HRM and methods, job satisfaction and morale, performance appraisal. Concept of organisational behaviour, organizational effectiveness, organizational climate, organizational development, coordination at different levels of extensionmanagement, methods of coordination. Management by Objective (MBO) and Total Quality Management (TQM).

Unit II Personnel management, scope of Agri/Fish Business Management and Institutions – MANAGE, IIPM, NIRD, EEI and NAARM. Critical analysis of organizational set up of extension administration at various levels. Management Information System. Decision-making and Problem Solving Techniques, Motivational Theories & Techniques, Work motivation;

Unit III Training and development of human resources; identifying training needs and assessment of training impact; training principles: importance, methods and factors; phases of training: pre-training and post training; developing training modules, training requirements, training methods; lecture cum demonstration method, case method, group brain storming, syndicate method, business games, simulation exercises, in-basket exercise, programmed instruction, experiential learning techniques such as sensitivity training, T-group, evaluation of training: types and techniques of training evaluation.

Practical Team buildingprocess and strategies at organizational and village levels, group dynamics, negotiation;conflict management;time management;change management;stress management;leadership styles;motivation techniques;Training need assessment for different clientele groups; Designing training tools and manuals on fisheries; Organising and conducting fisheries training programmes; Evaluation of training - before and after, Transactional analysis and fish bowl exercises;

- Suggested Readings**
1. Decenzo, D.A. and Robbins, S.P., 2009. Fundamentals of Human Resource Management, John Wiley and Sons.
 2. Randall S. Schuler, Susan E. Jackson, 2008. Strategic Human Resource Management, Wiley India.
 3. Wilson, F., 2010. Organizational Behaviour and Work: A Critical Introduction, Oxford University Press, USA.
 4. R.P. Singh, A. Jhamtani and Premlata Singh (1996), Training Management . Jain Publishers, New Delhi
 5. Lynton R.P and Pareek U (1973) Training for Development. Sage publications
 6. Misra D C (1990) New Directors in Extension Training. Directorate of Extension, Ministry of Agriculture, New Delhi

FEX 505 COMMUNITY ORGANISATION AND ENTREPRENEURSHIP DEVELOPMENT 2+1

- Objective:**
1. The participants will be able to explain the concepts associated with community organizations and describe the participatory methods and their role in empowering fishers.
 2. The participants will be able to describe entrepreneurship and related programmes

Theory
Unit I Sociological perspectives of society and culture; Community Organisation (CO): Meaning and Models; Understanding of basic rural institutions, social structures, culture, norms, and relevance of CO; Social conflict and CO; NGOs; Self Help Groups - concepts, organisation, mobilization, micro-finance and functioning of SHG for empowerment and sustainability; Concept of power, dimensions of power relevant in CO Process; Social Action; Local Self Governance; Rural-Urban divide.

Unit II Participatory methods and techniques - Participatory Learning Approach (PLA) and participatory action learning method (PALM); RRA and PRA: concepts, tools and process; FGD, SWOL/T; participatory research and technology development; selection of participatory methods and their uses; Mobilization and empowerment skills: concept and strategies in mobilization, concretisation and empowerment of rural people; Social auditing.

Unit III Entrepreneurship development - concept, significance and scope; programs and agencies promoting entrepreneurship; Types and techniques of training for developing entrepreneurial activities in various areas; Agripreneurship, Agri-clinics and agribusiness centres; Producer companies and cooperatives; Technology Parks.

Practical Describing some fisher communities and their specialities; Exercise on gender equality; Exercise on community consciousness; Exercise on recognizing the good aspects of community members; Exercise in conflict management; Conducting RRA/PRA in select village; Conducting FGD and developing action plans; Case studies on participatory aquaculture extension approaches; case studies on fisheries co-management / community based fisheries management; Case analysis of selected entrepreneurs in fisheries.

- Suggested Readings**
1. R.Chambers, P. Arnold and Thrupp (1989) Farmers First: Farmer innovation and Agricultural Research. Intermediate Technology.
 2. N. Mukherjee(1997) Participatory Rural Appraisal, Methodology and Applications, Concept Publishing Company, New Delhi.
 3. Roger L. Martin & Sally Osberg (2007) Social Entrepreneurship: The Case for Definition, Stanford Social Innovation Review
 4. <http://www.ngobiz.org/picture/File/Social%20Entrepreneur-The%20Case%20of%20Definition.pdf>

- Objective:**
1. To gain conceptual understanding on issues related to the gender, livelihood and development
 2. To understand the trade-off between gender, livelihood and development

Theory
Unit I Basic concepts of gender;historical perspectives: Women in development (WID), Gender and development (GAD);practical needs vs. strategic gender interests;social construction of gender: culture, society, family, home, ideologies, patriarchy, social life of fishers: family, religion, caste; gender sensitivity in extension education programmes; mainstreaming gender in agricultural and fisheries extension system.

Unit II System of national accounts (SNA activities and Non SNA activities), gender and climate change, gender in community diversity and its implication for empowerment; gender tools and methodologies: dimensions and methodologies for empowerment; gender budgeting; gender specific technologies; gender issues and development: health and nutrition, violence, governance, education and media.

Unit III Concept of livelihood; Sustainable Livelihood Analysis framework; relevance of capture fisheries in food, nutrition, employment, income and livelihood securities of fishers; exploitation and utilization patterns; fisheries regulations and livelihoods; women in fisheries: status, role, impact, future; women oriented developmental programs (fisheries, Agricultural, Animal Husbandry and Dairy); vulnerability of fishers to changes in resource availability, natural disasters and coping mechanisms in disaster management.

Practical Gender analysis frameworks; gender aware policy;gender sensitive indicators: HDI, GDI, GEM;case studies on marginalization of fishers, small scale processors and traders due to changing scenarios of product diversification, markets and trade; livelihood impact of dams, river linking, alternative livelihood options; conflicts within sub-sectors of fisheries

- Suggested Readings**
1. Agarwal Bina (1994) A field of one's own: Gender and Land rights in South Asia, Cambridge: Cambridge University Press.
 2. Menon Nivedita (1999) Gender and Politics in India, New Delhi: Oxford.
 3. Agarwal, B., 1986. Women, Poverty and Agricultural Growth in India, JPS, New Delhi.
 4. Bhasin, K., Understanding Gender, New Delhi, Kali for Women, 2000
 5. Patricia Uberoi, 2009. Freedom And Destiny: Gender, Family, and Popular Culture In India, Oxford University Press, New Delhi
 6. Report on Conditions of Work And Promotion of Livelihoods In The Unorganized Sector by National Commission For Enterprises In The Unorganized Sector, Gol, Academic Foundation, Delhi, 2008.

FEX 507

DEVELOPMENT JOURNALISM

1+2

- Objective:**
1. To gain critical awareness and reflective ability necessary to identify, articulate and analyse major issues in fisheries development
 2. To gain knowledge on the different skills applicable in journalism

Theory
Unit I Media industry, concepts and theories in practice of news writing; relating theories of journalism to professional practice; Development journalism – meaning, principles, importance and scope; challenges in development journalism.

Unit II Basics of news production – gathering, writing and editing news for print media, visual media and online news; photography and art, copyediting and proofreading, word processing, computer layout and design; Script development and Story board preparation; Organization of content - choice of media, categorization of photographs, queuing of audio and video clips, logical sequencing, text entry.

Unit III Magazine journalism - profile and feature writing; Radio and television journalism - principles and practices of gathering, writing and producing news for radio and television; Photo journalism - visual language, skills and techniques; New media journalism – websites and blogs, writing, editing and site design skills for online journalism; Responsible journalism - fairness and balance, libel, and the commercial nature of the media, constructive criticism; advertisements – principles and practice; careers in journalism.

Practical Identification, articulation and analysis of major issues related to fisheries development; critical analysis of fisheries related news stories and feature articles from development magazines / newspapers; Gathering and writing news stories, feature articles and editorials; Designing, editing and publishing campus newsletters; interface with editors of journals and magazines; Critical analysis of fisheries related radio news stories; Producing radio news items for broadcast; digital photography and image editing; media organizations and news agencies. Study and practice of various kinds of video editing systems. Practice and use of digital photography. Visits to select printing presses.

- Suggested Readings**
1. Bond F.F. – An Introduction to Journalism, Mac-millan, Company, New York.
 2. Wainwright David – Journalism made simple, Rupa&Heinemani, London.
 3. Kamat M. V. – Professional Journalism, Vikas, New Delhi.
 4. Wolenloy Roland – Journalism in Modern India, Asia Publishing, House, London.
 5. Aggarwal VirBala, Gupta V.S. – Handbook of Journalism & Mass Communication, Concept Publishing Company, New Delhi.
 6. Ray G L (2005) Journalism, Kalyani Publishers.

Objective: 1. To understand different aspects of planning processes
 2. To acquire competency to plan, implement, monitor and evaluate extension and development programs

Theory
Unit I Planning and socio-economic development; planning experience in India; agriculture and fisheries development over plan-periods; fisheries development *vis-à-vis* fisheries for development;

Unit II Concept, steps, principles and theories of program planning; Steps in extension program planning, theoretical models of program planning; Felt needs; need -based programs;

Unit III Program and project; Project Management Techniques - PERT and CPM; Logical Framework Analysis (LFA); Social cost benefit Analysis (CBA); Monitoring & evaluation – significance, types, methods & tools; SWOT/TOWS analysis of development programs; Participatory Monitoring and Evaluation (PROME); people’s participation in extension programs;

Unit IV Agriculture, fisheries, tribal and rural development programs in India; Women, children and youth development programs; design, institutional mechanism and performance of NREGS; village and district development plans; developmental strategies such as watershed development programs; coordination and convergence.

Practical Exercises on PERT, CPM, LFA, SLA; Case studies on performance assessment of fisheries / agricultural development programs; Exercises on developing a fisheries extension project; Exercises on developing village and district fisheries development plans; Case studies on PROME; Study visits to selected extension project areas; international cooperation in agriculture/fisheries

Suggested Readings

1. Dutt, Ruddar and Sundaram, K.P.M., 2009. Indian Economy, S. Chand Publications, New Delhi
2. Dreze, Jean and Sen, Amartya (ed.), 2007. Indian Development: Selected Regional Perspectives, Oxpord University Press, New Delhi
3. Jhingan,M.L., 2009. Economics of Development and Planning, Vrinda Publications
4. Korakandy, Ramakrsihnan, 2008. Fisheries Development In India: The Political Economy Of Unsustainable Development (Volumes I&II), Gyan Publication.
5. Planning Commission, 2006, Report of the Working Group on Fisheries for the Eleventh Five Year Plan (2007-2012), Gol. www.planningcommission.gov.in/
6. [www.nrega.nic.in](http://www.nrega.nic.in;); www.dahd.nic.in; www.mospi.nic.in

Broad Research Areas

1. Comparative study on performance of public, private and market led extension systems
2. Performance and Impact of ATMA model of Service Delivery / Knowledge Dissemination
3. Communication effectiveness of different media
4. Impact of Community radio and ICT led extension systems
5. Case studies on Co-management and CBFM experiences in India
6. Training need assessment of State Department of Fisheries
7. Recruitment policy and career advancement in State Department of Fisheries
8. Role and importance of PRIs and NGOs in implementing fisheries development programs
9. Critical factors in successful development of community based organizations
10. Reach and impact of fisheries innovations
11. Stakeholder analysis of fisheries innovations
12. Developing effective interactive e-learning and multimedia products
13. Reach and impact of fisheries innovations
14. Socio-economic impact assessment of development Programs
15. HRM practices of various State Fisheries Departments, NGOs and private consultancies
16. Division of labour and gender equity among fishing communities
17. Content analysis of development oriented articles / features in print /electronic media for their reach, readability, and persuasion and conviction
18. Political economy of mass media and development journalism
19. Case studies on documentation and validation of ITK practices in fisheries sector
20. Impact of Tsunami 2005 on fishers livelihoods and fisheries, and rehabilitation efforts
21. Pattern of rehabilitation work and its impact
22. Returns to investment in fisheries and aquaculture extension
23. Evolving participatory result oriented monitoring and evaluation system for fisheries development programs in developing countries.
24. Developing appropriate scaling technique for measuring the attitude of fishers towards conservation technologies
25. Professionalism in Service Delivery System
26. Performance of Public and NGO led extension systems
27. Developing and field testing of effective training tools for trainers
28. Conflict between small scale fishers and large scale fishers and in(adequacy) of the present resolution mechanism
29. Social change, mobility and integration in fishing communities
30. Case studies on success stories in use of ICT for fisheries development
31. Limiting factors in effective use of ICT for Development
32. Comparative study of effectiveness / performance of extension systems in India and Indonesia / Thailand
33. Levels of Workload among Fishers and their impact on Health

List of Journals

1. Agricultural Economic Research Review
2. Agricultural Extension Review
3. American Journal of Evaluation
4. British Journal of Educational Technology
5. Disastermanagement& response
6. Disaster prevention and management
7. Down To Earth
8. Economic and Political Weekly
9. Ergonomics
10. Evaluation Journal of Australasia
11. Extension Review
12. Gender & Society
13. Gender, Work and Organization
14. Honey Bee
15. Indian Journal of Agricultural Extension
16. Indian Journal of Extension Education
17. Indian Journal of Mass Communication
18. Indian Journal of Public Administration
19. Indian Journal of Social Science Research
20. Indian Journal of Social Work
21. Indian Journal of Traditional Knowledge
22. Indian Research Journal of Extension Education
23. International Journal of Agricultural Extension
24. International Journal of Education and Development using ICT
25. International Journal of Project Management
26. International Journal of Social Research Methodology
27. International Journal of Training and Development
28. Journal of Communication
29. Journal of Extension Education
30. Journal of Extension Systems
31. Journal of Rural Development
32. Journal of Social Work
33. MANAGE Extension Research Review
34. Politics and Gender
35. R&D Journal of Information & Communication Technologies
36. Rural Sociology
37. The Journal of disaster studies, policy and management
38. The Journal of Gender Studies
39. The Journal of Vocational Education and Training
40. The Project Management Journal
41. Vikalpa